



Clear Ballot

ClearVote 2.1

ClearDesign User Guide

ClearDesign User Guide

Clear Ballot Part Number: 100041-10017

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Preface

This section defines the purpose of this document. It contains the following subsections.

- About this document
- Scope of this document
- Intended audience
- Contact us

About this document

This document describes how to use ClearDesign.



A ClearVote® system can comprise the ClearAccess®, ClearAudit®, ClearCast®, ClearCount®, and ClearDesign® products. Jurisdictions are not required to purchase all products. You can ignore references to any ClearVote products that are not part of your voting system. Also ignore implementation options that are not relevant to your policies and procedures.

Scope of this document

This document contains the following sections:

- [Chapter 1. Introducing ClearDesign](#)
- [Chapter 2. Getting started with ballot development](#)
- [Chapter 3. Formatting ballot text](#)
- [Chapter 4. Developing election templates](#)
- [Chapter 5. Developing elections](#)
- [Chapter 6. Developing ballots](#)
- [Chapter 7. Proofing elections](#)
- [Chapter 8. Election backup and export](#)
- [Chapter 9. Ballot proofing reports](#)
- [Chapter 10. Logs](#)
- [Appendix A. Supported data import formats](#)

Intended audience

This document is intended for election officials and election staff who are responsible for operations and maintenance before, during, and after an election. This document is also used by Clear Ballot personnel who support election officials and election staff.

Contact us

Clear Ballot Group welcomes your feedback on our documentation. Please send comments to Documentation@ClearBallot.com.

If you have questions about using your ClearVote product, contact your Clear Ballot representative.

Chapter 1. Introducing ClearDesign

This chapter explains basic concepts necessary for understanding the ClearDesign election management system (EMS).

1.1 Overview of the ClearDesign EMS

The ClearDesign EMS is a ballot design, proofing, and production system. The user interface makes setting up and managing elections and ballots intuitive and simple.

The system has a browser-based user interface that is consistent, streamlined, and easy to use. Election department staff can quickly create elections and then generate, modify, and proof all ballot styles. Jurisdictions can also localize terms that appear in the user interface and on ballots.

With ClearDesign software, election officials can create ballots for a wide range of card sizes. They can review and modify each ballot individually using editing controls and drag-and-drop capabilities, then lock in changes and generate a revised version immediately. Highly visual ballot-proofing tools streamline verification prior to printing.

ClearDesign gives officials greater control when they create elections. ClearDesign's modern software architecture is built around role-based security. Election data resides on a secure server, which prevents unauthorized access.

1.2 Supported browser

ClearDesign is a browser-based application that runs on a Windows computer called a DesignStation. The currently supported browser is Google Chrome. The ClearDesign installation package loads the currently supported version of Google Chrome on the DesignStation.

1.3 Users, roles, and permissions

The *ClearDesign Administration Guide* provides details about users, roles, and permissions. A *role* is a group of permissions. Each user's permissions are based on the user's assigned role.

Because roles and permissions are configurable, your assigned role may not allow access to all of the documented features described in this *User Guide*. If you have any questions about your permissions, consult your ClearDesign administrator.

1.4 Parts of an election

Table 1-1 lists the parts on an election.

Table 1-1. Parts of an election

Election Part	See
Jurisdictional information	"Setting up languages" on page 85 "Setting up voter groups" on page 100
Geographic information	"Setting up district categories and districts" on page 104 "Precincts" on page 109 "Splits" on page 114
Election definition	"Contests" on page 119 "Adding or editing candidates" on page 136
Ballot design	"Ballot generation, layout, and design" on page 169 "Setting up headers" on page 138

1.5 Parts of a ballot

Figure 1-1 shows the parts of a ballot. In this figure, the labels in red squares (a, b, c, and so on) identify the elements contained in a ballot.

a VOTE BOTH SIDES

b

c 01 (Greater Madison City Area)

d President of the Unified States

e Representative To the United States Senate District 01

Figure 1-1. Parts of a ballot

A ballot card can include any of the elements listed in Table 1-2. In this table, the Label column refers to Figure 1-1

Table 1-2. Elements of a ballot

Label	Element	Description
a	Header	Typically used to group contests, label sections, and provide instructions
b	Image	Seals, logos, or facsimile signatures that appear in headers
c	Identifiers	Information such as a precinct code, card ID, or voter group. You can use macros for this information.
d	Contests	Consists of the office or question and candidates and choices
e	Timing marks	Communicate ballot information to the tabulation system

1.6 Ballot development workflow

The ballot development workflow is flexible, allowing jurisdictions to combine imported and manual data entry. ClearDesign saves work automatically and allows for multiuser simultaneous editing. In addition, each phase of election creation can be tagged so that work can be completed across several sessions.

This process may consist of manual data entry, data import, or both, depending upon the size and complexity of the election.

In some jurisdictions, importing state-election data populates language, voter groups/parties, district categories, districts, precincts, voter registration, contests, and candidate, question, retention and recall information. Therefore, manual data entry is unnecessary. Check the data on the screen with the import file to ensure accuracy.

The workflow is as follows:

1. Create the election template:
 - a. Create the election in ClearDesign or import an existing election.



Imported data cannot be modified.

- b. (If not imported) Set up languages.

Language setup can also include editing, translating, and recording device messages for accessible devices used for ClearAccess.

- c. (If not imported) Set up voter groups (parties).

- d. (If not imported) Set up district categories and districts.
 - e. (If not imported) Set up precincts and splits.
 - f. Verify or link precincts to districts.
 - g. (If not imported) Enter voter registration data.
 - h. Proof the election template.
 - i. Save the election template.
2. Enter the specifics of the election:
- a. Restore the election template.
 - b. (If not imported) Define contests (all types).
 - c. Define headers, including images and macros.
 - d. Configure any central scanner or accessible marker devices.
 - e. (Optional) Define vote center categories and vote centers.
 - f. Verify or link vote centers to precincts.
 - g. Refine the formatting of ballot text.
 - h. Translate and record ballot text for supported languages.
 - i. Proof the election definition.
3. Produce the election:
- a. Edit ballot set layout styles.
 - b. Reset and generate ballot styles.
 - c. Lay out ballot cards.
 - d. Proof ballot cards.
 - e. Export ballot PDFs.
 - f. Export ballot definition files (BDFs).
 - g. Export accessible definition files (ADFs).
 - h. Back up the election.



Clear Ballot strongly recommends periodic backups of elections under development.
Back up before introducing major changes to any aspect of an election.

Do *not* export the BDF, BDFx, or ADFx files and create elections in ClearCount and ClearAccess until you are certain that the election identity (name and date) and card layouts are final. Thorough proofing is essential to make this determination. If it becomes necessary to redefine the election or reset ballot styles, the new media invalidates the previous media. If this occurs, you must delete and recreate the election in ClearCount and ClearAccess. Replacing the election causes the loss of any accumulated data.

1.7 Election states

The Election State is a column that appear by default on the Elections view. The *election state* indicates the level of completion of the ballot-development process.

Available election states

Table 1-3 lists and describes the ClearDesign election states.

Table 1-3. Election State

Election State	Description
1. Election Created	(Default). All entities are editable.
2. Ballots Created	Any actions that can change ballots are unavailable.
3. Cards Created	Any actions that can change cards are unavailable.
4. Media Created	Any actions that can change media are unavailable.

Election states correspond to the typical ballot development process and are cumulative. The base election state is Election Created. You can edit any entity when the election is in this base state if the role assigned to your user name has the appropriate permissions.

Advancing the election state continues the restrictions from previous state and adds the restrictions of the current election state.

You can return to a previous election state if revisions are necessary.

You can import data to or export data from ClearDesign only while in the Election Created state. However, you can back up an election in any election state.

Setting the election state

You can update the election state in the following locations:

- When you edit an election, ClearDesign displays the Election dialog for the currently selected election. You can change the **Election State** field of this dialog.
- When you click **Print** from the Ballot Sets tab, ClearDesign displays the Print Card dialog. If you select (check) **Set Election State To Cards Created** and click **OK**, ClearDesign advances to that election state.

See "Printing cards" on page 187.

- When you select **Export BDF** on the Info tab of an election, ClearDesign displays the Export BDF dialog. If you select (check) **Set Election State To Media Created** and click **OK**, ClearDesign advances to that election state.

See "Exporting a ballot definition file (BDF or BDFx)" on page 237

- When you select **Export ADF** on the Info tab for an election, ClearDesign displays the Export ADF dialog. If you select (check) **Set Election State To Media Created** and click **OK**, ClearDesign advances to that election state.

See "Exporting an encrypted accessible definition file (ADFx)" on page 235.

Chapter 2. Getting started with ballot development

This chapter describes the ClearDesign interface and demonstrates how to navigate through the parts of the system.

2.1 Logging in, password maintenance, and logging out

This topic describes logging in, password maintenance and logging out.

2.1.1 Logging in

To log in to ClearDesign:

1. In the address field of the browser, enter the ClearDesign web address provided by your system administrator.

ClearDesign displays the Please sign in dialog (Figure 2-1).

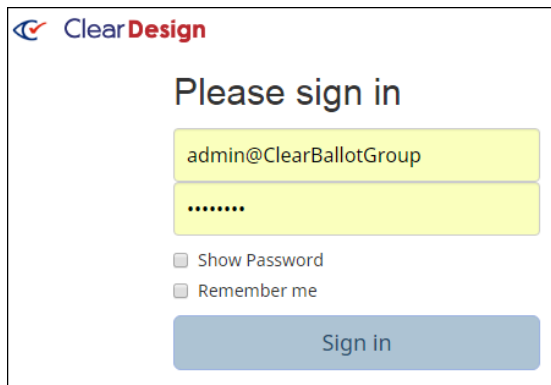
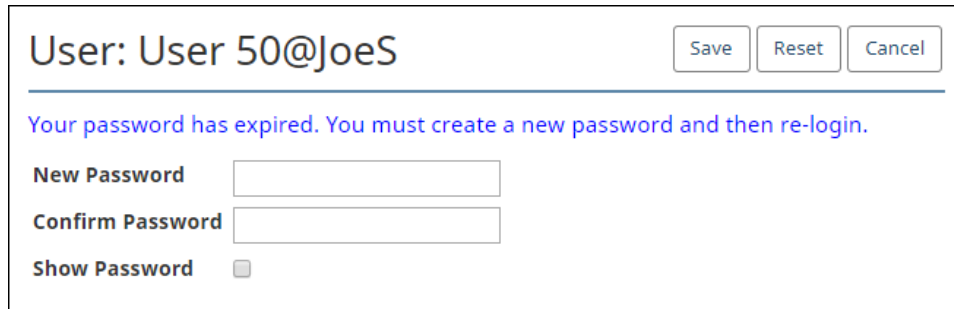
The image shows a web browser window displaying the 'Please sign in' dialog for ClearDesign. At the top left is the ClearDesign logo, which consists of a blue checkmark icon followed by the text 'ClearDesign' in blue. Below the logo, the text 'Please sign in' is centered. There are two yellow input fields: the first contains the email address 'admin@ClearBallotGroup' and the second contains a masked password '.....'. Below these fields are two checkboxes: 'Show Password' and 'Remember me', both of which are currently unchecked. At the bottom of the dialog is a blue 'Sign in' button.

Figure 2-1. Please sign in dialog

2. In the Please sign in dialog, enter the username and password provided by your system administrator.
3. If desired, select the following options:
 - To view the password that you enter, select **Show Password**.
 - To request the browser to store your user name and password, select **Remember me**.
4. Click **Sign In** or press **Enter**.
5. The next step depends on whether you are logging in to ClearDesign for the first time:
 - If you have previously logged in to ClearDesign, you can skip the remainder of this topic.
 - If this is your first time logging in to ClearDesign, the Change Password dialog appears (Figure 2-2).



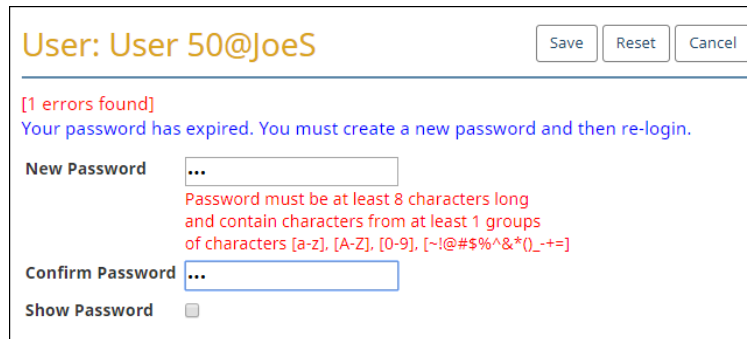
A screenshot of a 'Change password' dialog box. At the top, it says 'User: User 50@JoeS' in black text. To the right of this are three buttons: 'Save', 'Reset', and 'Cancel'. Below the header, a blue message reads: 'Your password has expired. You must create a new password and then re-login.' Underneath this message are two text input fields: 'New Password' and 'Confirm Password'. Below these fields is a 'Show Password' label followed by an unchecked checkbox.

Figure 2-2. Change password dialog

In the Change Password dialog, do the following:

- a. Enter a password in the **New Password** and **Confirm Password** fields.
- b. Optionally, to view what you type in these fields, select **Show Password**.

If your password does not meet the requirements set by your administrator, ClearDesign displays a message similar to Figure 2-3.



A screenshot of the 'Change password' dialog box showing an error. The header 'User: User 50@JoeS' and buttons are the same. The blue message is still present. Below it, a red message says '[1 errors found]'. The 'New Password' and 'Confirm Password' fields now contain three dots '...' instead of text. To the right of these fields, a red error message reads: 'Password must be at least 8 characters long and contain characters from at least 1 groups of characters [a-z], [A-Z], [0-9], [~!@#\$\$%^&*()_-=]'. The 'Show Password' checkbox remains unchecked.

Figure 2-3. Message indicating that your password does not meet requirements

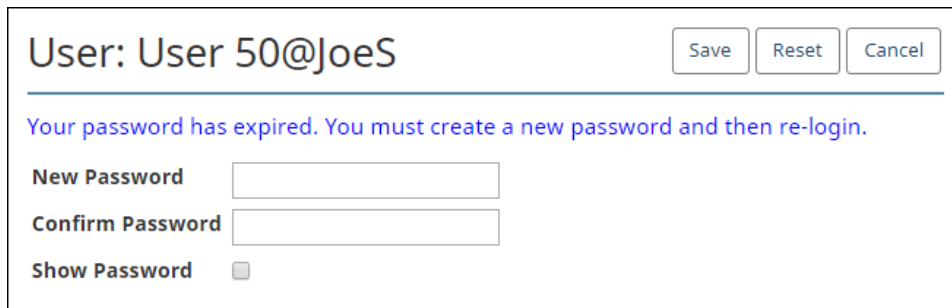
- c. Click **Save**.

ClearDesign saves your new password.

2.1.2 Changing a password

To change your password at any time:

1. Locate and click your username in the top right corner of the ClearDesign window.
2. Select **Change password** from the drop-down menu (Figure 2-4).



User: User 50@JoeS

Save Reset Cancel

Your password has expired. You must create a new password and then re-login.

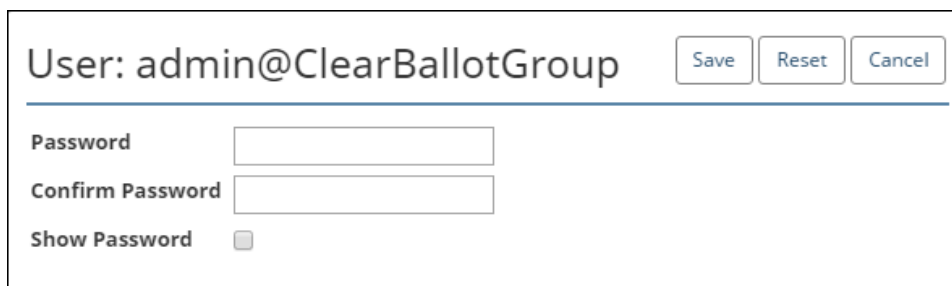
New Password

Confirm Password

Show Password ☐

Figure 2-4. Change password drop-down menu selection

ClearDesign displays the Change Password dialog (Figure 2-5).



User: admin@ClearBallotGroup

Save Reset Cancel

Password

Confirm Password

Show Password ☐

Figure 2-5. Change password dialog

3. Enter the new password in the **Password** and **Confirm Password** fields.
4. Optionally, select **Show Password** to view what you type in the **Password** and **Show Password** fields.
5. Click **Save**.

The new password is now in effect.

When you log in, ClearDesign also prompts you to select a new password if your current password has expired.

2.1.3 Setting up password recovery

The password-recovery capability enables you to reset your ClearDesign password if you forget it. This capability is enabled by default for users assigned an administrator role. This capability is also available if your administrator has enabled it for the role associated with your username.

To set up password recovery:

1. Locate and click your username in the top right corner of the ClearDesign window.
2. When the drop-down menu appears, select **Generate Password Recovery File** (Figure 2-6).

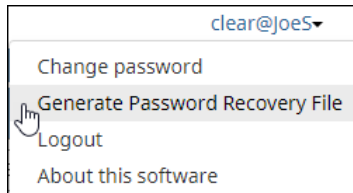


Figure 2-6. Generate Password Recovery—menu selection

3. When ClearDesign displays a prompt asking if you want to download the password recovery file, click **OK** (Figure 2-7).

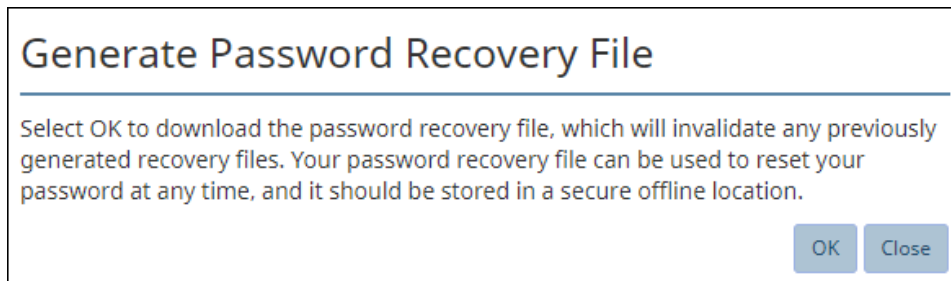


Figure 2-7. Generate Password Recovery—confirmation prompt

ClearDesign places the password recovery in your default Downloads folder and displays a confirmation prompt (Figure 2-8).

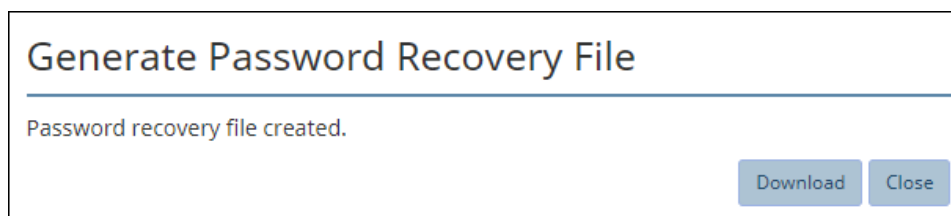


Figure 2-8. Password recovery file created—confirmation prompt

4. Click **Close** to dismiss the download-confirmation prompt.
5. Clear Ballot recommends that you move the password recovery file from your Downloads folder to a secure storage location, such as a USB drive.

2.1.4 Logging back in after an inactivity timeout

ClearDesign times out after an amount of inactivity specified by the administrator. The default inactivity value is 30 minutes.

If ClearDesign logs you out due to inactivity, a dialog appears that allows you to log in again.

2.1.5 Logging out

To log out of ClearDesign:

1. In the upper right corner of the ClearDesign window, click your username.
2. Select **Logout**.
3. Close the browser tab.

2.2 Navigation

The system provides the following mechanisms for navigating elections:

- Breadcrumbs
- The navigation pane and corresponding view (tabs) in the browser pane
- Browser window forward and back buttons

2.2.1 Breadcrumbs

The breadcrumbs (Figure 2-9) appear at the top of the window, below the ClearDesign logo. The breadcrumbs provide the path of screens that you visited to reach the current screen. Each screen name is separated by a >. To retrace your steps, click the desired name.



Figure 2-9. Breadcrumbs



You can also use the browser window **Back** button to return to a previously viewed screen.

2.2.2 Navigation pane

The navigation pane is located on the left side of the ClearDesign window. Presentation is one of the following:

- On the home page—Administration control, whose available selections depend on ClearDesign permissions.
- With an election selected—navigation pane. (See "Views available from the navigation pane" below.)

To resize the navigation pane:

1. Hover over the line separating the navigation pane and the content pane.
2. When the cursor turns into a double-headed arrow, hold down the right mouse button and drag the line to the desired location.

2.2.3 Views available from the navigation pane

Elections do not appear on a newly installed ClearDesign system until you add them. Once you add an election, the views (tabs) described below appear.

When you select an election, the navigation pane replaces the **Administration** control in the navigation pane.

The navigation pane includes the view listed in Table 2-1.

Table 2-1. Views available from the navigation pane

Tab	See
Languages	"Displaying the Languages view" on page 86
Voter Groups	"Displaying the Voter Groups view" on page 100
District Categories	"Displaying the District Categories view" on page 104
Precincts	"Displaying the Precincts view" on page 109
Contests	"Displaying a Contests view" on page 119
Headers	"Displaying the Headers view" on page 138
Ballot Sets	"Displaying the Ballot Sets view" on page 178
Vote Center Categories	"Displaying the Vote Center Categories view" on page 152
Images	"Displaying the images view" on page 149
Fonts	"Displaying the Fonts view" on page 46

Table 2-1. Views available from the navigation pane (continued)

Tab	See
Logs	"Viewing a log for an individual election" on page 251

2.3 The content pane

The content pane appears on the right side of the ClearDesign window. Depending on the current context, the content pane contains one of the following views:

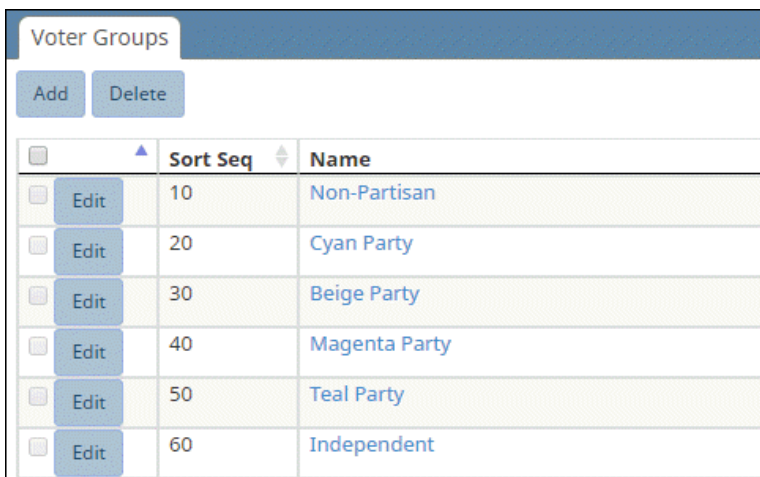
- List—For selecting the entity to work on. The ClearDesign election interface appears in the content pane and consists of a series of tabbed pages. Each page allows you to configure a given aspect of the election.
- Detail—For viewing and possibly modifying the attributes of the selected entity.

2.3.1 List view

The navigation pane provides access to list views. Each list view presents all instances of a type of entity in a tabular format. The table is searchable and sortable.

You add, edit, or delete entities in a list view if you have the appropriate permissions. To edit an entity, click the corresponding row.

Figure 2-10 shows an example of a list view for voter groups.



Voter Groups		
Add Delete		
☐	Sort Seq	Name
☐ Edit	10	Non-Partisan
☐ Edit	20	Cyan Party
☐ Edit	30	Beige Party
☐ Edit	40	Magenta Party
☐ Edit	50	Teal Party
☐ Edit	60	Independent

Figure 2-10. Example of a list view

2.3.2 Detail view (Info tab)

When you click a linked entity in a list view, the detailed Info view for that entity appears in the content pane. You can edit the attributes of the entity from the Info view if you have the appropriate permissions.

Figure 2-11 shows an example of the Info tab for a header with the name VIEW BOTH SIDES. The Info tab shown in this example appears when you double-click the header VOTE BOTH SIDES on the Headers tab.

The screenshot displays the 'Info' tab for a header named 'VOTE BOTH SIDES'. The interface includes tabs for 'Info', 'Card Style Headers', 'Card Styles', and 'Logs'. An 'Edit' button is visible. The 'Basic' section contains fields for Name, Short Name, Import ID, Last Edit By, Header Type, Sort Seq, Abbreviation, Export ID, Last Edit Time, Voter Group, and Ballot Set. The 'Ballot Text' section shows a preview of the header text 'VOTE BOTH SIDES' in English. The 'Layout' section contains settings for Start Column, Placement, Num Columns, Default Style, Font Name, Size, Justify, Option, Background Color, Text Color, Border, Margin, and Padding.

Basic	
Name	VOTE BOTH SIDES
Short Name	VOTE BOTH SIDES
Import ID	
Last Edit By	admin@Ben
Header Type	Card Footer
Sort Seq	2
Abbreviation	VSIDES
Export ID	
Last Edit Time	2016-07-05 18:53:14
Voter Group	Non-Partisan
Ballot Set	All

Ballot Text

English Spanish Chinese Korean Vietnamese

VOTE BOTH SIDES

Layout	
Start Column	0
Placement	Each Side
Num Columns	4
Default Style	
Font Name	
Size	
Justify	Inherit
Option	Inherit
Background Color	
Text Color	
Border	Top Left Bottom Right Color
Margin	Top Left Bottom Right Color
Padding	Top Left Bottom Right

Figure 2-11. Example of a detail view (Info tab)

2.4 The Home page

Figure 2-12 shows an example of the Home page when **Elections** is selected in the Administration menu in the navigation pane on the left. In this figure, numbered labels identify several components of the home page.

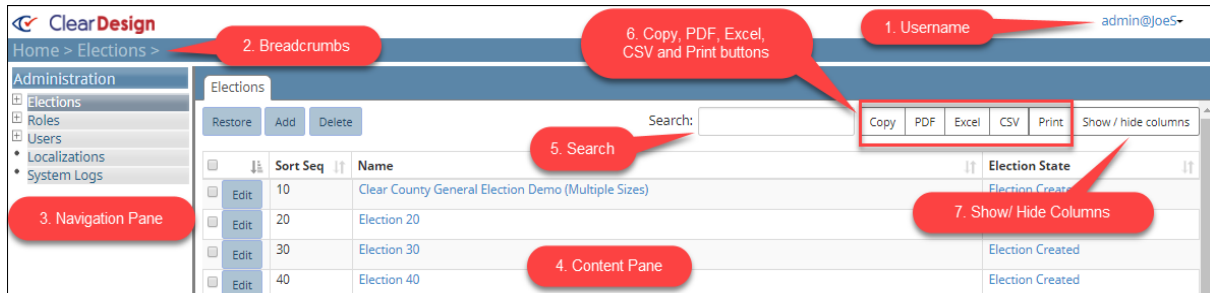


Figure 2-12. ClearDesign Home page

Table 2-2 describes the components of the Home page. The Label column in this table refers to Figure 2-12.

Table 2-2. Components of the Home page

Label	Component	Description
1	User name	Click the user name to select the following: • Change password (See page 26) • Generate Password Recovery File (See page 27) • Logout (page 28) • About this software The About this software selection displays the About screen. This screen displays the current version of the software and lists the currently installed Clear Ballot files and system files. You can print or copy these file lists. You can also export these file lists to a PDF, Excel, or CSV file.
3	Breadcrumbs	This breadcrumbs shows your current location and the path of screens to your current location. Each screen in the path is separated by the > character. Click a screen name to return to any previous screen.

Table 2-2. Components of the Home page (continued)

Label	Component	Description
4	Navigation pane	After you log on, the Administration menu appears in the navigation pane. The other selections that you see depend on the permissions associated with the role assigned to your username. If you are a ballot designer and not an administrator, you may not see the non-election settings on the Administration menu. If you are an administrator, see the <i>ClearDesign Administration Guide</i> for details about the non-election setting available from the Administration menu.
5	Content pane	After you log in, the Elections view appears by default. This tab is the starting point for selecting an individual election to view and changes its settings. See "Elections view" on page 76
6	Copy, PDF, Excel, CSV, and Print buttons	The following buttons appear on ClearDesign screens containing tabular data: • Click Copy to write the contents of the current tab to the Windows clipboard. You can then paste the data from the clipboard to an application where you can edit and format it. • Click PDF, Excel, and CSV to save the contents of the current tab to the respective file formats in your default Downloads folder. • Click Print to send the contents of the current tab to the default printer or any printer available from your computer through the Print dialog.

2.5 Working with entities

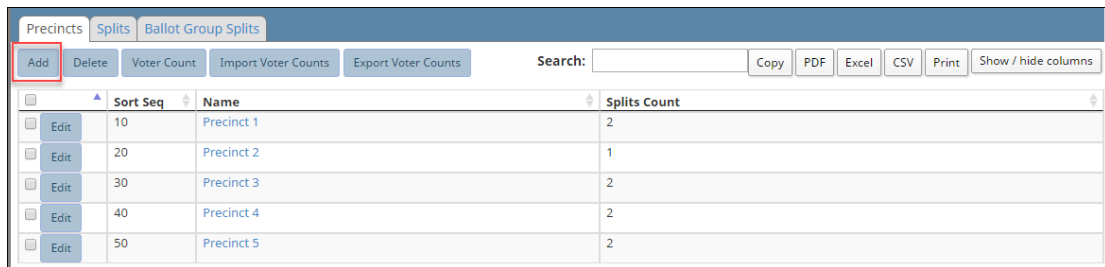
Individual entities include named contests, candidates, districts, and so on. Although these entities serve different purposes, you work with them in similar ways.

2.5.1 Adding entities

To add an entity:

1. Navigate to the tab for the type of entity that you want to add.

The example in Figure 2-13 shows the **Precincts** tab.

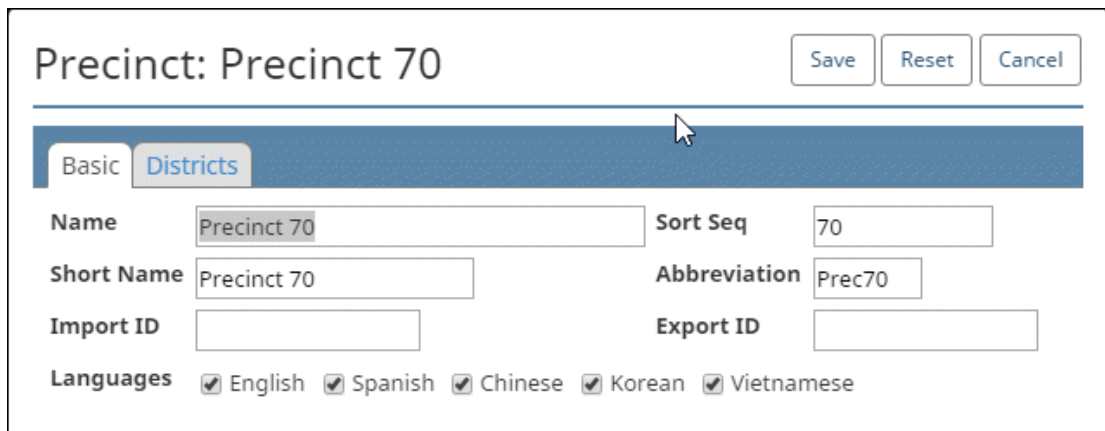


Precincts			
Add Delete Voter Count Import Voter Counts Export Voter Counts			
Search:			
Copy PDF Excel CSV Print Show / hide columns			
	Sort Seq	Name	Splits Count
☐ Edit	10	Precinct 1	2
☐ Edit	20	Precinct 2	1
☐ Edit	30	Precinct 3	2
☐ Edit	40	Precinct 4	2
☐ Edit	50	Precinct 5	2

Figure 2-13. Add button on the Precincts tab

2. Click **Add** to open the editor for that entity.

The example in Figure 2-14 shows the window for adding a precinct.



Precinct: Precinct 70

[Save](#)
[Reset](#)
[Cancel](#)

[Basic](#)
[Districts](#)

Name

Sort Seq

Short Name

Abbreviation

Import ID

Export ID

Languages
☒ English
 ☒ Spanish
 ☒ Chinese
 ☒ Korean
 ☒ Vietnamese

Figure 2-14. Example: adding an precinct

3. Fill in the fields and click **Save**.

The specific fields vary depending on the type of entity.

2.5.2 Common attributes of entities

Entity definitions in ClearDesign use a common set of attributes. The values of the common attributes are user-defined fields for each instance of an entity. Table 2-3 lists and defines the common attributes of entities.

Table 2-3. Common attributes of entities

Attribute	Description	Default
Name	Full user-defined name used across ClearDesign and ClearCount. A Name can contain only the following characters: a through z, A through Z, 0 through 9, hyphen (-), under bar (_), comma (,), asterisk (*), and space (). If you enter any other characters in a Name, ClearDesign converts them to spaces. ClearDesign provides a default consisting of the model name, followed by a number, in increments of 10. Example: Election 10, Election 20, Election 30, and so on. Maximum characters: 60 for entities other than the Name of an election. For the Name of an election, use a maximum of 38 characters, including spaces, to ensure that ClearCast and ClearCount can import the BDF or BDFx file.	<i>ModelName SortSeq</i>
Short Name	Concise name used across ClearDesign and ClearCount, primarily in reports. Maximum characters: 20	Up to the first 20 characters of Name .
Abbreviation	Very short name used across ClearDesign and ClearCount, primarily for voter groups. Maximum characters: 6	Up to the first 6 characters of Name .
Sort Seq	Sorting index. ClearDesign provides default values in increments of 10. Can be user-defined but must be numeric.	Numeric portion of the default value of Name . Usually a multiple of 10.
Import ID	Used when importing or exporting most values in ClearDesign. Example: When handling voter registration counts or ballot definition files, ClearCount refers to the Import ID.	Blank

Table 2-3. Common attributes of entities (continued)

Attribute	Description	Default
Export ID	Optionally, used for recognizing entities, such as contests, candidates, precincts, that are defined by an external system, such as a statewide reporting system. The Export ID is useful when the voter registration systems of counties are separate from the statewide reporting system. The Export ID is included in the ClearCount XML Results file.	Blank

2.5.3 Selecting multiple options for an entity

Some items support multiple selections. For example, a vote center can include multiple precincts, a district, multiple splits.

To select multiple options for an entity:

1. Check the first of the consecutive options.
2. While holding down the **Shift** key, check the last of the consecutive options.
All options in the series are now checked.
3. (Optional) Uncheck any of the checked items.

2.5.4 Setting sort sequences for items

An item's sort sequence (**Sort Seq**) controls the order in which it appears in a list of items. By default, ClearDesign creates sequential sort sequence values starting with 10 in increments of 10 for a given list of items. However, you can change any item's **Sort Seq** value to 1 or greater.

Figure 2-15 shows an example of the Languages tab sorted in ascending order according to the values in the **Sort Seq** column. Click the **Sort Seq** column header to toggle between ascending and descending order.



Languages		
Add Delete Export Text Import Text Export Audio Import Audio		
☐	Sort Seq ▲	Name
☐ Edit	10	English
☐ Edit	20	Spanish
☐ Edit	30	Chinese

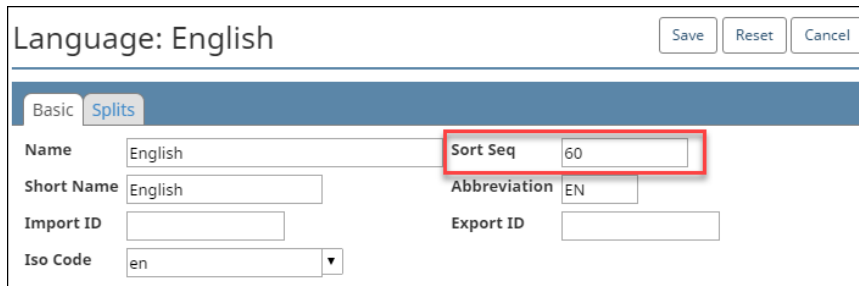
Figure 2-15. Languages tab—sorted in ascending order based of the Sort Seq

To change the **Sort Seq** value of given entity, click the **Edit** button in the corresponding row.

For example, suppose that you want to move English to the bottom of the list show in Figure 2-15. To make this change:

1. Click the **Edit** button in the row corresponding to English as previously shown in Figure 2-15.
The Language: English window appears.
2. In the Language: English window (Figure 2-16), change the **Sort Seq** value so that it becomes the largest value in the list shown in Figure 2-15.

For example, enter 60 for the **Sort Seq** value for English and click the **Save** button.



Language: English

Save Reset Cancel

Basic Splits

Name English Sort Seq 60

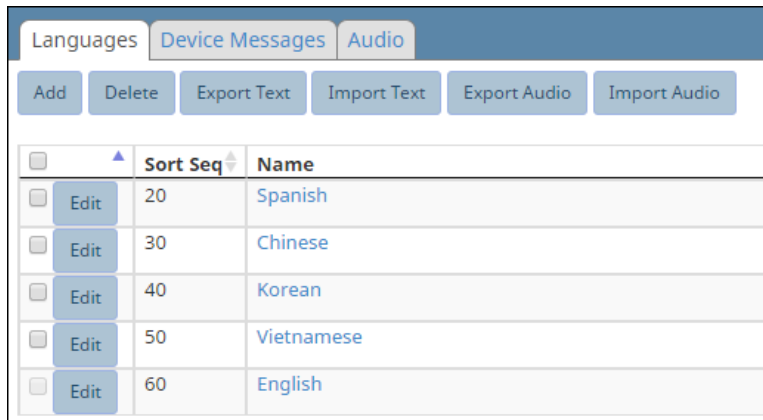
Short Name English Abbreviation EN

Import ID Export ID

Iso Code en

Figure 2-16. Changing the Sort Seq value in the Language: English window

ClearDesign displays a confirmation message and then redisplay the Languages tab. The language English appears at the end of the list.



	Sort Seq	Name
Edit	20	Spanish
Edit	30	Chinese
Edit	40	Korean
Edit	50	Vietnamese
Edit	60	English

Figure 2-17. Language English window—sort sequence changed



You can use the same **Sort Seq** number on more than one entity in a list view. However, Clear Ballot does not recommend this practice. Reusing the same sort sequence number can produce unintended results.

2.5.5 Adding an import ID or export ID to an entity

When you create an election using the **Import File** option, ClearDesign populates the fields with corresponding entries from the imported file data if they exist. ClearDesign generates individual unique ID codes for these imported entries. (You can also manually edit the IDs.)

If you later need to update the election with changed content, ClearDesign matches the import IDs it initially created with the import IDs of the new data to overwrite the old data with the new content changes. Only the specified fields are changed. This is useful, for example, if you need to update only candidate information after most of the election data is established.

Similarly, the export ID can be used if the jurisdiction needs to export the election to a different system. In this case, you can manually enter IDs that the receiving system would be able to recognize and use to map the data between systems.

For information about the import formats, see Appendix A, "Supported data import formats" on page 255.

2.5.6 Deleting entities

To delete an entity:

1. Select the list view for the type of entity you want to delete.
2. Check the entity in the list and then click **Delete**.
3. When the Confirm dialog appears, click **OK**.

If deleting the entity invalidates any part of the election, the Confirm dialog lists the consequences.

2.5.7 Searching in a list view

The **Search** field that appears in list views is useful when the view contains a large amount of text. For example, Figure 2-18 shows a partial Contest tab.



The screenshot shows the 'Contests' tab in the ClearDesign interface. At the top, there are tabs for 'Contests' and 'Candidates'. Below the tabs are buttons for 'Add' and 'Delete'. A search bar is located at the top right of the table, with the word 'Search:' in a red box. To the right of the search bar are buttons for 'Copy', 'PDF', 'Excel', 'CSV', 'Print', and 'Show / hide columns'. The table itself has columns for 'Sort Seq', 'Name', 'Contest Type', 'District', 'Voter Groups', 'Vote For', and '# Cand'. The table contains several rows of contest data, each with an 'Edit' button in the first column.

	Sort Seq	Name	Contest Type	District	Voter Groups	Vote For	# Cand
Edit	1	President of the United States (cross-voting)	Candidate	Jurisdiction Wide	Non-Partisan	1	4
Edit	2	Governor	Candidate	Jurisdiction Wide	Non-Partisan	1	2
Edit	3	U.S. Fed. Senator Vote (Single Vote - Precinct Rotation)	Candidate	Jurisdiction Wide	Non-Partisan	1	5
Edit	5	Representative To The United States Congress	Candidate	Jurisdiction Wide	Non-Partisan	1	3
Edit	8	County Clerk	Candidate	Jurisdiction Wide	Non-Partisan	1	4
Edit	10	Madison City County Judge (Single Precinct and Write-in))	Candidate	Madison City Circuit Judge	Non-Partisan	1	7
Edit	20	County Parks Board (Choose 2 out of 8 n/m)	Candidate	Jurisdiction Wide	Non-Partisan	2	8

Figure 2-18. Contests tab—Search field

To search, start entering a string or word in the Search field. As you type, ClearDesign displays results as you type.

For example, suppose that you enter the string "coun" in the Search field of the Contests tab shown in Figure 2-18 ClearDesign retrieves items containing the words "county" and "council."

If you continue to type the enter word "county," ClearDesign returns only the items containing that word.

2.5.8 Selecting which columns appear in a list view

To set the columns to display:

1. Navigate to the list view where you want to change which columns appear.
2. Click **Show / hide columns**.

ClearDesign displays a drop-down list containing the available columns.

For example, Figure 2-19 shows the drop-down list that appears when you click **Show / hide columns** on the Elections view.

Sort Seq
Name
Short Name
Abbreviation
Import ID
Export ID
Last Edit By
Last Edit Time
Log Count
Election State
Version
Restore to default

Figure 2-19. Drop-down list—Show / hide columns on the Elections view

3. Select or deselect columns from the drop-down list.
To return to the default settings, click **Restore to default**.
4. Click outside the drop-down list to return to the list view.

2.5.9 Sorting a list view by a specific column

By default, a list view is sorted according to the **Sort Seq** column.

To sort a list view by a column other than the **Sort Seq**, click the header cell of the desired column.

For example, see the Election tab in Figure 2-20. This tab is currently sorted by default according to the **Sort Seq** column.

Elections			
Restore	Add	Delete	
Search:		Copy	PDF
		Excel	CSV
		Print	Show / hide columns
	Sort Seq	Name	Election State
☐ Edit	20	City Council Election	Election Created
☐ Edit	10	Clear County General Election	Election Created
☐ Edit	70	Demo Election	Election Created
☐ Edit	40	General Election	Election Created
☐ Edit	60	Presidential Primary	Election Created
☐ Edit	30	School Board Election	Election Created

Figure 2-20. Election tab sorted by the Sort Seq column (default)

To sort the Election tab by the **Name** column, click the header cell.

ClearDesign sorts the column in ascending order (alphabetical order) by **Name** (Figure 2-21).

Elections			
Restore	Add	Delete	
Search:		Copy	PDF
		Excel	CSV
		Print	Show / hide columns
	Sort Seq	Name	Election State
☐ Edit	20	City Council Election	Election Created
☐ Edit	10	Clear County General Election	Election Created
☐ Edit	70	Demo Election	Election Created
☐ Edit	40	General Election	Election Created
☐ Edit	60	Presidential Primary	Election Created
☐ Edit	30	School Board Election	Election Created

Figure 2-21. Election tab sorted by the Name column in ascending order

If you click the **Name** header cell again, ClearDesign sorts the list view in reverse alphabetical order by **Name**.

2.5.10 Saving a view as an Excel file

To save the information on a view (tab) as a comma-separated values (CSV) file with additional header information that can be interpreted in Excel:

1. Navigate to the desired view.
2. In the upper right corner, click **Excel**.
The Save As dialog appears.
3. (Optional) Change the name of the CSV file.
4. Click **Save**.

2.5.11 Saving a tab as a CSV file

To save a tab as CSV file:

1. Navigate to the desired tab.
2. In the upper right corner, click **CSV**.
The **Save As** dialog appears.
3. Navigate to the location where you want to save the file and change the default name of the CSV file.
4. **Save**.

2.5.12 Copying a list view to the Windows clipboard

Copy a list view to the Windows clipboard when you want to paste it into an application to edit and format the contents.

To copy a list view to the clipboard:

1. Go to the list view that you want to copy.
2. Click the **Copy** button in the upper right of the contents pane.
ClearDesign displays a confirmation message.

Figure 2-22 shows a confirmation message after copying the Elections view to the clipboard.

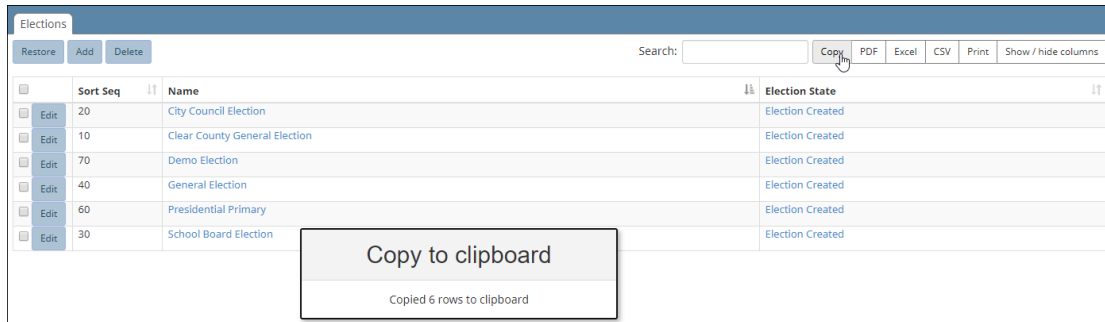


Figure 2-22. Confirmation message after clicking Copy on the Elections view

3. Open the desired application and select the **Paste** command from the application or enter **Ctrl-V**.

Figure 2-23 shows a Microsoft Word file after pasting the contents of the Elections view from the clipboard.

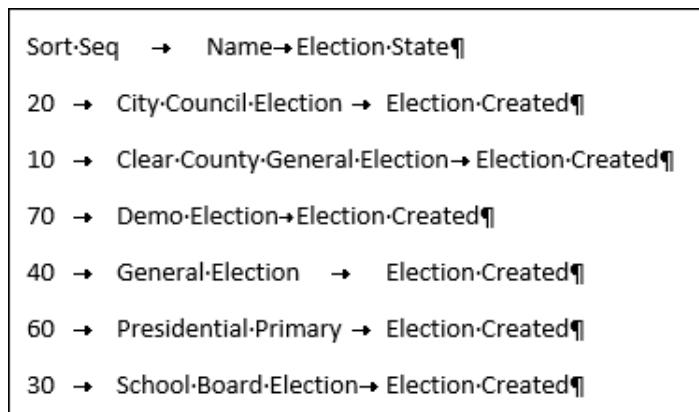


Figure 2-23. Microsoft Word after pasting a list view of an Elections view from the clipboard

4. Edit and format the application file as desired and save it.

2.5.13 Generating a PDF file of a tab

To generate a PDF file that contains the list view of entities:

1. Browse to the view for the entity of interest.
2. Click **PDF**.
The Save As dialog appears.
3. (Optional) Modify the default filename.
4. Click **Save**.

ClearDesign generates the PDF file for the entity following the specified path.

2.5.14 Printing entities

To print an entity:

1. Browse to the entity of interest.
2. Click **Print**.
The Print dialog for the browser window appears.
3. (Optional) Modify properties of the print job.
The output is automatically timestamped.
4. Click **OK**.

Chapter 3. Formatting ballot text

The Ballot Text editor provides conventional tools for formatting ballot text. It is embedded in many ClearDesign dialogs.



Formatting added in the Ballot Text editor overrides any other layout specification, including formatting set by the layout style. See "Formatting ballot text and layout" on page 177.

You can set fonts and formatting in the following three locations:

1. In layout styles
2. In the Layout tab for any applicable entity
3. In the Ballot Text editor

Each location in this list inherits the fonts and formatting from the previous level. The Layout tab inherits the fonts and setting from the layout styles, and the Ballot Text editor inherits the fonts and formatting from the Layout tab.

3.1 Managing fonts

This section describes font management.

If you are required to add a font to an election, Clear Ballot recommends that you do so at an early stage of election development after you have created or imported the election. Any font changes can affect ballot text and layout.

3.1.1 Font support for languages

ClearDesign provides fonts for the following languages:

- Chinese
- English
- Korean
- Spanish
- Vietnamese

For additional fonts to support languages other than those listed above, contact Clear Ballot Technical Support.

ClearVote products support up to 15 languages per election. In addition to the five languages previously listed, the following languages are also supported:

- Danish
- Dutch
- Flemish
- French
- German
- Italian
- Japanese
- Norwegian
- Portuguese
- Swedish

3.1.2 Supported character sets

ClearDesign supports Unicode and the non-Latin character set, but not right-to-left languages.

3.1.3 Default fonts

Default fonts, which cannot be deleted, include:

- Inherit
- Noto Sans
- Noto Serif
- Noto Mono

The Noto fonts support Latin character-set languages, Russian, and Vietnamese.

3.1.4 Installed font files

The following fonts are installed with ClearDesign:

- Noto-Sans-Ext.ttf supports the languages listed in Table 3-1.
- NotoSansCJKtc.ttf—Provides characters for the following languages:
 - Chinese
 - Japanese
 - Korean

Table 3-1. Fonts in Noto-Sans-Ext.ttf

Language	Fonts
Arabic	NotoKufiArabic, NotoNaskhArabic, NotoNastaliqUrdu
Armenian	NotoSansArmenian
Bengali	NotoSansBengali

Table 3-1. Fonts in Noto-Sans-Ext.ttf (continued)

Language	Fonts
Gujarati	NotoSansGujarati
Hindi	NotoSansDevanagari
Persian	NotoKufiArabic, NotoNaskhArabic, NotoNastaliqUrdu
Punjabi	NotoSansGurmukhi
Urdu	NotoNastaliqUrdu
Tagalog	NotoSansTagalog
Telugu	NotoSansTelugu

3.1.5 Displaying the Fonts view

To display the Fonts view, select one of these options:

- From the Election menu, click **Fonts**.
- From the Info View of an election, click the Fonts tab.

ClearDesign displays the Fonts view (Figure 3-1 below).

Fonts	
Add Delete Search: Copy PDF Excel CSV Print Show / hide columns	
☐ Sort Seq	Name
☐ 10	Inherit
☐ 20	Noto Sans
☐ 40	Noto Serif
☐ 60	Noto Mono

Figure 3-1. Fonts view (default columns shown)

Default fonts

The Fonts view displays the default fonts and any user-added fonts.

The default fonts, which you cannot delete, include:

- Inherit
- Noto Sans
- Noto Serif
- Noto Mono

The Noto fonts support Latin character-set languages, Russian, and Vietnamese.

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, and Code.

Action buttons available from the Fonts view

Table 3-2 lists the actions buttons available from the Fonts view.

Table 3-2. Actions buttons available from the Fonts view

Button	Description
Add	See "Adding a font to an election" below.
Delete	To delete a user-added font: 1. Select the check box corresponding to the desired font. 2. Click Delete.

3.1.6 Adding a font to an election

To add a font to an election:

1. From the navigation pane, choose **Fonts**.
ClearDesign displays the Fonts view.
2. Click **Add**.

ClearDesign displays the Font dialog.

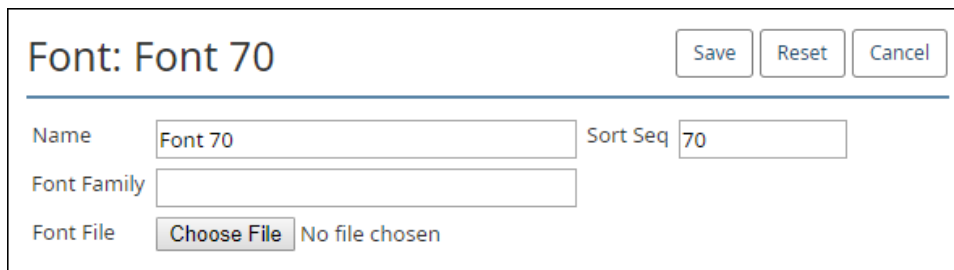


Figure 3-2. Font dialog

3. In **Name**, enter the user-defined name.

The font **Name** can contain only the characters a-z, A-Z, 0-9, -, or space.

If you leave the **Name** or **Font Family** fields blank, ClearDesign supplies the filename of the font that you selected when using the **Choose File** button.



Once saved, the **Name** cannot be changed.

4. In **Font Family**, supply a name.

Use the **Font Family** field to define a hierarchical list of fonts from left to right. If the first font is unavailable, the browser tries the next font.

The following example shows a list for the **Font Family** field.

Example: "notosans, notosans-ext, notosans-ckj, sans-serif"

In this example, the browser does the following:

1. The browser tries to render the first font, notosans.
2. If notosans is unavailable, the browser tries to render the next font, notosans-ext.
3. The browser moves through the font list from left to right until it locates a font that can render the desired character.

If none of the fonts listed can render a particular character, the default Windows black border characters appear instead. In this situation, use an alternate font. Because ClearDesign's installed fonts support all necessary languages, you can use them in this situation.

For a list of fonts installed with ClearDesign, see "Managing fonts" on page 44.

5. In **Sort Seq**, enter the sorting index.
6. For **Font File**, click **Choose File** to navigate to and select a font file.
7. Click **Save**.

ClearDesign installs the font, and the user-defined name appears in the **Font Name** list in the Ballot Text editor across the election.

3.1.7 Deleting fonts from elections

To delete a user-installed font from an election:

1. From the **Fonts** view, check the fonts to delete.
2. Click **Delete**.
3. When the confirmation message appears, click **OK**.

The confirmation message indicates that you have removed all instances of the fonts from the election.

3.2 Ballot Text editor

The Ballot Text editor is accessible through any dialog that controls textual elements that appear on the ballot, such as contests, candidates, voter groups, and headers. The editor provides tools for formatting the appearance of ballot text. The editor contains the following:

- A toolbar where you can set the size, shape, and layout of text and images on the ballot
- Tabs that allow you to specify that formatting for each language in an election

The example in Figure 3-3 shows tabs for English and Spanish.

When you add a new language, the tab displays the content on the English tab. You can modify this content as desired.

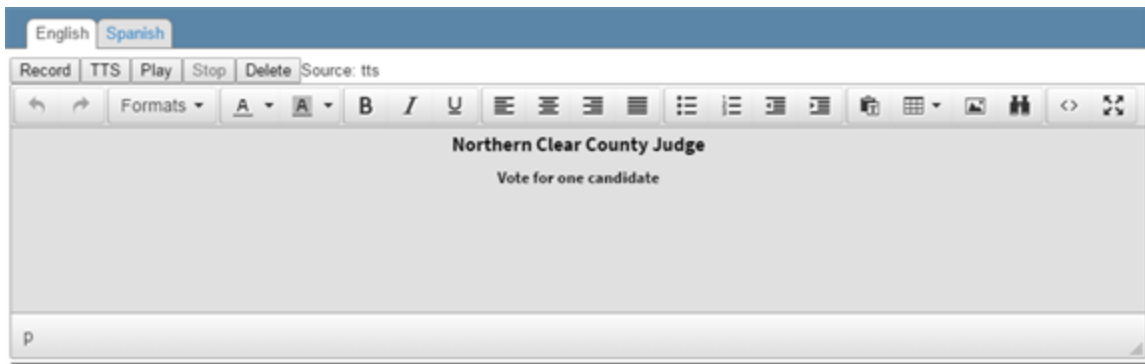


Figure 3-3. Ballot Text editor toolbar

Expanding the Ballot Text editor to full-screen mode

To expand the Ballot Text editor to full-screen mode, click the **Fullscreen** button



To return to the default size, click **Fullscreen** again.

3.3 Finding or replacing text

To locate a word or phrase and optionally replace it:

1. Access the Ballot Text editor.
2. Click **Find and replace** .

The Find and replace dialog appears.

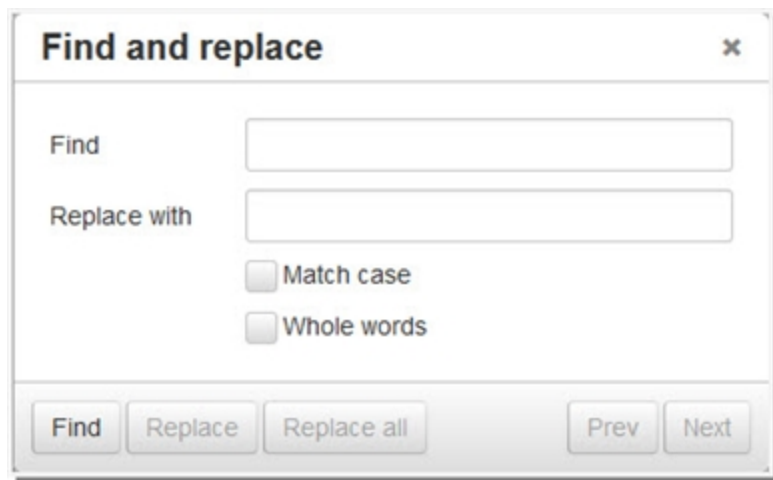


Figure 3-4. Find and replace dialog

3. In **Find**, enter the number, term, or phrase to search for.
4. (Optional) In **Replace with**, enter the replacement text.
5. (Optional) Check **Match case** to search for uppercase and lowercase characters as entered.
6. (Optional) Check **Whole words** to search for the sequence of characters as entered.
7. Click **Find**.

ClearDesign highlights all instances of the text that it finds.

8. Click **Replace** or **Replace All** to replace the next instance or all instances of the text.
9. Dismiss the dialog to return to the Ballot Text editor.

3.4 Undoing or redoing changes

To undo your last change in the Ballot Text editor, click **Undo** . To redo your last change, click **Redo** .

3.5 Viewing and editing ballot source code

If you are familiar with HTML, you can edit the source code directly.

To view and edit the HTML source code for the content in the Ballot Text editor:

1. Click **Source code** .

The Source code dialog appears.

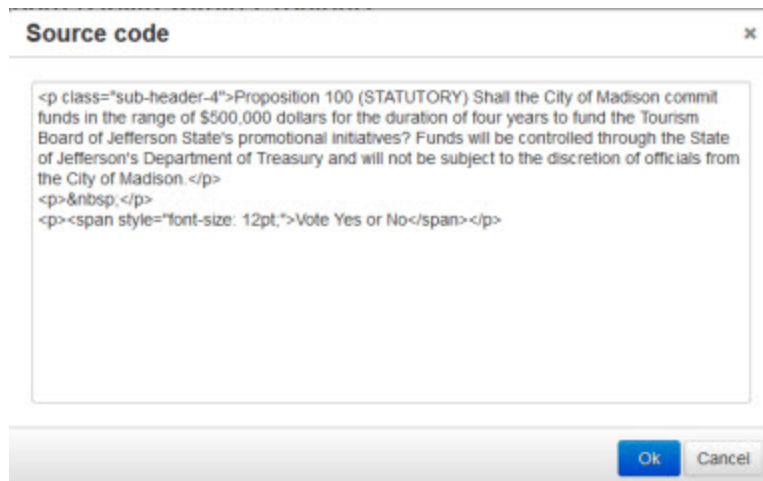


Figure 3-5. Source code dialog

2. (Optional) Edit the source code.

You can use only the following HTML tags:

- `<p>`
- `<strong>`
- `<br>`

3. Click **OK** to accept any changes and return to the Ballot Text editor.
4. To return to the Ballot Text editor without making any changes, click **Cancel**.
5. Click **OK** to accept any changes and return to the Ballot Text editor.
6. To return to the Ballot Text editor without making any changes, click **Cancel**.

3.6 Formatting text in the Ballot Text editor

This section describes how to format text and paragraphs in the Ballot Text editor.



Although you can apply in-line formatting to text and paragraphs, Clear Ballot recommends creating a new style and specifying the desired formatting for that style. You can then ensure consistency in formatting by applying the style to additional text and paragraphs as needed. See "Setting up layout styles" on page 206.

3.6.1 Formats menu

The Formats menu (Figure 3-6) in the toolbar of the Ballot text editor contains options that determine how text appears. To use the Formats menu, select (highlight) the desired text or paragraph and select one of the options listed in Table 3-3.

If you know HTML and CSS, you are not limited to the options available from the Formats menu. You can edit the markup for the HTML and CSS style specifiers directly by clicking the <> selection for the tool bar.

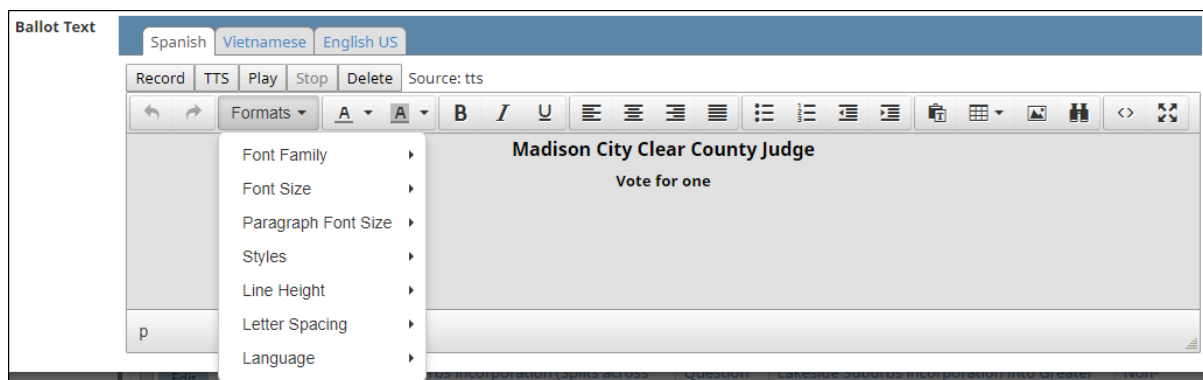


Figure 3-6. Formats menu

Table 3-3. Options available from the Formats menu

Option	Description
Font Family	Applies a font family to the selected text. The default font family is Noto Sans, a cross-platform sans-serif font. You can also load additional fonts. See "Adding a font to an election" on page 47.
Font Size	Applies a font size to the selected text. The Font Size option provides a range from 36 points to 6 points.

Table 3-3. Options available from the Formats menu (continued)

Option	Description
Paragraph Font Size	Applies a font size to the current paragraph. The Paragraph Font Size option provides a range from 36 points to 6 points.
Styles	Applies a style to the current paragraph. In ClearDesign, styles are called <i>subheaders</i>. Example: You can define a subheader that applies both a specified font and font size to the selected paragraph. To define and edit subheaders (styles), see "Setting up layout styles" on page 206
Line Height	Controls the amount of space between lines of text in the current paragraph. The Line Height option provides a range from 2.0 line to 0.5 lines.
Letter Spacing	Controls the amount of space between letters in the currently selected text. The Letter Spacing option provides the following selections: Very Compressed, Compressed, Normal, Expanded, and Very Expanded.
Language	Specifies the language for the currently selected text. This option is useful when using text-to-speech.

3.6.2 Formatting options in the toolbar of the Ballot Text editor

The toolbar of the Ballot text editor provides the formatting options listed in Table 3-4.

Table 3-4. Ballot Text editor: toolbar formatting options

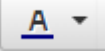
Icon	Description
	Change the color of the currently selected text.
	Change the background color for the currently selected text.
	Make the currently selected text bold.
	Italicize the currently selected text.
	Underline the currently selected text.

Table 3-4. Ballot Text editor: toolbar formatting options (continued)

Icon	Description
	Left-align the current paragraph.
	Center the current paragraph.
	Right-align the current paragraph.
	Justify the current paragraph.
	Format the currently selected paragraphs as a bulleted list.
	Format the currently selected paragraphs as a numbered list.
	Decrease the indentation of the currently selected paragraphs.
	Increase the indentation of the currently selected paragraphs.
	Toggle between pasting as plain text and pasting as formatted text. The DesignServer is installed with the default functionality to paste as plain text. If one ClearDesign user changes this option for pasted text, the change persists for all other ClearDesign users that access the same Design server. To avoid unwanted formatting, Clear Ballot recommends pasting as plain text and then applying desired formatting in the Ballot Text editor.

3.7 Formatting tables in the Ballot Text editor

You can add and format tables in the Ballot Text editor. Tables provide an invisible grid that makes it easy to position ballot text and images with precision.

3.7.1 Inserting tables

To insert a table:

1. In the Ballot Text editor, position the cursor in the location where you want the table to appear.
2. Click the Table icon and select **Insert Table**.

The table-size grid appears.

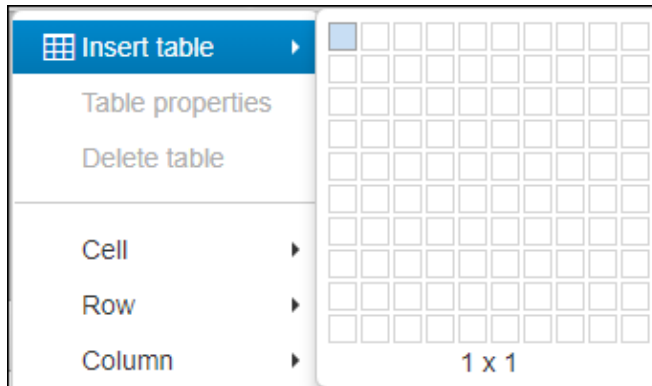


Figure 3-7. Ballot Text editor, table sizing grid

3. In the grid, highlight the required columns and rows.

Used the table formatting options describes in the remainder for this topic to format the table according to your requirements.

3.7.2 Setting table properties

Table properties control attributes, such as measurements and colors.

To set table properties:

1. In the Ballot Text editor, click to select the table that you want to format.
2. Click the Table icon and select **Table properties**.

ClearDesign displays the Table properties dialog (Figure 3-8). The General tab is selected.

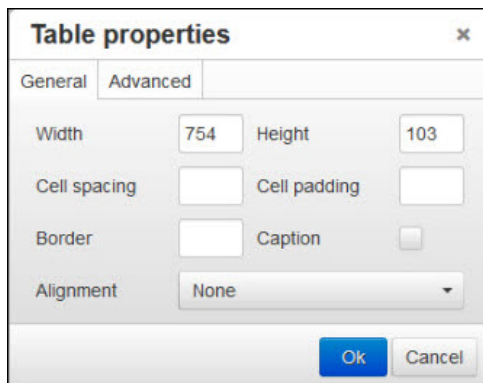


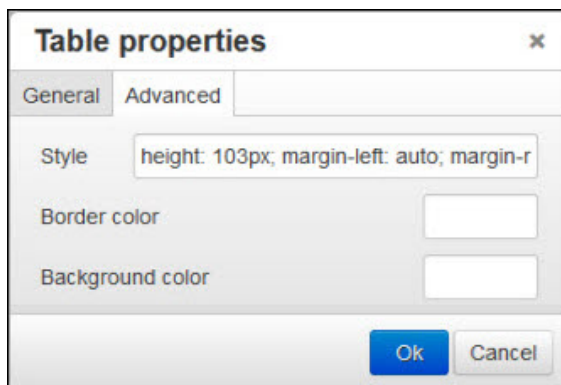
Figure 3-8. Table properties dialog: General tab

3. From the **General** tab, set any of the properties listed in Table 3-5.

Table 3-5. Table Properties: General

Property	Description
Width	Overall table width, which can force scaling of columns.
Cell spacing	The width of individual table cells (if scaling does not occur).
Border	The width of the overall table and individual cell borders.
Alignment	Table placement on the ballot: None, Left, Center, or Right.
Height	Overall table height, which can force the scaling of columns.
Cell padding	Amount of empty space between the content in each cell and its borders.
Caption	Provides a text box for a caption immediately above the table.

4. Click the Advanced tab (Figure 3-9).

**Figure 3-9. Table properties dialog: Advanced tab**

5. Set any combination of the Advanced properties listed in Table 3-6.

Table 3-6. Table properties: Advanced

Property	Description
Style	Embedded table-level style sheet. If you know HTML, you can modify this style sheet.
Border color	A valid HTML color name or hex value to apply to the background of all cells

6. Click **OK**.

3.7.3 Resizing tables manually

To resize a table manually:

1. In the Ballot Text editor, click the table to select it.

Small squares appear around the perimeter of the table.

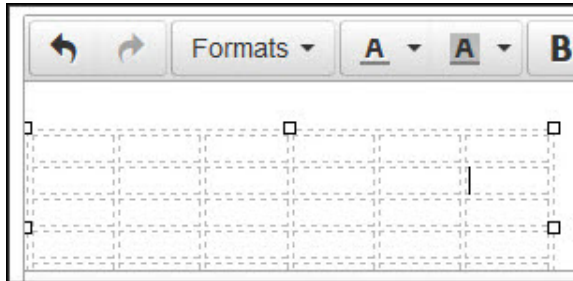


Figure 3-10. Selecting a table to resize it

2. Hover over one of these squares until the cursor turns into a double-headed arrow.
3. Click and drag the table to the desired size.
4. Release the mouse button.

3.7.4 Deleting a table

To delete a table:

1. In the Ballot Text editor, click to select the desired table.
2. Click the Table icon and select **Delete table**.

3.7.5 Setting table cell properties

To set the properties of a selected table cell:

1. In the Ballot Text editor, select the table cell or group of cells that you want to modify.
2. Click the **Table** icon and select **Cell > Cell Properties**.

ClearDesign displays the Cell properties dialog (3.7.5). The General tab is selected.

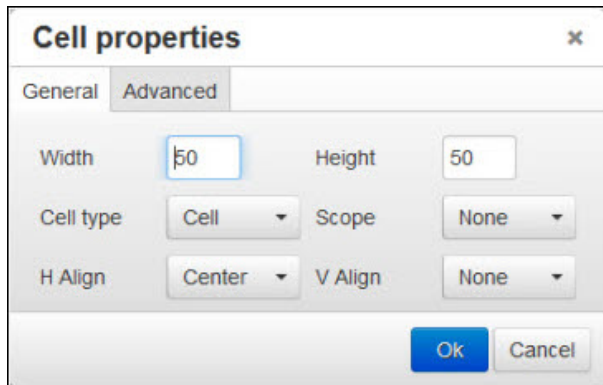


Figure 3-11. Cell properties dialog, General tab

3. On the **General** tab, set any of the desired properties listed in Table 3-7.

Table 3-7. Cell properties: General tab

Property	Description
Width	The width of the cell, including units. Enter a value such as 15% or 50px.
Cell type	Select: Cell or Header Cell
H Align	The horizontal alignment in the cell. Select: None, Left, Center, or Right.
Height	The height of the cell, including units.
Scope	Select: None, Row, Column, Row Group, or Column Group
V Align	The vertical alignment in the cell. Select:

4. Click the **Advanced** tab.

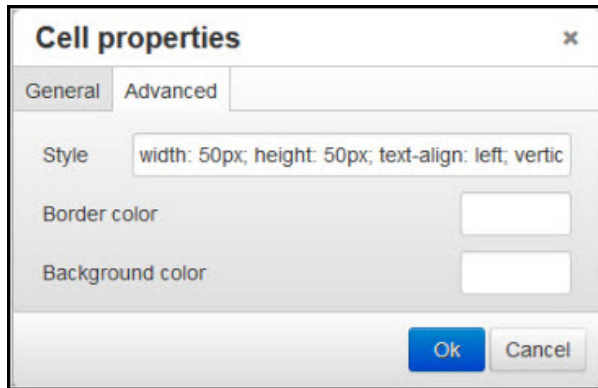


Figure 3-12. Cell Properties dialog: Advanced tab

- On the Advanced tab, set any of the desired properties listed in Table 3-8.

Table 3-8. Cell properties: Advanced tab

Property	Description
Style	The embedded table style sheet. If you know HTML, modify this style sheet to meet your formatting requirements
Border color	A valid HTML color name or hex value to apply to all borders.
Background color	A valid HTML color name or hex value to apply to the background.

- Click **OK**.

3.7.6 Merging table cells

To merge table cells:

- In the Ballot Text editor, select the cells that you want to merge.
- Click the Table icon and select **Cell > Merge cells**.
ClearDesign merges the selected cells.
- Click **Save**.

3.7.7 Splitting table cells

To split a table cell in the Ballot Text editor:

1. Select the cell to split.
2. Click the **Table** menu and choose **Cell > Split cell**.

ClearDesign splits the selected cell.

3.7.8 Editing table row properties

To edit the properties of a selected row:

1. In the Ballot Text editor, select the desired table row.
2. Click the Table icon and select **Row > Row properties**.

The **Row properties** dialog appears. The General tab appears selected.

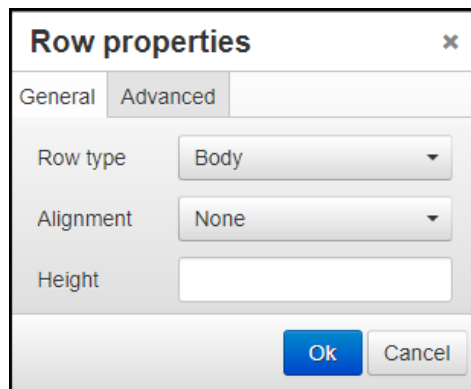


Figure 3-13. Row properties dialog: General tab

3. Set any desired properties listed in Table 3-9.

Table 3-9. Row properties: General

Property	Description
Row type	Select one of the following: Header, Body, or Footer
Alignment	Select one of the following: None, Left, Center, or Right.
Height	Height of the row in pixels. Example: 75px

4. Click the **Advanced** tab.

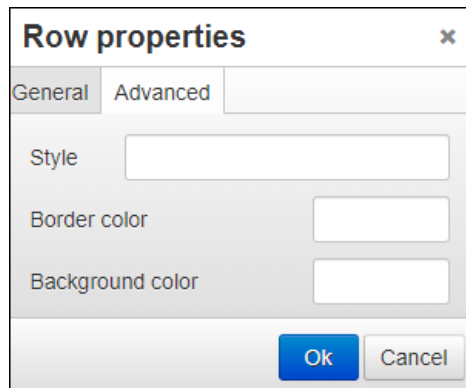


Figure 3-14. Row properties: Advanced tab

5. Set any combination of the following:
 - **Style**—Summarizes the existing row styles.
 - **Border color**—Valid HTML color name for the border around the row.
 - **Background color**—Valid HTML color name for the background of the row, expressed by name.

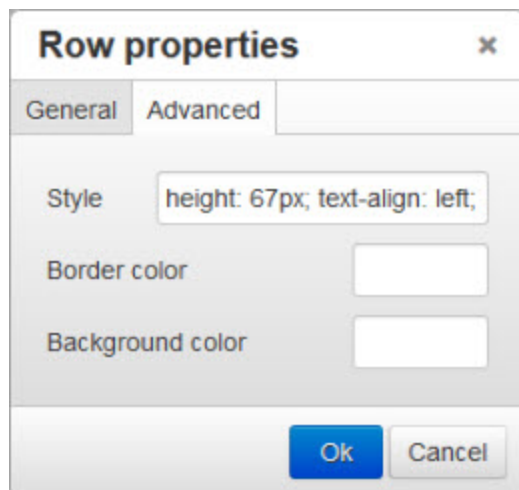


Figure 3-15. Row properties dialog: Advanced tab

6. Click **OK**.

3.7.9 Adding, deleting, or moving table rows

To add, delete, or move a table row in the Ballot Text editor:

1. Select the row that you want to modify.
2. Click the Table icon and hover over **Row**.
3. Select one of the options listed in "Row properties" below.

Table 3-10. Row properties

Property	Description
Insert row before	Place a new empty row above the selected row.
Insert row after	Places a new empty row below the selected row.
Delete row	Deletes this row.
Cut row	Cuts the row so that you can paste it elsewhere.
Copy row	Copy the row so that you can paste it elsewhere.
Paste row before	Paste the cut or copied row above the selected row.
Paste row after	Paste the cut or copied row below the selected row.

3.7.10 Adding or deleting columns

To add or delete a column:

1. In the Ballot Text editor, select the column you want to modify.
2. From the **Table** drop-down menu, hover over **Column**.
3. Select one of the following menu options:
 - **Insert Column Before**—Places a new empty column to the left of the selected column.
 - **Insert Column After**—Places a new empty column to the right of the selected column.
 - **Delete Column**—Deletes the selected column.

3.8 Adding images in the Ballot Text editor

You can insert images (such as logos, signatures, or example vote targets) in the Ballot Text editor.

For information about uploading images to ClearDesign, see "Managing images" on page 147.

3.8.1 Inserting images

To insert an image into a header:

1. From the navigation pane, choose **Headers**.
2. In **Headers** tab, in the row representing the header you want to modify, click **Edit**. The **Header** editor opens.
3. In the Ballot Text editor, position the cursor where you want the image to appear.
4. Click the **Image Manager** icon .

The Insert/Add Image dialog appears.

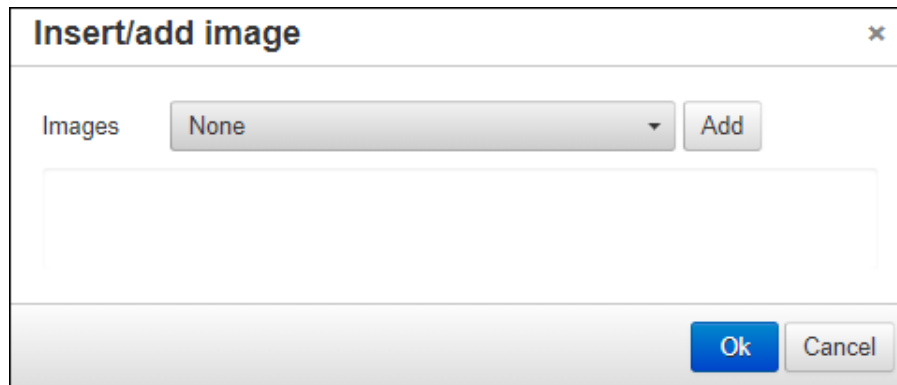


Figure 3-16. Insert/Add Image dialog

Do one of the following:

- To insert a image previously uploaded to ClearDesign, make a selection from the **Images** drop-down list.
- To upload an image to insert, click **Add**, then browse to and select the image. When the image is available, a status message appears in the Insert/Add image dialog.

If you try to upload an image that is 100 kB or greater, ClearDesign issues the following warning message (Figure 3-17):

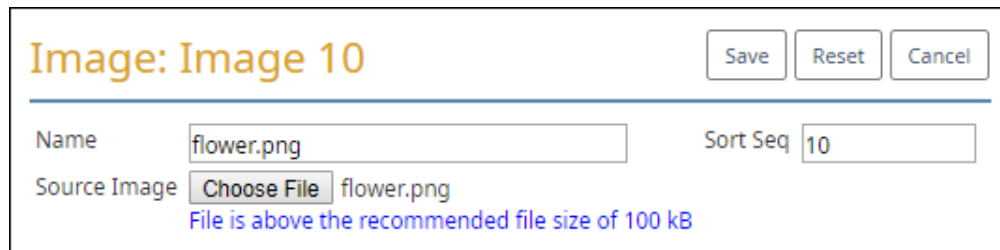


Figure 3-17. Warning message when trying to insert an image that is 100 kB or larger

5. Click **OK**.

The image is inserted at the specified location in the Ballot Text editor.

If you click **OK** and the image is 1048 kB or larger, ClearDesign issues the following error message (Figure 3-18):

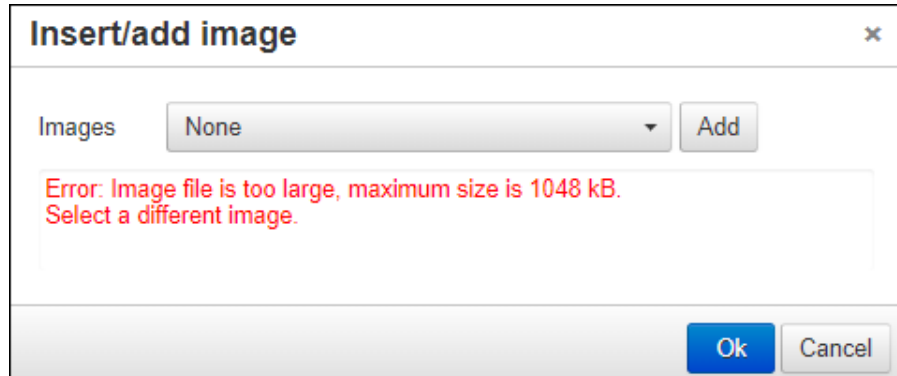


Figure 3-18. Error message when trying to insert an image larger than 1048 kB

6. (Optional) After the image appears in the ballot text editor, move or resize it as needed.
7. Click **Save**.

3.8.2 Resizing images

To resize an image in a header:

1. In the Ballot Text editor, click the image to select it. A frame appears around the edges of the image.



2. Hover your cursor over the image's frame until the square beneath it turns black.



3. Holding the left mouse key down and slide the cursor in or out to make the image smaller or larger.
4. Click **Save**.

3.8.3 Moving images

To move an image in a header:

1. In the Ballot Text editor, click the image to select it.
2. Drag the image to the desired location, and then release the mouse button.
3. Click **Save**.

3.8.4 Deleting images

To delete an image from a header:

1. In the Ballot Text editor, click the image to select it and press **Delete**.
2. Click **Save**.



This procedure deletes the image from the ballot, but it does not remove it from ClearDesign.

3.9 Using Macros

Macros are placeholders for variable data that appear in headers.

You can also use macros in device messages. See "Using macros in device messages" on page 91.

Example of using a macro a header

For example, suppose that you set up a template for creating new elections. If you insert a macro representing the election name in various headers in the template, you can avoid manually updating the election name in every location each time you create a new election. Instead, the election-name macro picks up value of the **Name** field specified in the Election dialog.

How macros appear in the Ballot Text editor of a header

Figure 3-19 on the next page shows an example of how macros appear in the Ballot Text editor of a header. This header contains two macros:

- **~{card.voterGroup.name}** is a placeholder for the name of the voter group (political party) associated with the card.
- **~{split.precinct.name}** is a placeholder for the name of the precinct associated with the split.

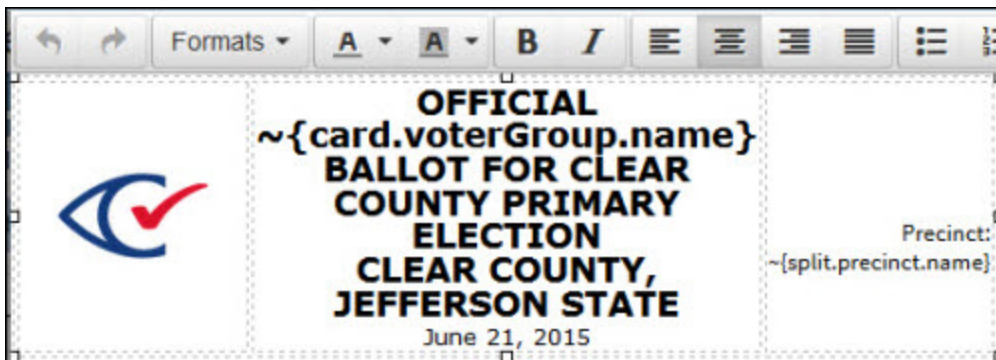


Figure 3-19. Example: macros in a header

Viewing macros when previewing and printing cards and ballots

When you preview or print the cards and ballots, the actual names of the voter group and precinct appear instead of the macros.



When you click **Layout Preview** from a Card Style and Ballot Style view, ClearDesign may not display all values for the macros in the associated preview. Therefore, Clear Ballot recommends previewing and proofing macros by using the Ballot view and Card view tabs.

3.9.1 Adding macros to headers

To add a macro to a header:

1. From the **Headers** view of the election, locate the desired header.
2. Click the **Edit** button for the header.
The Header dialog appears.
3. In the Ballot Text editor section of the Header dialog, click the location where you want to add the macro.
4. Type the macro using the syntax `<tilde>{MacroName}`.
ClearDesign allocates space for the macro based on its name.
5. Click **Save**.

3.9.2 Previewing macros

Open the associated cards in the Layout Preview page to review macro substitutions. You can then fix any macros that appear as undefined. You must lay out cards before ClearDesign will process macros. You cannot view macros if you have only generated ballots.

3.9.3 Macro and alias definitions

This topic lists macros according to categories based on ClearDesign entities and their attributes.

The information in this topic assumes an understanding of entities, the various attributes (fields) of entities, and the relationships between entities. To review this information for a specific entity, read the topic in this *User Guide* that describes how to create and edit a particular entity.

Hierarchy of macro definitions

Macro definitions follow a hierarchy that goes from left to right. Each individual element in the macro hierarchy ends with a period.

The following macro definition is an example:

```
~{split.ballot.ballotStyle.ballotSet.abbreviation}
```

The hierarchy of this macro definition is as follows:

1. This macro is associated with a split (precinct split) entity, which has an associated ballot.
2. The ballot associated with the split has a related ballot style, which is turn, is associated with ballot set.
3. Therefore, this macro is a placeholder for the abbreviation that identifies the ballot set in this hierarchy.

Aliases

Some macros have associated aliases. An *alias* is a shorthand abbreviation for a macro. In the tables of macros in the remainder of this topic, an alias appears indented in the row below its associated macro. Because an alias is shorter than its associated macro, use an alias to save space in the Ballot Text editor.

Ballot macros

```
{ballot}  
{ballot.id}  
{ballot.name}  
{ballot.shortName}  
{ballot.abbreviation}  
{ballot.ballotStyle}  
{ballot.ballotStyle.id}  
{ballot.ballotStyle.sortSeq}  
{ballot.ballotStyle.name}
```

Election macros

{election}
{election.id}
{election.name}
{election.sortSeq}
{election.shortName}
{election.abbreviation}
{election.electionDate}

Ballot group macros

{ballotGroup}
{ballotGroup.id}
{ballotGroup.sortSeq}
{ballotGroup.name}
{allotGroup.shortName}
{ballotGroup.abbreviation}
{ballotGroup.ballotGroupStyle}
{ballotGroup.ballotGroupStyle.id}
{ballotGroup.ballotGroupStyle.sortSeq}
{ballotGroup.ballotGroupStyle.name}
{ballotGroup.ballotGroupStyle.shortName}
{ballotGroup.ballotGroupStyle.abbreviation}

Ballot Group Style macros

{ballotGroupStyle}
{ballotGroupStyle.id}
{ballotGroupStyle.sortSeq}
{ballotGroupStyle.name}
{ballotGroupStyle.shortName}
{ballotGroupStyle.abbreviation}

Ballot style macros

{ballotStyle}
{ballotStyle.id}
{ballotStyle.sortSeq}

Ballot style macros (continued)

{ballotStyle.name}
{ballotStyle.shortName}
{ballotStyle.abbreviation}
{ballotStyle.ballotSet}
{ballotStyle.ballotSet.id}
{ballotStyle.ballotSet.sortSeq}
{ballotStyle.ballotSet.name}
{ballotStyle.ballotSet.shortName}
{ballotStyle.ballotSet.abbreviation}

Ballot set macros

{ballotSet}
{ballotSet.id}
{ballotSet.sortSeq}
{ballotSet.name}
{ballotSet.shortName}
{ballotSet.abbreviation}

Card macros

{card}
{card.id}
{card.name}
{card.VoterGroup}
{card.voterGroup.id}
{card.voterGroup.name}
{card.voterGroup.sortSeq}
{card.voterGroup.shortName}
{card.voterGroup.abbreviation}
{card.cardSequence}

Precinct macros

{precinct}
{precinct.id}
{precinct.name}

Precinct macros (continued)

{precinct.sortSeq}
{precinct.shortName}
{precinct.abbreviation}

Split macros

{split}
{split.id}
{split.name}
{split.sortSeq}
{split.shortName}
{split.abbreviation}
{split.ballotSequence}
{split.precinct}

Alias: {precinct}

{split.precinct.id}
{split.precinct.name}
{split.precinct.sortSeq}
{split.precinct.shortName}
{split.precinct.abbreviation}
{split.ballotGroup}

Alias: {ballotGroup}

{split.ballotGroup.id}
{split.ballotGroup.sortSeq}
{split.ballotGroup.name}
{split.ballotGroup.shortName}
{split.ballotGroup.abbreviation}
{split.ballotGroup.ballotGroupStyle}

Alias: {ballotGroupStyle}

{split.ballotGroup.ballotGroupStyle.id}
{split.ballotGroup.ballotGroupStyle.sortSeq}
{split.ballotGroup.ballotGroupStyle.name}
{split.ballotGroup.ballotGroupStyle.shortName}

Split macros (continued)

{split.ballotGroup.ballotGroupStyle.abbreviation}

{split.ballot}

Alias: {ballot}

{split.ballot.id}

{split.ballot.sortSeq}

{split.ballot.name}

{split.ballot.shortName}

{split.ballot.abbreviation}

{split.ballot.ballotStyle}

Alias: {ballotStyle}

{split.ballot.ballotStyle.id}

{split.ballot.ballotStyle.sortSeq}

{split.ballot.ballotStyle.name}

{split.ballot.ballotStyle.shortName}

{split.ballot.ballotStyle.abbreviation}

{split.ballot.ballotStyle.ballotSet}

Alias: {ballotSet}

{split.ballot.ballotStyle.ballotSet.id}

{split.ballot.ballotStyle.ballotSet.sortSeq}

{split.ballot.ballotStyle.ballotSet.name}

{split.ballot.ballotStyle.ballotSet.shortName}

{split.ballot.ballotStyle.ballotSet.abbreviation}

{split.ballotGroup.ballotGroupStyle.abbreviation}

{split.ballot}

{split.ballot.id}

{split.ballot.sortSeq}

{split.ballot.name}

{split.ballot.shortName}

{split.ballot.abbreviation}

{split.ballot.ballotStyle}

{split.ballot.ballotStyle.id}

{split.ballot.ballotStyle.sortSeq}

Split macros (continued)

`{split.ballot.ballotStyle.name}`
`{split.ballot.ballotStyle.shortName}`
`{split.ballot.ballotStyle.abbreviation}`
`{split.ballot.ballotStyle.ballotSet}`
`{split.ballot.ballotStyle.ballotSet.id}`
`{split.ballot.ballotStyle.ballotSet.sortSeq}`
`{split.ballot.ballotStyle.ballotSet.name}`
`{split.ballot.ballotStyle.ballotSet.shortName}`
`{split.ballot.ballotStyle.ballotSet.abbreviation}`

Split macros containing the district category abbreviation

In the following macros, the data enclosed in [] is the district category abbreviation.

Example: Suppose that split 1 is in the district US Senate 51 and the abbreviation for the US Senate district category is "USSEN". The macro `~{split.districts[USSEN].name}` displays the following:

US Senate 51

`{split.districts[].id}`
`{split.districts[].name}`
`{split.districts[].shortName}`
`{split.districts[].abbreviation}`

3.9.4 Barcode macros

The following formats macros generate barcodes:

`~{code128A(macro_names)}`

`~{code128B(macro_names)}`

`~{code128C(smacro_names)}`

`~{code25(macro_names)}`

In barcode macros, multiple macro names can be included between the parentheses.

Guidelines for using barcode macros

- ClearDesign ignores invalid characters when generating barcodes.
- The Code25, Code128A, Code128B, and Code128C macros extract only numeric values.
- If a barcode value contains an odd number of digits, ClearDesign adds a leading zero.

Example 1

To create a 2 of 5 barcode using the numbers in the Ballot Set ID, enter the following:

```
~{code25(ballotSet.id)}
```

This example contains the following items:

- The ~ { and } delimit the beginning and end of the macro, respectively.
- The string **code25** indicates the barcode format.
- The parentheses following the barcode format enclose the macro data to be encoded in the barcode.

Example 2

Suppose that the precinct abbreviation is 01-234 and the split.ballotSequence is 5. The following macro contains the barcode value 012345.

```
~{code25(precinct.abbreviation.split.ballotSequence)}
```

Font for barcodes

To display data as barcode, use barcode font code128.ttf provided by Clear Ballot. To get this font, go to the Clear Ballot Support Center (<https://clearballot.desk.com/>).

3.9.5 Auxiliary format functionality for macros

An auxiliary format enables you:

- Select and capture only a portion of a string represented by a macro
- Add leading zeroes or spaces to the string represented by a macro

Syntax for auxiliary formats

A macro that uses an auxiliary format has the following syntax:

```
~{macro[auxiliary_format]}
```

The *auxiliary_format* specifies a formula indicating which portion of the macro to capture.

Examples

Suppose that:

- The macro **precinct.name** represents the string '1234-567'.
- The macro **split.name** represents the string 'ABCDEFGHIJK'.

Table 3-11 on the next page lists examples of auxiliary formats that capture parts of the strings represented by these macros or add zeros or spaces to these strings.

Table 3-11. Examples of auxiliary formats

Description	Macro	Values captured
Skip two characters from the left. Capture the third character.	~{precinct.name[2]}	3
	~{split.name[2]}	C
Capture the fifth character from the right.	~{precinct.name[-5]}	4
	~{split.name[-5]}	G
Skip two characters from the left. Capture from the third character to the end of the string.	~{precinct.name[2:]}	34-567
	~{split.name[2:]}	CDEFGHIJK
Count five characters from the right. Capture from that character through the end of the string.	~{precinct.name[-5:]}	4-567
	~{split.name[-5:]}	GHIJK
Skip two characters on the right. Capture from the third character to the sixth character.	~{precinct.name[2:6]}	34-5
	~{split.name[2:6]}	CDEF
Add spaces to the beginning of the string for a total of 12 characters	~{precinct.name[:12]}	<space><space><space> <space><space>1234-567
	~{split.name[:12]}	<space>ABCDEFGHIJK
Add zero to the beginning of the string for a total of 12 characters.	{precinct.name[:012]}	00001234-567
	{split.name[:012]}	0ABCDEDEDGHIJK

Using a macro for a serial number in a stub

ClearDesign contains a macro that can insert a placeholder for a serial number in headers for stubs. This macro enables jurisdictions to insert a placeholder for a unique number in a stub appearing at the top or bottom of a card. When the ADF for the elections gets loaded into ClearAccess or PrintNow, an administrator can specify the starting value for the serial number.

To insert a serial number in a stub, use the Ballot Text editor for **Header Type** of Card Stub Top or Card Stub Bottom.

The basic format of the macro for the serial number is:

~{serialNumber}

This basic format inserts a number that gets incremented on each card. The basic format does not contain any leading zeros.

To specify the number of digits in a serial number, use an auxiliary format, such as:

`~{serialNumber[0:4]}`

This example is a placeholder for a serial number containing four digits. Any unused digits are printed as leading zeros.

Chapter 4. Developing election templates

For any jurisdiction, certain information stays the same for all elections. This information can change occasionally, but not for every election.

Jurisdictions can back up initial election setup (languages and voter groups) and geographical information (districts, precincts, and splits) for reuse across multiple elections. This chapter describes how to set up jurisdictional and geographical information.

4.1 Setting up elections

This section describes how to set up elections.

4.1.1 Elections view

The **Elections** view manages the elections residing on the server. The Elections view is the default view that appears when you log on to ClearDesign. Tasks available from the Elections view include adding, deleting, and updating elections.

Elections				
Restore	Add	Delete	Search:	Copy PDF Excel CSV Print Show / hide columns
☐	Sort Seq	Name	Election State	
☐ Edit	10	Clear County General Election Demo (Multiple Sizes)	Election Created	
☐ Edit	40	Election 40	Election Created	

Figure 4-1. Elections view (default columns shown)

Use the **Show / hide columns** button to select which columns appear. Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Election State, Log Count, Election State, and Version. By default, the Sort Seq, Name, and Election State columns appear.

4.1.2 Basic view of an election

The **Basic** view provides a summary of an individual election.

To reach the **Basic** view for a given election, click **Name** column for the desired election in the **Elections** view. For an example of the **Elections** view, see Figure 4-1 on page 76.

Basic			
Name	Election 20	Sort Seq	20
Short Name	Election 20	Abbreviation	Elec20
Import ID		Export ID	
Last Edit By	admin@joeS	Last Edit Time	2018-03-27 11:57:45
Election Date	2018-03-06	Election State	Election Created
Jurisdiction Name			
Official's Title		Official's Name	
Straight Party Type	None	Cross Endorse Type	On Ballot For Each Voter Group
Precinct Reporting Threshold	10	Ballots Generated	False

Figure 4-2. Basic view of an election

Table 4-1 describes the buttons available for the Basic view.

Table 4-1. Buttons: Basic view of an election

Button	Description	See
Import Data	For importing election data	"Guidelines for importing election data" on the next page
Export BDF	For exporting a ballot definition file (BDF or BDFx) to ClearCount and ClearCast	"Exporting a ballot definition file (BDF or BDFx)" on page 237
Export ADF	For exporting an encrypted accessible definition file (ADFx) to ClearAccess	"Exporting an encrypted accessible definition file (ADFx)" on page 235
Backup	For backing up an election and assigning it a validation code	"Procedure for backing up an election" on page 232
Reports	For selecting from a list of printable ClearDesign reports	"Ballot proofing reports" on page 238
Edit	For modifying basic election settings through the Election dialog	"Adding an election" on the next page

4.1.3 Guidelines for importing election data

The following guidelines apply to importing election data:

- ClearDesign supports importing external data other than headers.
- Some state authorities provide jurisdictions with import files that contain jurisdiction and election-specific information.
- During import, ClearDesign tests the data for required fields and formatting. If blue warning messages appear when importing data into ClearDesign, check with the provider of the import data to ensure that file contains the appropriate data and formatting.
- Import an election from a BDF or BDFx only for testing and data verification. Do not import from a BDF or BDFx to create a new election.

4.1.4 Guidelines for reimporting election data

The following guidelines apply to reimporting election data:

- When you reimport a data source, ClearDesign compares the imported entities to existing entities and does the following:
 - Adds new entities
 - Updates existing entities as needed
- ClearDesign never deletes entities during the import process.
- Because importing can result in unintended results, do so only with the guidance of Clear Ballot Technical Support.
- When you start to import new election data on top of an existing election, ClearDesign displays a warning. If you proceed, ClearDesign bundles the two elections into one.

4.1.5 Adding an election

To add (create) an election:

1. From the **Administration** menu, select **Elections** if it is not already selected.
The **Elections** tab appears in the content pane on the right.
2. From the Elections view, click **Add**.
ClearDesign displays the Election dialog (Figure 4-3).

Figure 4-3. Election dialog (Add mode)

3. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

ClearDesign does not automatically prevent you from creating more than one election with the same name. If you do so, both elections appear in the Elections view.

4. In **Election Date**, enter date in the format mm/dd/yyyy or click in the field to select a date from the calendar tool.

ClearDesign requires you to enter or select a valid **Election Date** or you cannot save the election. If you do not change the **Election Date** placeholder (mm/dd/yyyy) and click **Save**, ClearDesign displays the following message:

time data ' does not match format 'yyyy-mm-dd'

5. (Optional) Clear Ballot recommends that you enter identifiers in the following fields:
 - **Jurisdiction Name**
 - **Official's Title**
 - **Official's Name**

6. (Optional) Import election data from a file.

You may import data when creating an election in the following situations:

- Some states provide import files containing jurisdiction-specific and election-specific data. Using an import file avoids a large amount of manual data entry.
See "Supported data import formats" on page 255.
- In some rare situations, you may be required to import data contained in a BDF for testing and verification.

To import data into the election:

- a. In **Import file**, click **Browse** to locate and select the desired file.
 - b. Enter a **Password**, if required.
7. When you complete filling in the Election dialog, click **Save**.

ClearDesign displays a progress indicator as it creates the new election. When complete, the new election appears on the **Elections** view.

If have specified an encrypted BDFx import file and click **Save** without supplying the correct password, ClearDesign does not create the new election. Instead, ClearDesign displays the message shown in Figure 4-4 below.

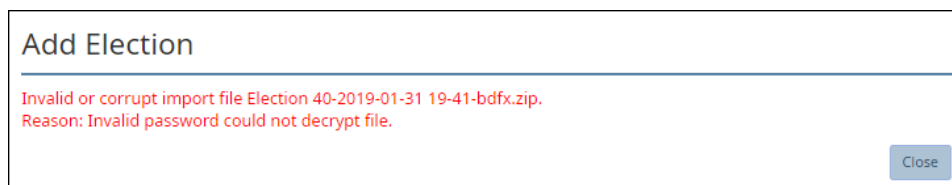


Figure 4-4. Error message: importing data from a BDFx and failing to supply a correct password

4.1.6 Editing an election

To edit settings for an existing election:

1. From the **Elections** view, locate the election.
2. Click the **Edit** button for the election.

ClearDesign displays the Election dialog (Figure 4-5).

The screenshot shows the 'Election: Clear County General Election' dialog box. It has a title bar with 'Save', 'Reset', and 'Cancel' buttons. The dialog is divided into two columns of fields. The left column contains: Name (Clear County General Election), Short Name (CC General), Import ID, Election Date (11/07/2018), Jurisdiction Name (Clear County), Official's Title, Straight Party Type (None), and Precinct Reporting Threshold (10). The right column contains: Sort Seq (10), Abbreviation (CCGen), Export ID, Election State (Media Created), Encrypt BDF On Export (checkbox), Official's Name, and Cross Endorse Type (On Ballot For Each Voter Group).

Name	Clear County General Election	Sort Seq	10
Short Name	CC General	Abbreviation	CCGen
Import ID		Export ID	
Election Date	11/07/2018	Election State	Media Created ▼
Jurisdiction Name	Clear County	Encrypt BDF On Export	☐
Official's Title		Official's Name	
Straight Party Type	None ▼	Cross Endorse Type	On Ballot For Each Voter Group ▼
Precinct Reporting Threshold	10		

Figure 4-5. Election dialog (Edit mode)

3. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

For the **Name** of an election, use a maximum of 38 characters, including spaces, to ensure that ClearCast and ClearCount can import the BDF or BDFx file.

4. (If necessary) In **Election State**, select one of: Election Created, Ballots Created, Cards Created, or Media Created.

See "Election states" on page 22.

As you move through the process of setting up an election, the **Election State** becomes more restrictive. The **Election State** is a safeguard that prevents you from accidentally invalidating previous work. However, if a change is necessary, this field enables you to return the election to an earlier state where you can make the change.

After ClearDesign has created media, do not change the **Election State** to a value that is earlier than Media Created and then try to change the **Name** or **Election Date**. If you try to do so, ClearDesign displays a warning message similar to Figure 4-6 on the next page.

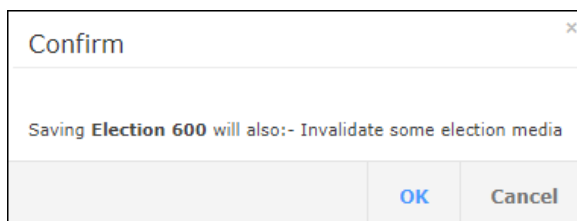


Figure 4-6. Warning message when changing the Name field of an election will invalidate media.

If you proceed and change the **Name** or **Election Date**, ClearDesign replaces the existing media hash, which makes it impossible to update the election in ClearCount. In ClearCount, you must create a new election.

5. (Optional) Clear Ballot recommends that you enter identifiers in the following fields:

- **Jurisdiction Name**
- **Official's Title**
- **Official's Name**

6. (Optional) Deselect **Encrypt BDF on Export**.

By default, **Encrypt BDF on Export** is selected and ClearDesign exports an encrypted (BDFx) file where the filename ends in **bdfx.zip**.

Encryption reduces the vulnerability of brute-force attacks on the file's password. ClearDesign uses the PDFKDF2 (Password-Based Key Derivation Function 2) encryption mechanism, which is part of the RSA Laboratory Public-Key Cryptography Standards (PKCS).

To produce an unencrypted BDF file, deselect the **Encrypt BDF on Export**. An unencrypted BDF filename ends in **bdf.zip**.

7. (Optional) Select the **Straight Party Type**.

The **Straight Party Type** field indicates how adjudication handles ambiguous cases where marks appear in a straight-party voting (SPV) contest *and* in the partisan contests controlled by the SPV contest. Table 4-2 lists the options for the **Straight Party Type** field.

Table 4-2. Options for the Straight Party Type field

Option	Description
None	(Default) If your jurisdiction does not use SPV, leave the default value of None.
Exclusive	An SPV-selected party choice applies only if all ovals of a partisan contest are entirely blank. Otherwise, only the marked ovals are counted, and SPV is not applied to that contest.

Table 4-2. Options for the Straight Party Type field (continued)

Option	Description
Exclusive One Touch	This option uses the same logic as Exclusive. An exception occurs when voting a straight-party ticket in ClearAccess and then selecting a choice associated with a different party. In this situation, all the straight-party choices become deselected and the choice associated with the different party remains selected. Normal vote-selection rule apply when the ClearAccess voter selects additional choices. For example, a voter receives a warning if he or she tries to overvote the contest.
Override	SPV overrides or ignores any existing marks in partisan contests
Combine	The SPV-selected party choice is applied to the contest. If there are less candidates for the select party than allowed choices, any marks for additional candidates are counted. If the marked candidates plus the candidates for the SPV-selected party will result in an overvote, only the SPV-selected candidates are counted.
Additive	The SPV-selected party choice is applied to the contest. Any marks for additional candidates are counted. If the marked candidates plus the candidates for the SPV-selected party will result in an overvote, the entire contest is considered as overvoted, and no votes are counted.

8. (Optional) In **Cross-Endorse Type**, select one of options listed in Table 4-3.

Table 4-3. Options for the Cross Endorse Type field

Option	Description
None (Default)	The None option disables cross-endorsing candidates the election. If you select None, you can associate each candidate with only one Voter Group in the dialog for each respective candidate. See "Adding or editing candidates" on page 136.
On Ballot Once	A cross-endorsed candidate receives a single oval that is endorsed by all parties applicable to that candidate.
On Ballot for each Voter Group	A cross-endorsed candidate appears in a contest with unique ovals for each party that endorses the candidate.

9. (Optional) In **Precinct/Split Reporting Threshold**, enter the reporting threshold for use in tabulation.

Any number of ballots less than this value appear obscured in ClearCount reports to protect voter anonymity.

10. Click **Save**.

4.1.7 Importing data into existing elections



Before you import data into an existing election, contact Clear Ballot Technical Support.

To import data into an existing election:

1. Do one of the following:
 - Select the election under development.
 - Create an empty election.

ClearDesign displays the **Info** view for the election.

2. Click **Import Data**.

ClearDesign displays the Import Data Files dialog.

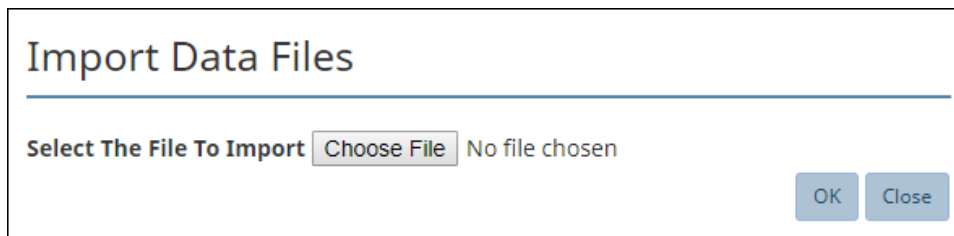


Figure 4-7. Import Data Files dialog

3. Click **Browse**.

The browser-specific File Upload dialog appears.
4. Locate and select the required data file.
5. Click **OK** to start importing data.



ClearDesign determines the format of the import file. See "Supported data import formats" on page 255.

A status bar displays progress and a confirmation message appears upon completion.

6. Click **Close**.

4.1.8 Deleting elections



Before you delete an election, make sure to back it up. If you delete an election that you have not backed up, you cannot recover it. See "Procedure for backing up an election" on page 232.

To delete one or more elections:

1. From the **Elections** tab, select (check) the desired elections and click **Delete**.
2. When ClearDesign displays a confirmation message, click **OK** (Figure 4-8).

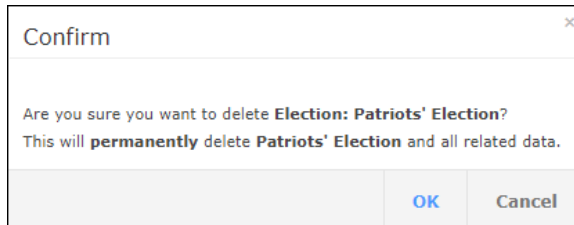


Figure 4-8. Example: confirmation message when deleting an election

ClearDesign deletes the elections and refreshes the screen.

4.2 Setting up languages

This section describes various setup options for languages. Clear Ballot recommends that you set up languages after election content and formatting is complete and stable.

ClearDesign creates ballots in English by default. You can add as many other languages as required. ClearDesign creates separate ballot image files for each language.

After adding a language, you associate it with the relevant splits. You can do this now or later if you have not yet added all splits to the election.

Table 4-4 lists some considerations for translating ballot text and audio. This table also references the pertinent sections of this manual.

Table 4-4. Language considerations for language design

Requirement	Action	See
Paper ballots only/ English only	No translation or audio required.	Skip this section.
Paper ballots/ Translation required	Translate ballot text in ClearDesign.	"Exporting, translating, and importing language text files" on page 91

Table 4-4. Language considerations for language design (continued)

Requirement	Action	See
Audio required (ClearAccess)/ English only	Use automatic text-to speech. You can preview this audio by clicking the TTS button on the affected screens.	"Text-to-speech (TTS)" on page 97
Audio required (ClearAccess)/ Translation required	Translate ballot/contest questions. Translate ClearAccess device messages.	"How to record device messages and ballot text" on page 98

4.2.1 Displaying the Languages view

To display the Languages view, select one of the following options:

- From the Election menu, select **Languages**.
- From the Info view of an election, click the Languages tab.

ClearDesign displays the Languages view (Figure 4-9).

Languages	
Add Delete Export Text Import Text Export Audio Import Audio Search: Copy PDF Excel CSV Print Show / hide columns	
Sort Seq	Name
10	English
20	Spanish

Figure 4-9. Languages view (default columns shown)

Selectable columns: Devices Messages view

Use the **Show / hide columns** button to select which columns appear. Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, and ISO Code. By default, the Sort Seq and Name columns appear.

Action buttons: Languages view

Action Button	Description
Add	See "Adding languages and changing language settings" on the next page.
Delete	To delete a language other than the English: 1. Select the check box for each desired language. 2. Click Delete. You cannot delete English, which is the default language.
Export Text	See "Exporting language text files for translation" on page 92.
Import Text	See "Importing a translated language text file" on page 95.
Export Audio	See "Steps for recording device messages and ballot text" on page 98.
Import Audio	See "Steps for recording device messages and ballot text" on page 98.

Additional tabs available from the languages view

Tab	See
Device Messages	"Displaying the Device Messages view" below
Audio	"Displaying the Audio view" on page 95

4.2.2 Displaying the Device Messages view

To display the Device messages view (Figure 4-10S), click the Devices Messages tab when on the Languages view.

Languages

Device Messages

Audio

Reset

Search:

Copy

PDF

Excel

CSV

Print

Show / hide columns

	Name	Device Class	Language	Message	Audio Source	Audio Length
Edit		Accessible Marker	English	erase		
Edit		Accessible Marker	Spanish	erase		

Figure 4-10. Device Messages view (default columns shown)

Selectable columns: Device Messages view

Click **Show / hide columns** to select which columns appear. Selectable columns include: **Name**, **Log Count**, **Device Class**, **Language**, **Message**, **Audio Source**, and **Audio Length**. By default, all columns appear other than **Log Count**.

See "Editing device messages" on page 89.

Reset button

Click **Reset** to return device messages to their default state.

4.2.3 Adding languages and changing language settings

To add a language to an election template:

1. Select one of the following options:
 - To add a language, click **Add** from the Languages view.
 - To edit the settings of a language, click **Edit** in the desired row of the Languages view.

ClearDesign displays the Language dialog.

The screenshot shows a 'Language: Spanish' dialog box. At the top right are 'Save', 'Reset', and 'Cancel' buttons. Below the title bar are two tabs: 'Basic' (selected) and 'Splits'. The 'Basic' tab contains several input fields: 'Name' (Spanish), 'Short Name' (Spanish), 'Import ID' (empty), 'Iso Code' (es with a dropdown arrow), 'Sort Seq' (30), 'Abbreviation' (Spanis), and 'Export ID' (empty).

Figure 4-11. Language dialog, Basic tab

2. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

3. (Optional) In **ISO Code**, select the ISO code of the language from the drop-down list.

This setting is required for generating text-to-speech audio. For information about this feature, see "Text-to-speech (TTS)" on page 97.

- (Optional) Select the **Splits** tab.

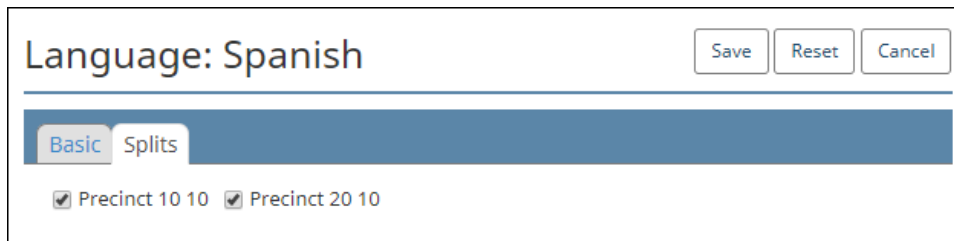


Figure 4-12. Language dialog, Splits tab



By default, all splits in the election are selected. Clear the check boxes of any splits that do not require ballots in the current language.

- Click **Save**.

4.2.4 Editing language settings

To edit settings for a language:

- From the **Languages** view, locate the language.
- Click the **Edit** button for the language.

The Language dialog appears.

- Modify settings as required.
- Click **Save**.

4.2.5 Deleting languages from elections

To delete a language from an election:

- From the **Languages** view, check the languages to delete.
- Click **Delete**.
- When the confirmation message appears, click **OK**.

4.2.6 Editing device messages

To edit and record an individual device message:

- From the **Languages** view, select the **Device Messages** view.
- Click **Edit** in the row corresponding to the desired device message.

Ensure the correct language is selected.

ClearDesign displays the Device Message dialog for the selected device message. Figure 4-13 shows an example.

Figure 4-13. Device Message dialog

3. In **Message**, edit the text of the message:
 - To apply boldface, highlight any portion of the message and click **B**.
 - To view the HTML source code, click **<>**.

You can use only the HTML tags **
, **<p>, and ****.
4. (Optional) To create an MP3 recording of the message that ClearAccess can use, do the following:
 - a. Click **Record**.
Google Chrome may issue a message about using your internal microphone.
 - b. Read the message.
 - c. When done, click **Stop**.
5. When you finish editing the device message, click **Save**.

For straight party elections and open primaries, Clear Ballot recommends that jurisdictions edit device messages to suit their specific requirements and circumstances.

4.2.7 Using HTML in device messages

You can form device messages by using HTML. You can use only the following HTML tags:

- <p>
-
-

Figure 4-14 an example of HTML in a device message.

Figure 4-14. Example of HTML in a device message

4.2.8 Using macros in device messages

Device messages can use macros to handle variable text, such as geographical information. Figure 4-15 shows an example.

Edit	welcomeText	English	Ballot for the ~(election.name) ~{split.districts[city].name} ~{split.districts[cong].name} ~{split.districts[ssen].name} ~{split.districts[srep].name} ~(election.electionDate)
------	-------------	---------	---

Figure 4-15. Example of macro usage in device messages

For more information, see "Using Macros" on page 65.

4.2.9 Exporting, translating, and importing language text files

This section describes how to:

- Export and translate language text files
- Import translated files into ClearDesign

4.2.9.1 Exporting language text files for translation

To export language text files for translation:

1. If the election was upgraded from a previous version of ClearDesign software, click **Reset** from the **Device Messages** view.

The reset action removes previous audio recording recordings of device messages and ensures that your election has the most up-to-date device messages. The reset action does not remove audio recordings of contests, candidates, and so on.

2. From the **Language** view of the election, click **Export Text**.

The Export Language Text Files dialog appears (Figure 4-16).

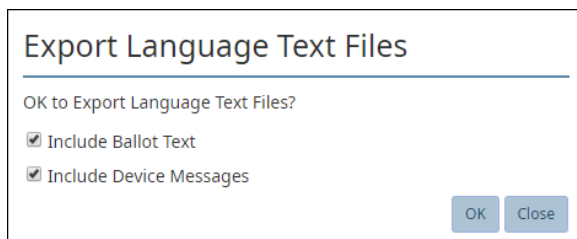


Figure 4-16. Export Language Text Files dialog

The Export Language Texts Files dialog contains two option that are selected by default:

- **Include Ballot Text**
- **Include Device Messages**

3. To export the language text data:
 - a. (Optional) Deselect either or both of the options in the Export Language Text Files dialog.
 - b. Click **OK**.

When you click **OK**, ClearDesign creates a zip folder with a name in the following format in your browser-specific download folder:

ElectionName-yyyy-mm-ddmm-ss-text.zip

The zip folder contains an HTML file named TextEditor.html and one CSV file for each language in the election.

4.2.9.2 Using Google Translate

This section provides some guidelines for using Google Translate.

Do not rely on Google Translate alone for completely accurate and error-free translations. Use the output from Google Translate only as a baseline for review and verification by a human translator.

The steps in the remainder of this section assume the following:

- You have exported the Zip language folder as described in the previous section.
- Google Chrome is installed and configured as the default browser on your computer.

To use Google Translate, do the following:

1. Transfer the zip folder that you exported in the previous section to a computer that can access the Internet.
2. Navigate to the location of the zip folder, right-click it, select **Extract All**, and specify a location.

Window Explorer opens the extracted language text folder. Figure 4-17 shows an example.

Name	Date modified	Type	Size
 Spanish.csv	1/24/2018 1:56 PM	Microsoft Excel C...	66 KB
 TextEditor.html	1/24/2018 1:56 PM	Chrome HTML Do...	305 KB
 Vietnamese.csv	1/24/2018 1:56 PM	Microsoft Excel C...	68 KB

Figure 4-17. Example of an extracted language text folder

3. Double-click the file TextEditor.html to open it in Google Chrome.

The Text Editor appears in the browser window (Figure 4-18).



Figure 4-18. TextEditor.html opened in Google Chrome

4. Click the **Open** button in the Text Editor.
5. When the Open dialog appears, click to select the CSV file associated with a language and click the **Open** button (Figure 4-19 below).

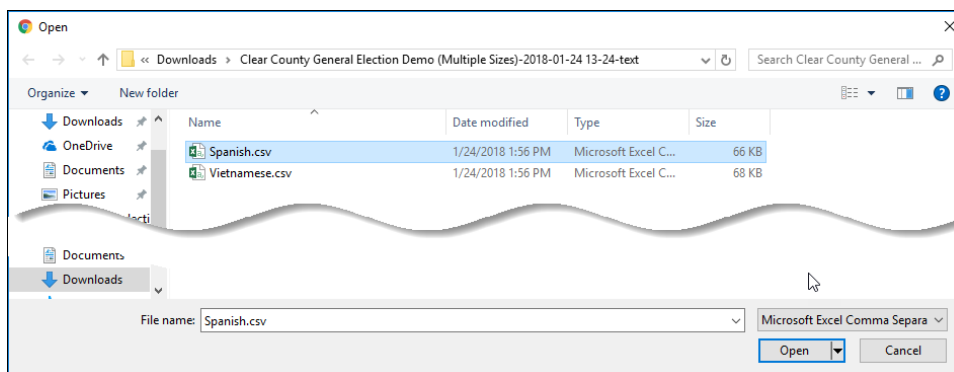


Figure 4-19. Open dialog

The contents of the CSV file for the selected language appears in the Text Editor (Figure 4-20).

Text Editor - Spanish.csv Select Language Powered by Google Translate Open Save

Note: if using Google Translate, make sure to scroll to the end of the page before pressing Save so that all translations are generated.

Type	ID	Name	DefaultText	LanguageName	LanguageText
VoterGroup	1	Non-Partisan	Non-Partisan	Spanish	Non-Partisan
VoterGroup	2	Cyan Party	Cyan Party	Spanish	Cyan Party
VoterGroup	3	Beige Party	Beige Party	Spanish	Beige Party
VoterGroup	4	Magenta Party	Magenta Party	Spanish	Magenta Party
VoterGroup	5	Teal Party	Teal Party	Spanish	Teal Party
VoterGroup	6	Independent	Independent	Spanish	Independent
Contest	8	Madison City County Judge (Single Precinct and Write-in))	Madison City Clear County Judge	Spanish	Madison City Clear County Judge
			Vote for one		Vote for one
Contest	6	County Parks Board (Choose 2 out of 8 n/m)	Clear County Parks Board	Spanish	Clear County Parks Board
			Vote for two		Vote for two

Figure 4-20. CSV language file in the Text Editor window (partial window shown)

- Make a selection from the **Select Language** drop-down list.
- Scroll to the end of the file to ensure that everything in the Language Text column gets translated.
- Click the **Save** button.

The Text Editor saves the translated CSV file and the **Open** button becomes disabled.

- To translate another CSV or continue working on a CSV file that you previously saved, do the following:
 - Right-click in the browser window and select **Reload** to clear the previously loaded file from the Text Editor.
 - Repeat steps 4 through 8.

After you complete processing all files with Google Translate, create a zip folder containing the translated CSV files. Continue with "Importing a translated language text file" on the next page.

4.2.9.3 Using a third-party translator

To outsource translation to a vendor or verify the translation manually, do the following:

- Export the language text files to a zip folder.
See "Exporting language text files for translation" on page 92.
- Extract the zip folder.
- Manually open each CSV file and edit it with an appropriate program.
Microsoft Excel will work in most cases, but translation agencies may have their own unique tools.
- Once the translations are complete, zip the CSV files together.
- Reimport the Zip file into ClearDesign by using the **Import Text** button under the Languages model.

See "Importing a translated language text file" on the next page.

If you have problems reimporting your Zip package, double-check that the formatting parameters in the CSV file were not compromised during the translation process. Contact Clear Ballot Technical Support if problems persist.

4.2.9.4 Importing a translated language text file

This section describes how to import a translated language file processed by Google Translate or by a third-party vendor.

To import a translated language text file:

1. From the **Language** view of the election, click **Import Text**.

The Import Language Text Files dialog appears.

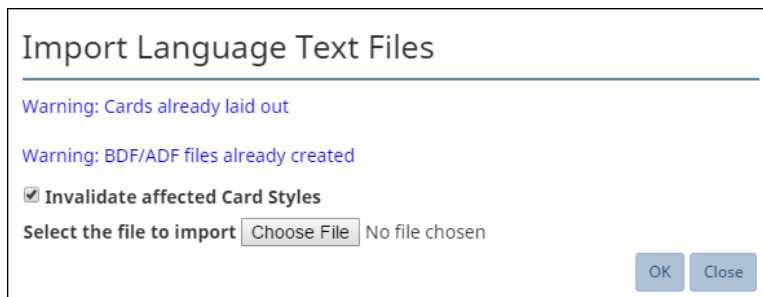


Figure 4-21. Import Language Text Files dialog

2. To import the language text data:

- a. Deselect **Invalidate affected Card Styles**, if desired.

By default, this option is selected. As a result, ClearDesign invalidates any text affected by the import in cards that are already laid out. A message in the dialog indicates if card have already been laid out. A message also indicates if the ADFx, BDF, and BDFx have been created so that you can regenerate these files after the import.

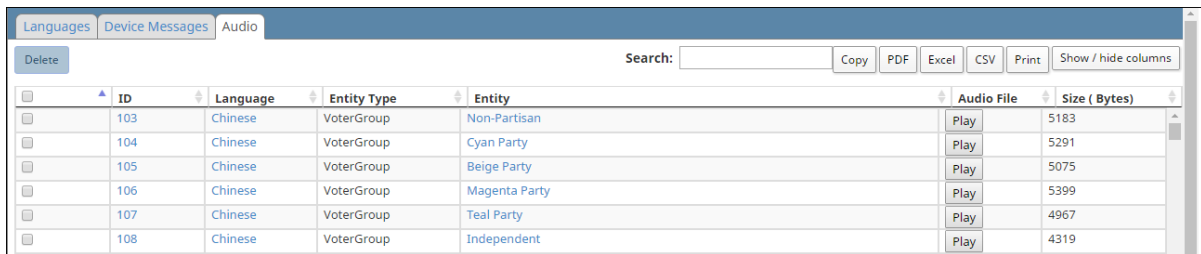
- b. Click **Choose File** to locate and select the Zip file.
- c. Click **OK**.

New and modified translations replace affected ballot text or device messages, for which you can now generate audio for use by the ClearAccess system. If the ballot is only in English, ClearAccess automatically uses Chrome's text-to-speech functionality.

4.2.10 Displaying the Audio view

To display the Audio view (Figure 4-22) , click the Audio tab when in the Languages view.

After you import audio into your election, the Audio tab displays all the available files for the election.



ID	Language	Entity Type	Entity	Audio File	Size (Bytes)
103	Chinese	VoterGroup	Non-Partisan	Play	5183
104	Chinese	VoterGroup	Cyan Party	Play	5291
105	Chinese	VoterGroup	Beige Party	Play	5075
106	Chinese	VoterGroup	Magenta Party	Play	5399
107	Chinese	VoterGroup	Teal Party	Play	4967
108	Chinese	VoterGroup	Independent	Play	4319

Figure 4-22. Audio view (default columns shown)

Selectable columns

Table 4-5 lists the selectable columns of the Audio view.

Table 4-5. Selectable columns: Audio view

Column	Description
ID	The internal ID value that identifies the audio file.
Language	The language of the audio file.
Log Count	The number of logs generated for this entry. This is the only column that does not appear by default on the Audio tab. To display this column, use the Show / hide columns button.
Entity Type	The type of content of the file. This column is useful for identifying files with similar content, but with different purposes.
Entity	The name of the entity to which the audio pertains.
Audio File	Use the Play button to review the previously recorded audio file, verify pronunciation, and check the overall quality. - Rerecord any errors in pronunciation by using the device messages, contest, or header entity related to the given audio file. - For text-to-speech corrections, re-export the audio. Then fix the pronunciation by modifying the text in the Ballot Text editor.
Audio Length	The length of the audio file in bytes

4.2.10.1 Recording audio

Two of Clear Ballot's products, ClearAccess and ClearCast, use audio recordings to increase accessibility. You use ClearDesign to record audio for both ClearAccess and ClearCast.

There are two options for recording audio:

- Text-to-speech
- Manual recording

You can use these options individually or in tandem.

4.2.10.1.1 Text-to-speech (TTS)

Text-to-speech, also known as TTS, uses computer-generated audio to record all necessary dialog for a given language. Use the Ballot Text editor to record text-to-speech.

ClearAccess and ClearCast automatically provide text-to-speech translations for English, even if no audio is recorded. To preview text-to-speech in ClearDesign, click the **TTS** button in the Ballot Text editors for contests, headers, and device messages.

See the "How to record device messages and ballot text" on the next page for more information

4.2.10.1.2 Manually recording audio

You can record manually in ClearDesign by using the record feature in the following locations:

- Ballot Text editor
- Device Message tab, under Language
- AudioEditor.html

Remember to record in all these locations because not all text present in ClearAccess and ClearCast is derived from Contest and Header content. A summary of all available text is present under the **Audio** tab.

Manually recording audio can be useful for difficult-to-pronounce names, which present a challenge for text-to-speech.

You can also change the pronunciation of text-to-speech by editing the text in the Ballot Text editor. Therefore, manual recording is usually unnecessary except in rare cases.

You can record manually in tandem with text-to-speech recording, if desired.

You can record audio with systems other than ClearDesign, but you must name the audio files to correspond with any text strings within ClearDesign.

All audio files must be in MP3 format.

For more information, see "How to record device messages and ballot text" on the next page.

4.2.10.2 How to record device messages and ballot text

This section describes how to record device messages and ballot text.

For assistance with recording audio, contact Clear Ballot Technical Support.

AudioEditor and Voice RSS

The AudioEditor is included when audio is exported. The AudioEditor contains a link to Voice RSS, which is a third-party provider of text-to-speech in many languages. When generating audio, Clear Ballot uses the services provided by Voice RSS. Clear Ballot recommends this service for voice generation.

To use Voice RSS, go to <http://www.voicerss.org/> and set up an account. You must purchase a license to use Voice RSS. You can use Voice RSS to process up 1000 KB of data free each day. If you process larger amounts, charges apply.

Steps for recording device messages and ballot text

To record device messages or ballot text:

1. From the **Language** view of the election, click **Export Audio**.

The Export Language Audio Files dialog appears.

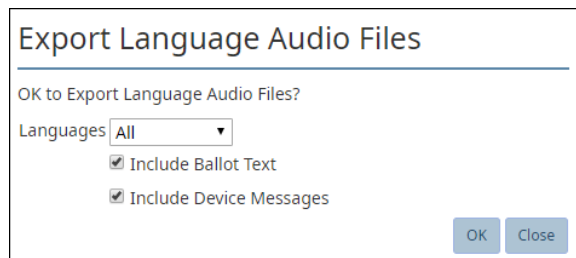


Figure 4-23. Export Language Audio Files dialog

2. To export the language audio data:
 - a. In Language, select **All** or a specific language.
 - b. (Optional) Check **Include Ballot Text**.
 - c. (Optional) Check **Include Device Messages**.

A Zip file named `ElectionName-mm-dd mm-ss-audio.zip` appears in the browser-specific download folder. The file contains a folder for each language in the election and a file named `AudioEditor.html`.



`AudioEditor.html`, the Audio editor, is a program for manually recording audio or converting text to audio using the Voice RSS online service.

3. Extract the contained folders and `AudioEditor.html` to a dedicated folder on a computer with an Internet connection.

4. From the extracted archive, double-click `AudioEditor.html`.

The Audio editor appears in a browser window. (No text is loaded initially.)



Figure 4-24. Audio editor window (audio data loaded)

5. In **TTS Key**, enter the key provided by the Voice RSS service on registration.

When you are logged into Voice RSS, the TTS key is available under **My Account**.

6. Click **Open** to locate and open the Zip file.
7. For each language:
 - a. Click the name of a language.
The data for the selected language appears.
 - b. Complete any of the following optional steps
 - Select the desired voice (inflection) from the drop-down.
 - Click **Generate** to record all text using the selected inflection.
 - Click **Delete** to remove all existing recordings.
8. Click **Save**.

A Zip file appears in the browser-specific download folder. The file contains a folder containing MP3 files for each language in the election.

9. From the **Language** view of the election, click **Import Audio**.

The Import Language Audio Files dialog appears.

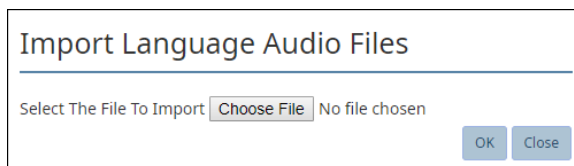


Figure 4-25. Import Language Audio Files dialog

10. To import the language audio data:
 - a. For **Select the file to import**, click **Choose File** to locate and select the Zip file.
 - b. Click **OK**.

The Audio tab now includes the imported audio files.

4.3 Setting up voter groups

Voters in an election are grouped by geographical splits and nongeographical categories. The system automatically creates the Nonpartisan voter group, which cannot be deleted. Additional voter groups typically represent political parties and support the creation of partisan races, endorsement of candidates, and production of separate ballots in closed primary elections. Absentee and nonabsentee voter groups can also be defined if absentee and polling voters vote on distinct ballots.

Voter registration counts are recorded by split and voter group, and can be updated throughout the election management process as current statistics are received. Voter registration is tracked as follows:

- **Primary election**—Voter registration is typically tracked by split and political party.
- **General election**—Voter registration is tracked by Nonpartisan registration in the split.

Jurisdictions can use voter registration amounts to predict voter turnout and estimate printing requirements for elections, as well as for sizing precincts.

4.3.1 Displaying the Voter Groups view

To display the Voter Groups view of an election:

1. From the Elections view, click the name of the desired election.

Clear Design displays the Info tab for the selected election.

2. From the Info tab, click the Voter Groups tab.

ClearDesign displays a Voter Groups view that is similar to Figure 4-26.

Voter Groups			
Add Delete		Search:	Copy PDF Excel CSV Print Show / hide columns
☐	Sort Seq	Name	
☐ Edit	10	Nonpartisan	
☐ Edit	20	Democrat	
☐ Edit	30	Republican	

Figure 4-26. Voter Groups view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, and Track Registration.

Click **Show / hide columns** to select which columns appear in this view.

Action buttons available from the Voter Groups view

Table 4-6 below lists the action buttons available from the Voter Groups view.

Table 4-6. Action buttons available from the Voter Groups view

Button	Description
Add	"Adding or editing a voter group" below.
Delete	To delete voter groups: 1. Select the check boxes in the rows corresponding to the voter groups that you want to delete. 2. Click Delete. You cannot delete the default Nonpartisan voter group.

4.3.2 Adding or editing a voter group

1. Select one of the following options:
 - To create a new voter group, click **Add** from the Voter Groups view.
 - To edit the settings of an existing voter group, click **Edit** in one of the following locations:
 - In the row corresponding to the desired voter group in the Voter Groups view
 - In the Info view of the desired voter group

ClearDesign displays the Basic tab of the Voter Group dialog (Figure 4-28).

The screenshot shows the 'Voter Group: Republican' dialog box. At the top right are 'Save', 'Reset', and 'Cancel' buttons. Below the title bar are three tabs: 'Basic' (selected), 'Contests', and 'Registration'. The 'Basic' tab contains the following fields and controls:

- Name:** Text box containing 'Republican'.
- Short Name:** Text box containing 'Republican'.
- Import ID:** Empty text box.
- Track Registration:** Checkmark is checked.
- Sort Seq:** Text box containing '50'.
- Abbreviation:** Text box containing 'Republ'.
- Export ID:** Empty text box.
- Endorse Contests:** Checkmark is checked.
- Ballot Text:** A section with a language dropdown set to 'English' and a rich text editor. The editor has a toolbar with 'Record', 'TTS', 'Play', 'Stop', 'Delete', and 'Source: tts'. The text area contains 'Republican' and a small 'p' at the bottom.

Figure 4-27. Voter Group dialog

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.



The voter group with the lowest **Sort Seq** becomes the default for all for unendorsed candidates in an election.

3. (Optional) Select (check) **Endorse Contests**.

By default, **Endorse Contests** is deselected.

If you select **Endorse Contests**, you can associate the voter group with contests. You select this field to identify contests within a political party in a primary election.

After you select **Endorse Contests**, the Contests tab appears, but remains empty until you add contests to the election and associate contests with the current voter group.

4. (Optional) Select (check) **Track Registration**.

By default, **Track Registration** is deselected.

If you select **Track Registration**, ClearCount can maintain a count of voter registration for the current voter group.

After you select **Track Registration**, the Registration tab appears, but remains until empty you add precincts and splits to the election.

5. (Optional) In the Ballot text editor, edit and format the text associated with the voter group.

Examples

The ballot text for a voter group is usually the name of a political party, such as "Democratic", "Republican", or "Libertarian".

Text entry and formatting in the Ballot text editor

Text entry and formatting options in the Ballot Text editor are similar those in word processing applications. For details, see "Ballot Text editor" on page 49.

Inherited default formatting in the Ballot Text editor

Any formatting in the Ballot Text editor overrides any inherited formatting according to the following precedence:

1. The Ballot Text editor inherits formatting from the **Layout Style** field value specified for the first ballot set listed in the Ballot Sets view.
2. The Layout tab of the current entity overrides the formatting inherited from the **Layout Style** field of the first ballot set.

- Any local formatting in the Ballot Text editor of the current entity overrides the formatting specified in the Layout tab of the current entity.

Language tabs in the Ballot Text editor

The Ballot text editor has one tab for each language in the election. By default, languages other than English inherit their formatting from the English tab. You can use the language tabs to customize the text and formatting according to language.

If you add languages to an election, Clear Ballot recommends that you do so after all English ballot text is stable.

"Adding languages and changing language settings" on page 88

- Click **Save**.

If the change will delete registration counts, invalidate cards, and invalidate election media, ClearDesign displays a confirmation message. The following image shows an example (Figure 4-28).

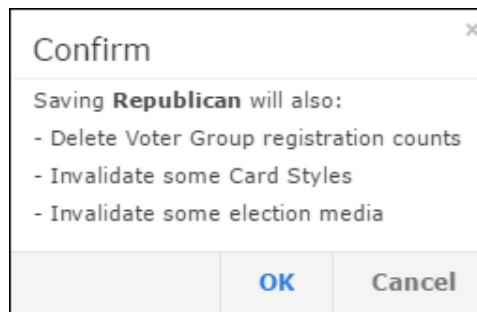


Figure 4-28. Confirmation message for changes to a voter group

- Click **OK** to confirm the changes.

4.3.3 Tracking registration counts by voter group

To track registration counts by voter group:

- Ensure the required precincts and splits are created.
- From the navigation pane, choose **VoterGroups**.

The **VoterGroups** view appears.

- Click the **Edit** button for the voter group.

The Voter Group dialog appears.

4. Ensure **Track Registration** is clicked **On**.

Split	Registration Count
01-center (Madison City Center) 10	0
01-north (Northern Madison City Area) 20	0
01-west (outside of Madison City Limits) 30	0
02	0
03	0
04-a (non-lakeside)	0
04-b (Lakeside residential limits)	0
05	0

Figure 4-29. Registration tab

5. For any entity in the **Split** column, increase or decrease the headcount in the **Registration Count** column.
6. Click **Save**.

Registration can also be affected by the precincts model in the navigation pane. You can also import and export voter registration files from the navigation pane.

4.4 Setting up district categories and districts

A district category is a set of geographically distinct (that is, nonoverlapping) districts that define an office or set of offices. Examples include congressional districts, state senate districts, school board districts, and so on.

4.4.1 Displaying the District Categories view

To display the District Categories view:

1. From the Administration menu, expand the **Elections** selection and click the name of the desired election to select it.

ClearDesign displays the Election menu in the left navigation pane and the Info tab for the selected election in the content pane.
2. From the Info tab of the election, click one of the following:
 - The District Categories tab that appears in the same row as the Info tab in the content pane.
 - The **District Categories** selection from the Election menu in the navigation pane.

ClearDesign displays a District Categories view that is similar to Figure 4-30.

District Categories

Districts

Add

Delete

Search:

Copy

PDF

Excel

CSV

Print

Show / hide columns

☐		Sort Seq	Name	Districts Count
☐	Edit	10	Jurisdiction Wide	1
☐	Edit	20	County Judges	4
☐	Edit	30	Madison City Limits Proper	1
☐	Edit	40	Lakeside incorporation into Greater Madison City Proposal	1

Figure 4-30. District Categories view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Districts Count, Districts, Unassigned Splits Count, and Unassigned Splits.

Click **Show / hide columns** to select which columns appear in this view.

Action buttons available from the District Categories view

Table 4-7 below lists the action buttons available from the District Categories view.

Table 4-7. Action buttons available from the District Categories view

Button	Description
Add	"Adding or editing a district category" on the next page.
Delete	To delete district categories: 1. Select the check boxes in the rows corresponding to the district categories that you want to delete. 2. Click Delete. You cannot delete that default Jurisdiction Wide district category.

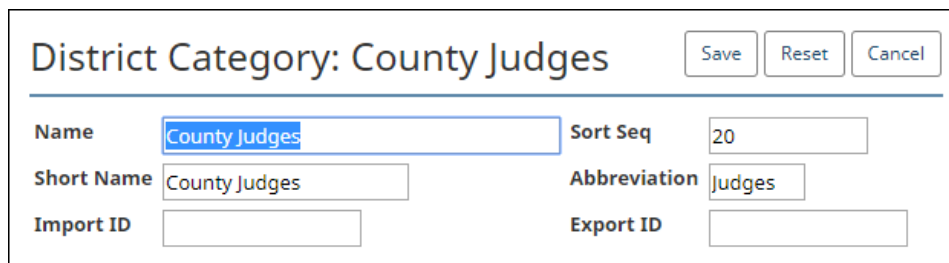
Districts tab available from the District Categories view

The Districts tab that is available from the District Categories view displays a view of all districts contained in an election. See "Displaying a Districts view" on the next page.

4.4.2 Adding or editing a district category

1. Select one of the following options:
 - To create a new district category, click **Add** from the District Categories view.
 - To change settings of an existing district category, click **Edit** in one of the following locations:
 - In the row corresponding to the desired district category in the District Categories view
 - In the Info view of the desired district category

ClearDesign displays the District Category dialog (Figure 4-31).



The image shows a 'District Category' dialog box for 'County Judges'. It has a title bar with 'District Category: County Judges' and three buttons: 'Save', 'Reset', and 'Cancel'. Below the title bar, there are six input fields arranged in two columns. The left column contains 'Name' (with 'County Judges' entered), 'Short Name' (with 'County Judges' entered), and 'Import ID' (empty). The right column contains 'Sort Seq' (with '20' entered), 'Abbreviation' (with 'Judges' entered), and 'Export ID' (empty).

Figure 4-31. District Category dialog

2. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

3. Click **Save**.

4.4.3 Displaying a Districts view

ClearDesign provides two classes of Districts views:

- A Districts view of all districts in an election

To display this view:

1. From the Election menu, select **District Categories**.
2. When the District Categories tab appears, select the Districts tab

- A Districts view of only the districts in a specific district category

To display this view:

1. From the Election menu, select **District Categories**.
2. When the District Categories tab appears, click the **Name** cell of the desired district category.
3. When Clear Design displays the Info tab the for the selected district category, click the Districts tab.

Figure 4-32 below shows a Districts view that lists all districts in an election.

District Categories

Districts

Delete

Search:

Copy

PDF

Excel

CSV

Print

Show / hide columns

	↕ Sort Seq ↕	Name ↕	District Category ↕	Election Districts Count ↕	Splits Count ↕	Contests Count ↕
Edit	10	Jurisdiction Wide	Jurisdiction Wide	5	8	7
Edit	10	Madison City Circuit Judge	County Judges	2	4	1
Edit	20	Northern Clear County Judge	County Judges	2	2	1
Edit	30	Southern Clear County Judge	County Judges	1	1	1

Figure 4-32. Districts tab showing all districts in an election

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, District Category, Precincts Count, Precincts, Splits Count, Splits, Contests Count, and Contests.

Click **Show / hide columns** to select which columns appear in this view.

Delete button of a Districts view

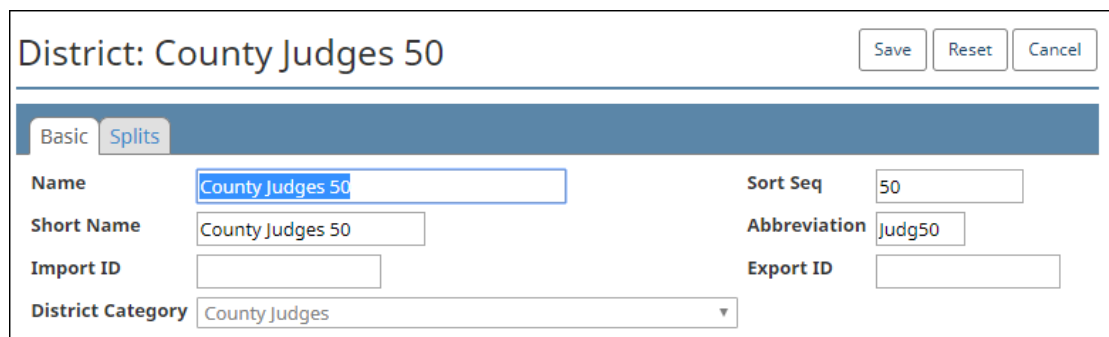
To delete a District from a Districts View, select the check boxes corresponding to the districts that you want to delete.

4.4.4 Adding or editing districts

To add a district to a district category or edit a district:

1. From the Election menu, select **District Categories**.
ClearDesign displays the Info tab for the district category.
2. Select one of the following options:
 - To add a district, click **Add District** on the Info tab for the desired district category.
 - To edit an existing district:
 - a. Click the Districts tab on the Info tab for the desired district category
 - b. On the Districts tab, click the **Edit** button in the row corresponding to the district that you want to edit.

ClearDesign displays the District dialog with the Basic tab selected (Figure 4-33 below).



District: County Judges 50

Save Reset Cancel

Basic Splits

Name County Judges 50

Short Name County Judges 50

Import ID

District Category County Judges

Sort Seq 50

Abbreviation Judg50

Export ID

Figure 4-33. District dialog, Basic tab

3. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**
- See "Common attributes of entities" on page 34.
- Short names for districts must be unique.
4. In **District Category**, select the required district category.
 5. Select the **Splits** view.
 6. Check all splits required for the district.
Splits can be added and chosen later.
 7. Click **Save**.

4.5 Precincts

This topic describes how to manage precincts.



Some jurisdictions use the term *election district* instead of *precinct*. The term that you see on ClearDesign screens depends the localization settings specified by your system administrator.

4.5.1 Displaying the Precincts view

To display the Precincts view:

1. From the Administration menu, expand the **Elections** selection and click the name of the desired election to select it.

ClearDesign displays the Election menu in the left navigation pane and the Info tab for the selected election in the content pane.

2. From the Info tab of the election, select one of the following:
 - The Precincts tab that appears in the same row as the Info tab in the content pane.
 - The **Precincts** selection available from the Election menu in the navigation pane.

ClearDesign displays a Precincts view that is similar to Figure 4-34 below.

Precincts Splits				
Add Delete Voter Count Import Voter Counts Export Voter Counts Search: Copy PDF Excel CSV Print Show / hide columns				
☐	Sort Seq	Name	Splits Count	
☐ Edit	10	01 (Greater Madison City Area)	3	
☐ Edit	20	02 (Southern Clear County)	1	
☐ Edit	30	03 (Northern Clear County)	1	
☐ Edit	40	04 (Lakeside Suburb and rural)	2	
☐ Edit	50	05 (Eastern Clear County)	1	

Figure 4-34. Precincts view

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Splits Count, Splits, Districts, Contests, Ballot Groups, Ballots.

Click **Show / hide columns** to select which columns appear in this view.

Action buttons available from the Precincts view

Table 4-8 lists the action buttons available from the Voter Groups view.

Table 4-8. Action buttons available from the Precincts view

Button	Description
Add	See "Adding or editing a precinct" below.
Delete	To delete precincts: 1. Select the check boxes in the rows corresponding to the precincts that you want to delete. 2. Click Delete.
Voter Count	See "Displaying voter counts" on page 112.
Import Voter Counts	See "Importing voter counts" on page 113.
Export Voter Counts	See "Exporting voter counts" on page 113.

4.5.2 Adding or editing a precinct

To add a precinct:

1. Select one of the following options:
 - To create a new precinct, click **Add** from the Precincts view.
 - To change the settings of an existing precinct, click **Edit** in one of the following locations:
 - In the row corresponding to the desired precinct in the Precincts view
 - In the Info view of the desired precinct

ClearDesign displays the Basic tab of the Precincts dialog (Figure 4-35).

The screenshot shows the 'Precinct: 05 (Eastern Clear County)' dialog box. At the top right are 'Save', 'Reset', and 'Cancel' buttons. Below the title bar are two tabs: 'Basic' (selected) and 'Districts'. The 'Basic' tab contains the following fields:

- Name:** 05 (Eastern Clear County) (highlighted with a blue border)
- Short Name:** 05 (East...r County)
- Import ID:** (empty text box)
- Precinct Type:** Standard (dropdown menu)
- Languages:** ☒ Spanish ☒ Vietnamese ☒ English US
- Sort Seq:** 50
- Abbreviation:** County
- Export ID:** (empty text box)

Figure 4-35. Precincts dialog, Basic tab

2. If necessary, edit the following common attributes:

- | | |
|-----------------------|--------------------|
| ◦ Name | ◦ Sort Seq |
| ◦ Short Name | ◦ Import ID |
| ◦ Abbreviation | ◦ Export ID |

See "Common attributes of entities" on page 34.

3. In **Languages**, uncheck any languages that are not needed for this precinct.
4. In **Precinct Type**, select Standard or Consolidated.

The Standard **Precinct Type** is the default. Use Standard except in special cases.

The Consolidated **Precinct Type** reduces the number of printed ballot styles in specific situations by lumping a copy of all existing splits in other precincts into a new consolidated precinct. This arrangement enables printing of the ballots for the consolidated precinct "by style." The trade-off is the inability to report voter turnout by precinct.



You cannot change the **Precinct Type** after saving the precinct settings.

Setup of consolidated precincts

When using consolidated precincts, assign them a unique ballot set to allow for ballots printed by style within the consolidated precinct than for each split.

ClearCount reports lump all consolidated ballots under the consolidated precinct. Therefore, the ballots cannot be filtered across geography.

The summary of voter turnout in ClearCount includes the consolidated precinct ballots in the total. At the precinct level, the consolidated precinct ballots will not appear because they lack geographical assignments.

5. For a standard precinct, select the **Districts** tab.

6. Select the districts for the precinct.

Figure 4-36. Precinct dialog, Districts tab

7. Click **Save**.

4.5.3 Managing voter counts

This topic describes how to manage voter counts.

Also, see "Tracking registration counts by split" on page 117.

Displaying voter counts

To display voter counts, click **Voter Count** from the Precincts view.

ClearDesign displays the VoterCount dialog (Figure 4-37).

	Nonpartisan	Democratic	Republican	Libertarian
Precinct 1 10	500	499	365	20
Precinct 2 10	550	388	323	35
Precinct 3 10	489	358	361	50

Figure 4-37. Voter Count dialog

To clear voter counts, click **Clear All** and **Save**.

Importing voter counts

To import voter counts:

1. From the **Precincts** view, click **Import Voter Counts**.

ClearDesign displays the Import Voter Counts dialog.

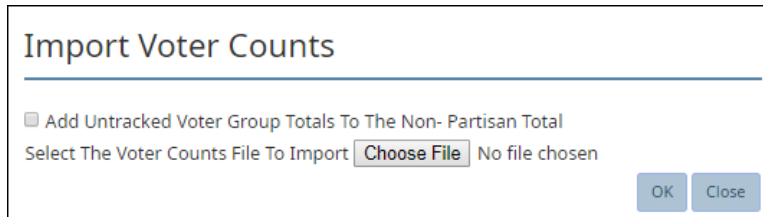


Figure 4-38. Import Voter Counts dialog

2. (Optional) Check **Add untracked Voter Group totals to the Nonpartisan total**.

Some jurisdictions have voter registration files that include party registration for both major and minor parties. Only major parties normally get dedicated ballots in primary races, but the jurisdictions still have minor party voters registered as belonging to a partisan party. This checkbox allows jurisdictions to conglomerate those parties without endorsed contests into the nonpartisan total to make sure that the voter registration totals are correct.

3. In **Select The Voter Counts File To Import**, browse to and select the file.
4. Click **OK**.

Exporting voter counts

Precincts export voter counts for the following reasons:

- To update the voter registration file as a CSV file
- To convert data to the supported format so it can be reimported with different values

To export voter counts:

1. From the **Precincts** view, click **Export Voter Counts**.

ClearDesign displays the Export Voter Counts dialog (Figure 4-39).

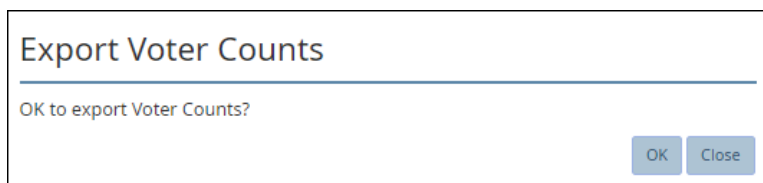


Figure 4-39. Export Voter Counts dialog

2. Click **OK**.

4.6 Splits

This topic describes how to manage splits, which are also called *precinct splits*.

4.6.1 Split identifiers

Split identifiers are relative ballot sequence numbers for ballot styles used within a precinct. ClearDesign performs the sequencing. Users can choose between displaying split names or relative numbers at the bottoms of ballot pages. Formats are:

- General elections: *PrecinctId.BallotStyleIdWithinPrecinct*
- Primary elections: *PrecinctId.PartyId.BallotStyleIdWithinPrecinct*

In a primary election, the total number of Party IDs is one more than the number of parties to allow for nonpartisan choices.

4.6.2 Displaying a Splits view

ClearDesign provide two classes of splits views:

- A view of all splits in an election

To display this view:

1. From the Administration menu, select the desired election.
2. From the Election menu or Elections view, select **Precincts**.
3. From the Precincts view, click the Splits tab.

- A view of the splits of an individual precinct

To display this view:

1. From the Precincts view, click the Name cell of the desired Precinct.
2. When the Info tab of the precinct appears, click the Splits tab.

Figure 4-40 below shows a Splits view that lists all splits of a precinct. The Splits view of an election has a similar appearance but does not contain an **Add** button.

Info Splits Districts Contests Ballots Logs						
Add		Search:		Copy	PDF	Excel
				CSV	Print	Show / hide columns
	Sort Seq	Name	Precinct	Districts Count	Contests Count	Ballot Groups Count
Edit	10	01-center (Madison City Center) 10	01 (Greater Madison City Area)	4	11	1
Edit	20	01-north (Northern Madison City Area) 20	01 (Greater Madison City Area)	3	9	1
Edit	30	01-west (outside of Madison City Limits) 30	01 (Greater Madison City Area)	3	9	1

Figure 4-40. Splits view of a precinct

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Precinct, Precinct Sort Seq, Districts Count, Districts, Contests Count, Contests, Ballot Groups Count, and Ballot Groups.

Click **Show / hide columns** to select which columns appear in this view.

4.6.3 Adding or editing splits

To add a split to a precinct or edit a split:

1. Select one of the following options:
 - To edit an existing split from the view of all splits in an election:
 1. From the Election menu, select **Precincts**.
 2. When the Precincts view appears, click the Splits tab.
ClearDesign displays a view of all available splits in the election.
 3. From the Splits view, click the **Edit** button in the row corresponding to the desired split.
 - To edit an existing split from the Splits view for an individual precinct:
 1. Display the Info tab for a precinct by expanding **Precincts** in the Election menu and clicking the name of an individual precinct or clicking the **Name** cell for an individual Precinct in the Precincts view.
 2. When the Info tab for the Precinct appears, click **Add Split**.

ClearDesign displays the Split dialog (Figure 4-41 below).

Figure 4-41. Split dialog

2. If necessary, edit the following common attributes:

- | | |
|-----------------------|--------------------|
| ◦ Name | ◦ Sort Seq |
| ◦ Short Name | ◦ Import ID |
| ◦ Abbreviation | ◦ Export ID |

See "Common attributes of entities" on page 34.



Clear Ballot recommends a unique abbreviations for each split. If the abbreviations are not unique, ballot generation appends _1, _2, and so on to ballot IDs.

3. In **Precinct**, select the required precinct.
4. In **Languages**, uncheck languages that are not required.
5. Select the **District** tab.
6. Check all districts required for the split.
7. Click **Save**.

4.6.4 Associating splits with a language

You associate a split with a language to generate a ballot for that language for any applicable ballot sets for the split.

To associate splits with a language:

1. From the navigation pane, choose **Languages**.
The **Languages** view appears.
2. Locate the language you want to associate with splits.
3. Click the **Edit** button to the desired language.
ClearDesign displays the Languages dialog.
4. Select the **Splits** tab.
5. Select (check) each split that you want to associate with the language.
Unchecked splits are *not* associated with the language.
6. Click **Save**.

4.6.5 Tracking registration counts by split

To track registration counts by split:

1. From the navigation pane, choose **Precincts**.

ClearDesign displays the **Precincts** view (Figure 4-34 on page 109).

2. From the main pane, select the **Splits** tab.

3. Click the **Edit** button for the split.

ClearDesign displays the Split dialog (Figure 4-41 on page 115).

4. Select the **Registration** tab.



Registration tracking must be enabled for the tab to be visible. If necessary, see "Adding or editing a voter group" on page 101 for instructions.

5. For any entity in the **Voter Group** column, increase or decrease the headcount in the **Registration Count** column.

6. Click **Save**.

Also, see "Managing voter counts" on page 112.

Chapter 5. Developing elections

The definition for any election consists of the following components:

- Contests and choices
- Headers
- Vote center categories and individual vote centers, and required device types and counter groups

Before you develop elections, set up jurisdictional information, such as languages, voter groups, precincts, districts, and splits. See "Developing election templates" on page 76.

5.1 Restoring an election from a backup

Before you restore an election from a backup Zip file, make sure that:

- The backup Zip file is available on your hard drive or USB drive.
- The backup filename ends in **-backup.zip**.
- You know the validation code or can get it from your system administrator.

To restore an election:

1. From the **Elections** tab, click **Restore**.

ClearDesign displays the Restore Election dialog (Figure 5-1 below).

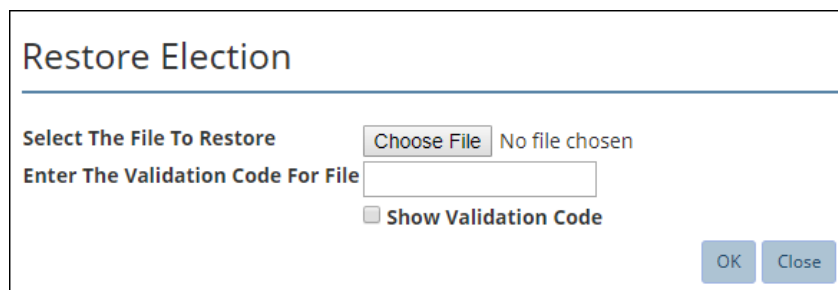


Figure 5-1. Restore Election dialog

2. Click **Choose File** and navigate to the location of the desired backup.
3. (Optional) Select (check) **Show Validation Code** to display the characters as you type them in **Enter The Validation Code For File**.
4. In **Validation Code**, enter the code used to back up the election.

5. Click **OK**.

ClearDesign displays a confirmation message (Figure 5-2).

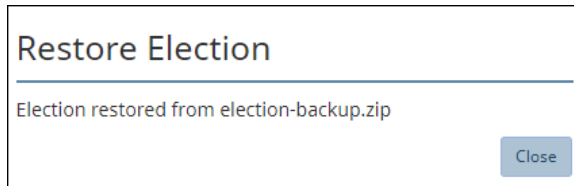


Figure 5-2. Confirmation message after restoring an election

6. Click **Close**.

The restored election appears on the Elections view in the order of the most recent sort.

7. If the name of the restored election has the same name as another election, assign a unique name.

5.2 Contests

This topic describes how to manage contests.

5.2.1 Displaying a Contests view

ClearDesign displays two types of Contests views:

- A view of all contests in an election

To display this view, take one of the following actions:

- From the Election menu, click **Contests**.

or

- Follow these steps:

1. From the Election view, click the **Name** cell for the desired election.
2. When the Info tab for the desired election appears, click the Contest tab that appears between the Precincts and Headers tabs.

- A view of contests endorsed by a specific voter group

To display this view, do the following:

1. From the Election menu, select Voter Group.
2. When the Voter Group view appears, click the Name cell of the desired voter group.
3. When the Info tab of the desired voter group appears, click the Contests tab that appears next to the Info tab.

ClearDesign displays a Contests view that is similar to Figure 5-3.

Contests Candidates									
Add Delete		Search:		Copy	PDF	Excel	CSV	Print	Show / hide columns
	Sort Seq	Name	Contest Type	District	Voter Groups	Vote For	# Cand		
☒	10	Madison City County Judge (Single Precinct and Write-in)	Candidate	Madison City Circuit Judge		Non-Partisan	1	8	
☐	20	County Parks Board (Choose 2 out of 8 n/m)	Judges Initials	Jurisdiction Wide		Non-Partisan	2	8	
☐	21	Northern Clear County Judge	Candidate	Northern Clear County Judge		Non-Partisan	1	5	
☐	22	Southern Clear County Judge	Candidate	Southern Clear County Judge		Non-Partisan	1	4	
☐	23	Eastern Clear County Judge	Candidate	Eastern Clear County Judge		Non-Partisan	1	3	
☐	30	Retain Judge William S. Clark (Retention)	Retention	Madison City Limits Proper (not greater area)		Non-Partisan	1	2	
☐	40	Recall Rep. (y/n followed by vote)	Recall	Jurisdiction Wide		Non-Partisan	1	2	
☐	45	Recall Subsequent Vote (Precinct Rotation)	Candidate	Jurisdiction Wide		Non-Partisan	1	4	
☐	50	Representative To The United States Congress (write-in only)	Candidate	Jurisdiction Wide		Non-Partisan	1	1	
☐	60	U.S. Fed. Senator Vote (Single Vote - Precinct Rotation)	Candidate	Jurisdiction Wide		Non-Partisan	1	5	
☐	70	President of the United States (cross-voting)	Candidate	Jurisdiction Wide		Non-Partisan	1	3	

Figure 5-3. Contests view—all contest in an election (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Contest Type, District, VoterGroups, Vote For, Contest Rotation, #Cand, Candidates, Pref Contest, SPrtY Contest, Recall Contest, Warn Overvote, Warn Undervote, and Warn Blank Vote.

Click **Show / hide columns** to select which columns appear in this view.

Actions buttons available from the Contests view

Table 5-1 lists the action buttons available from the Contests view.

Table 5-1. Action buttons available from the Contests view

Button	Description
Add	"Adding or editing contests" on the next page.
Delete	To delete contests: 1. Select the check boxes of the contests that you want to delete. 2. Click Delete.

Candidates tab

See "Displaying a Candidates view" on page 135.

5.2.2 Adding or editing contests

Select one of the following options:

- To create a new contest, click **Add** from the Contests view.
- To edit the settings of an existing contest, click the **Edit** button in one of the following locations:
 - In the row corresponding to the desired contest in the Contests view
 - In the Info view of the desired contest

ClearDesign displays the Contest dialog appears with the Basic tab selected by default (Figure 5-4 below).

Contest: Madison City County Judge (Single Precinct and Write-in)

Save Reset Cancel

Basic Layout

Name: Madison City County Judge (Single Precinct and Write-in)

Short Name: Madison ...rite-in))

Import ID:

Contest Type: Candidate

District: Madison City Circuit Judge

Contest Rotation: No Rotation

Recall Contest: No Recall

Warn Overvote: Inherit

Warn Undervote: Inherit

Warn Blank Vote: Inherit

Ballot Text: Spanish Vietnamese English US

Record TTS Play Stop Delete Source: tts

Formats A B I U

Madison City Clear County Judge

Vote for one

p

Figure 5-4. Contest dialog, Basic tab

Editing the Basic tab of a contest

To edit the basic tab of a contest:

1. If necessary, edit the following common attributes:
 - **Name**
 - **Short Name**
 - **Abbreviation**
 - **Sort Seq**
 - **Import ID**
 - **Export ID**

See "Common attributes of entities" on page 34.

The **Short Name** of a contest must be unique.

Controlling contests (Straight Voter Group or Primary Preference) must have lower **Sort Seq** values than the contests they control. This requirement is validated.

2. In **Contest Type**, choose from the selections listed in Table 5-2 on the next page.

Table 5-2. Guidelines for selecting the Contest Type

Contest type	Purpose	Prerequisites
Candidate	(Default) A standard contest where a voter select one or more candidates for an office depending on value of the Vote For field.	N/A
Question	A question or measure with only Yes and No options. ClearDesign automatically adds the Yes and No choices as candidates.	N/A
Retention	Similar to a Question with a Yes option. ClearDesign automatically adds a single Yes choice. You can manually add a No choice it is appropriate for your jurisdiction.	N/A
Recall	Similar to a Question with a Yes option. ClearDesign automatically adds a single Yes choice as a candidate. You can manually add a No choice if it is appropriate for your jurisdiction.	N/A
Primary Preference	For this Contest Type, the contests of multiple parties and Nonpartisan contests appear on a single ballot. The voter can choose which party's contests to vote in. This selection designates the controlling contest for a primary preference contest. ClearDesign automatically creates choices corresponding to each partisan voter group (political party) and the Nonpartisan voter group than can endorse candidates. After you create this contest, the Pref Contest drop-down appears on the Basic Contest tab for the Candidate contest type.	At least two voter groups must exist in the election that can endorse contests. ClearDesign does not support primary preference contests with cross-endorsed candidates.

Table 5-2. Guidelines for selecting the Contest Type (continued)

Contest type	Purpose	Prerequisites
Straight Voter Group	This is the "controlling contest" where a voter chooses their party for straight party voting. Votes will be assigned to choices on contests controlled by this contest according to the rules of the straight party type selected. After you create this contest, the SPty Contest drop-down appears on the Basic tab of each Candidate contest. See "Setting up straight party contests" on page 129.	The Straight Party Type must be set appropriately in the main Election Information tab. The Cross-Endorse Type field of the Election dialog must be set to "None" or to "On Ballot for each Voter Group". A single candidate entry cannot be associated with multiple parties when straight party voting is used.
Judge's Initials	Used if a box for judge initials is a required (or optional) feature on the ballot. The contest creates a single default choice with a line for the initials; more choices can be created. If judge initials are required, the default behavior is to reject the ballot if no judge initials are found on the ballot. The values of Warn Undervote and Warn Blank Vote must be Reject. If judge initials are optional, do not use Reject as the values of Warn Undervote and Warn Blank Vote. Use any other available value for these fields (Inherit, Warn, No).	N/A

If you select a **Contest Type** of Primary Preference or Straight Voter Group, ClearDesign displays an additional tab that lists their controlled contests.

For straight party elections and open primaries, Clear Ballot recommends that jurisdictions edit device messages to suit their specific requirements and circumstances.

- Fill in the remaining fields on the Contests dialog according to Table 5-3 on the next page.

The remaining fields that appear in the Contest dialog depend on the **Contest Type** that you selected.

Table 5-3. Contest-specific fields of the Contest dialog

Field	Description
Vote For	Select the number of candidates that voters can choose according to the voting rules for the contest. Applies to Contest Type: Candidate and Judge's Initials.
Autogenerate Write-ins	Select if applicable. This option creates a number of write-in candidates equal to the vote rule when you save the contest. If you select this option before adding other candidates, the write-ins have lower sequence numbers and will appear on the ballot. You can change the sequence number of each write-in candidate individually. Applies to Contest Type: Candidate and Retention
District	Select the applicable district. Applies to Contest Type: Candidate
Voter Groups	Select the political party applicable to the contest. Applies to Contest Type: Candidate, Question, Retention, Recall.
Pref Contest	Select No Primary Preference or select the name of the Primary Preference contest if you want primary preference rules to apply to the current contest. The Pref Contest field appears only if you have previously created a Primary Preference contest.
Contest Rotation	Select one of: No Rotation, Precinct Rotation, or District Rotation. Precinct Rotation means that the rotation of candidates occurs every time a new precinct when producing ballots The candidates move by one position. The integer value for rotation order: The value 0 does not rotate. The value 1 or higher rotates in a group. If you select No Rotation, the card and card style are equivalent. Applied to Contest Type: Candidate

Table 5-3. Contest-specific fields of the Contest dialog (continued)

Field	Description
Rotation District Category	Select Jurisdiction Wide or a particular district. This field appears only when Contest Rotation = District Rotation. For district rotation, the list of candidates rotate on each district of the district category.
St Pty Contest	Select No Straight Voter Group or select the name of the Straight Voter Group contest if you want Straight Voter Group rules to apply to the current contest. The St Pty Contest field appears only if you have selected a Straight Party Type for the election and have added a controlling type. Applies to Contest Type: Candidate
Recall Contest	Select No Recall or select a recall contest from the list. Applies to Contest Type: Candidate
Warn Undervote	Select one of: Inherit, Warn, No, or Reject
Warn Overvote	For a Contest Type of Judge's Initials, select Warn Undervote = Reject and Warn Blank Vote = Reject if judge initials are required for the ballot to be valid.
Warn Blank Vote	

- (Optional) In the **Ballot Text** editor, edit and format the text associated with the contest.

Examples

- For a **Contest Type** of Candidate, the Ballot Text is the name of the office, such as "President of the U.S."
- For a Contest Type of Question, the Ballot Text can be a referendum decision, such as: Proposition 101: Shall the budget of the Parks Board be increased by \$2,000,000 to construct a fire-prevention facility?"

Text entry and formatting in the Ballot text editor

Text entry and formatting options in the Ballot Text editor are similar those in word processing applications. For details, see "Ballot Text editor" on page 49.

Inherited default formatting in the Ballot Text editor

Any formatting in the ballot text editor overrides any inherited formatting according to the following precedence:

1. The Ballot Text editor inherits formatting from the **Layout Style** field value specified for the first ballot set listed in the ballot sets view.
2. The Layout tab of the current entity overrides the formatting inherited from the **Layout Style** field of the first ballot set.
3. Any local formatting in the Ballot text editor of the current entity overrides the formatting specified in the Layout tab of the current entity.

Language tabs in the Ballot Text editor

The Ballot text editor has one tab for each language in the election. By default, languages other than English inherit their formatting from the English tab. You can use the language tabs to customize the text and formatting according to language.

If you add languages to an election, Clear Ballot recommends that you do so after all English ballot text is stable.

See "Adding languages and changing language settings" on page 88

Editing the Layout tab of a contest

Before you use the Layout tab, make sure that you understand how the formatting of ballot text is inherited. See "Inherited default formatting in the Ballot Text editor" above.

To edit contest layouts:

1. Select the **Layout** tab (Figure 5-4).

Figure 5-5. Contest dialog, Layout tab

2. Configure contest-specific layout options as follows:
 - a. (Optional) In **Num Columns**, select the number of columns to span on the ballot.
 - b. (Optional) In **Candidate Columns**, select the number of columns for candidates or choices to span within the contest.

- c. (Optional) In **Candidate Rows**, select the amount of space to insert between candidates or choices.
3. Edit the Default Style section of Contest dialog.
The Default Style section has tabs where you can customize some settings according to the languages in the election.
4. When you complete editing the contest, click **Save**.

5.2.3 Endorsing contests by voter group

When working with primary elections, it is often important to associate contests with one or more voter groups. Associating a contest with more than one voter group is called *multi-party contest endorsement*.

In open primaries, where all contests appear on the same ballot, a jurisdiction may want to endorse contests belonging to a particular voter group so that the contests are affected by a corresponding header.

For example, suppose that a jurisdiction wants the following arrangement on a ballot:

- Column 1— Democratic contests
- Column 2—Republican contests
- Column 3—Nonpartisan contests

In this situation, the jurisdiction imports the contests into ClearDesign in a mixed sequence. To obtain the desired column arrangement, the jurisdiction can endorse the contests by their respective voter groups.

When applying a contest header endorsed by a particular voter group across all these contests, only the contests belonging to a particular voter group move into the corresponding header's column. Thus, a jurisdiction can sort mixed voter-group endorsed contests into different columns by using this method.

In closed primaries, a jurisdiction may want each voter group to have a separate ballot. If the option **Separate Voter Group Ballots** is selected on the ballot set, the contests for a partisan voter group appears on the ballot corresponding to that voter group and not on other ballots.



Nonpartisan endorsed contests appear on all ballots. Use nonpartisan endorsed contests for measures that are not partisan-specific.

If a larger political party allows members of a smaller political party to vote on a ballot measure, the voter groups for both parties must endorse the contest. The major party must appear first in the voter-group sequence order. ClearCount reports only by the first endorsement on a given contest. Therefore, it is important for the larger party to have a lower sort sequence. Otherwise, the contest results get reported under the smaller party's results.

To endorse contests by voter group:

1. Ensure the required contests are created.
2. From the navigation pane, choose **VoterGroups**.

The VoterGroups view appears.

3. Click the **Edit** button for the voter group.

The Voter Group dialog appears.

4. Ensure **Endorse Contests** is clicked **On**.
5. Select the **Contests** tab (Figure 5-6).

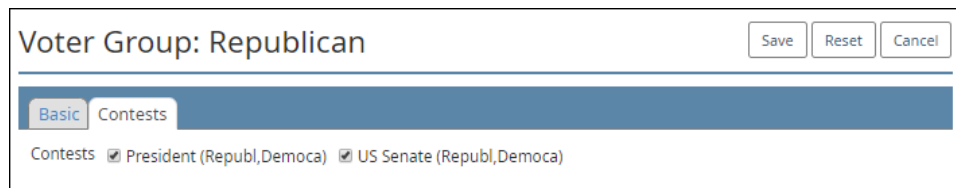
The screenshot shows a dialog box titled "Voter Group: Republican" with "Save", "Reset", and "Cancel" buttons in the top right. Below the title bar is a tabbed interface with "Basic" and "Contests" tabs. The "Contests" tab is selected and highlighted in blue. Under the "Contests" section, there are two checked checkboxes: "President (Republ, Democa)" and "US Senate (Republ, Democa)".

Figure 5-6. Vote Group dialog—Contests tab

6. Select all contests required for the voter group.
7. Click **Save**.

Alternatively, the nonpartisan voter group or one or more partisan voter groups can endorse a contest. To set the endorsements on a contest:

1. Go to the Contests view, locate the desired contest, and click the Edit button.
See "Displaying a Contests view" on page 119.
2. When the dialog for the desired Contest appears, select (check) the desired options in the **Voter Groups** field and click **Save**.

If a desired option does not appear in the **Voter Groups** field, edit the corresponding voter group to allow contest endorsements. You can then select that voter group as shown in Figure 5-6 or edit the contest.

If a contest is endorsed by multiple voter groups and contains non-partisan candidates, only the first party's endorsement will be applied to the candidates for the sake of reporting or determining straight party vote applicability. If multiple party endorsements for the sake of straight party voting or reporting are required, the non-partisan candidates must be endorsed specifically by all required parties.

5.2.4 Setting up straight party contests

This topic defines straight voting, describes its characteristics, and provides guidelines for setting up straight party contests.

What is straight party voting?

Straight party voting is the practice of allowing a voter to select all candidates endorsed by a specific voter group (political party) in an election. Depending on the requirements of the jurisdiction, a voter may be able to override the choices endorsed by a voter group for individual contests. Straight party contests are used for general elections.

Characteristics of straight party contests: dynamic and conditional

A straight party contest is dynamic because it gets automatically populated with the choices based on voter group options associated with a particular ballot style.

A straight party contest is also considered conditional:

- If a given ballot style does not contain candidates endorsed by a particular voter group, that voter group does not appear on the ballot style. However, that voter group appears on other ballot styles associated with that voter group.
- If no valid partisan voter groups appear on a given ballot, the straight party contest also does not appear on that ballot style because there are no options to select.

Guidelines for setting up straight party contests

Follow these guidelines to set up straight party contests:

1. Create an election from scratch or from a template.
2. Open the Election dialog and set the values for the following fields:
 - For **Straight Party Type**, select one of the available selections applicable to your jurisdiction.
See Table 4-2 on page 82.
 - In **Cross-Endorse Type**, make sure to select the option that aligns with the requirements of your jurisdiction.
See Table 4-3 on page 83.
3. Edit election entities according to the requirements of your jurisdiction and the remainder of this procedure.

4. Set up a controlling contest.

To set up a controlling contest:

- a. From the Contests view, click **Add**.
See "Adding or editing contests" on page 121.
- b. When ClearDesign displays the Contests dialog, assign a meaningful name such as: SP Controlling Contest.
- c. Fill in the common attributes and other fields to meet your requirements.
- d. In **Contest Type**, select Straight Voter Group.
The Straight Party Controlled Contests tab appears but remains unpopulated until you add the contests associated with the SP Controlling Contest.
- e. Click **Save**.
- f. In **Voter Groups**, select Nonpartisan.
- g. Click **Save**.

5. Set up the contests for each political office in the election.

To add an individual contest:

- a. From the Contests view, click **Add**.
- b. When ClearDesign displays the Contest dialog, assign a meaningful name to identify the contest.
- c. Edit the common attributes to meet your requirements.
- d. In **Contest Type**, select Candidate.
- e. In **Voter Groups**, select Nonpartisan
- f. In **SPTy Contest**, select the name of the controlling contest.
- g. Click **Save**.

6. For the contest representing each political office in the election, add a candidate endorsed by each voter group participating in that contest.

See "Adding or editing candidates" on page 136.

After you set up the controlling contest, the contests for each office, and the candidates for each contest, go to the Contests view and click the **Name** cell of the controlling contest. When ClearDesign displays the Info tab for the controlling contest, the Straight Party Controlled Contests section lists the individual contests as shown in Figure 5-7 on the next page.



Figure 5-7. Straight Party Controlled Contests section of Info tab of a controlling contest

If you click the **Edit** button on the Info tab of a controlling contest, ClearDesign displays the Contests dialog. On the Contests dialog, click the Straight Party Controlled Contests tab to edit the associated individual contests. Figure 5-8 shows an example.

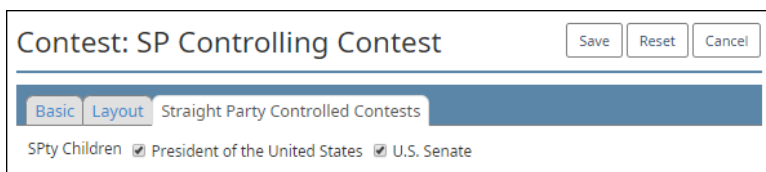


Figure 5-8. Example: Straight Party Controlled Contests tab of the Contests dialog

Conditions that invalidate cards for Straight Party contests

Certain changes affecting straight party contests invalidate some existing card layouts. When you try to save any of the following changes, ClearDesign issues a confirmation message and requires you to click **OK** to continue:

- Adding , changing, or removing a party on a controlling contest
- Changing any of the following on an individual straight party contest:
 - Adding a candidate
 - Changing the party affiliation (voter group) of a candidate
 - Changing the controlling contest (updating the **SPty Contest** field)

5.2.5 Guidelines for primary preference contests in ClearDesign

This topic provides some guidelines for primary preference contests based on the type of primary.

Open primaries

If your jurisdiction runs an open primary, Clear Ballot recommends setting up a primary preference contest to guard against cross-voting between political parties. (For implementation details and an example, see the next section "Setting up primary preference contests" on the next page.) *Cross-voting* occurs when a voter marks ovals for multiple parties in a primary race. Most jurisdictions disallow cross-voting and disqualify the entire ballot when it contains any cross-voted contests.

Closed or semi-closed primaries

If your jurisdiction runs closed or semi-closed primaries, follow these guidelines:

- When you set up the ballot set, select the **Separate Voter Group Ballots** check box.
ClearDesign generates a ballot for each voter group that includes contests endorsed by the voter group and any nonpartisan contests. The generated ballots include a ballot for the Nonpartisan voter group that unaffiliated voters receive.
- When you set up each voter group, select **Endorse Contests**.

Top-two primaries

The setup for a two-two primary is similar to a general election. All candidates of all parties appear as choices for a given contest. No special setup is necessary for top-two primaries.

5.2.6 Setting up primary preference contests

The primary preference functionality allows a jurisdiction to include the candidates of multiple parties for the same political offices on a single ballot for a primary election.

A primary preference contest entity links to partisan contests and controls them. First, you set up the primary preference contest and then link to it from the individual partisan contests. To set up the links, select the name of the primary preference contest in the **Pref Contest** fields of the individual partisan contests. ClearDesign then populates the controlling primary preference contest with the names of the controlled contests.

When casting a vote in a primary preference contest, a voter must specify a political party. Only choices for the selected party get counted. Choices for any other party are ignored. If the voter does not select a party for the primary preference contest, ClearCount or ClearCast detects a cross-voted ballot, rejects it as invalid, and indicates that it requires a review.

For example, suppose that a jurisdiction holds a primary election that includes races for the following political offices:

- President of the United States
- U.S. Senate

To set up this primary preference example, follow these guidelines:

1. Create an election from scratch or from a template.
For this example, suppose that the **Name** of the election is March 2019 Primary Preference.
2. Edit the election entities according to the requirements of your jurisdiction and the guidelines provided in the remainder of this procedure.
3. To meet the requirements for a primary preference election, make sure that you have defined at least two voter groups and that you have selected the **Endorse Contests** check box in the Voter Group dialogs.

See "Adding or editing a voter group" on page 101.

For this example, the election contains the following voter groups:

- Nonpartisan—The required default voter group that ClearDesign automatically creates.
- Republican
- Democratic

4. Set up the controlling contests for the primary preference election.

The controlling contest link the partisan contests for the same office.

To set up the controlling contests for this example:

- a. From the Contests view, click **Add**.
- b. When ClearDesign displays the Contest dialog, assign a meaningful **Name**, such as: Primary Preference Controlling Contest.
- c. Fill in the common attributes and other fields of the Contest dialog to meet your requirements.
- d. In the **Contest Type**, select the value Primary Preference.

The Party Controlled Contests tab appears but remains unpopulated until you add the contests controlled by the Primary Preference Controlling Contest.

- e. Click **Save**.

5. Set up a partisan contest associated with each voter group for each political office in the election.

(If you import data in a supported format when you create the election, you do not have to complete the manual setup described in the remainder of this step.)

To follow through with the example described earlier in this topic, suppose that a primary preference election includes races for President of the United States and the U.S. Senate. In this situation, set up two contests for President and two contests for U.S. Senate. The result will be the following contests:

- President of the President of the U.S.-Republican
- President of the President of the U.S.-Democratic
- U.S. Senate-Republican
- U.S. Senate-Democratic

For example, to set up the contest for president associated with the Democratic voter group:

- a. From the Contests View, click **Add**.

See "Adding or editing contests" on page 121.

- b. When ClearDesign displays the Contest dialog, assign a **Name** to identify the contest associated with a voter group such as: President of the U.S-Democratic.
- c. Fill in the common attributes and other fields to meet your requirements.
- d. In **Pref Contest**, select the name of the controlling contest.

In this example, select Primary Preference Controlling Contest.

- e. Select the voter group to associate with this contest.

In this case, select Democratic. This selection includes the contest on the Democratic partisan ballot and associates the contest with the headers for the Democratic party.

- f. Add the candidates to the contest.

See "Adding or editing candidates" on page 136.

To set up the remaining contests, use the previous steps as a guideline.

After you set up the controlling contest, partisan contests, and candidates associated with the contests, go to the Contest view and click the **Name** cell of the controlling contest Primary Preference Controlling Contest. When ClearDesign displays the Info tab for the Primary Preference Controlling Contest, the Primary Party Controlled Contests section shows the associated partisan contests as shown in Figure 5-9.



Figure 5-9. Example: Primary Party Controlled Contest section of an Info tab for a controlling contest

If you click the **Edit** button on the Info tab of a contest, ClearDesign displays the Contest dialog. On the Contest dialog, click the Primary Party Controlled Contests tab to edit the associated partisan contests. Figure 5-10 shows an example.

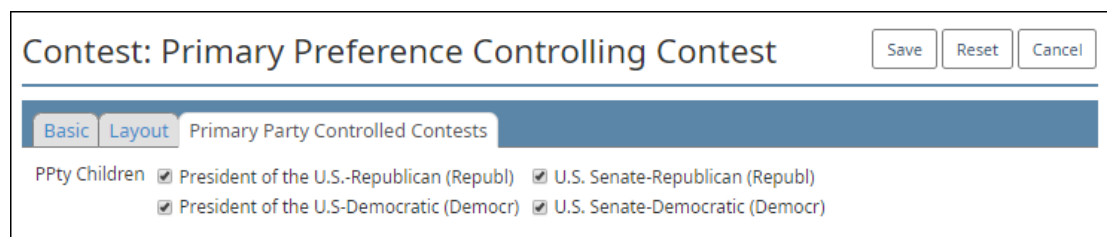


Figure 5-10. Example: Primary Party Controlled Contests tab of the Contests dialog.

5.3 Candidates

This topic describes how to manage candidates.

5.3.1 Displaying a Candidates view

ClearDesign provides three types of Candidates views:

- A view of all candidates in an election

To display this view:

1. From the Election menu, select **Contests**.
2. Click the Candidates tab next to the Contest tab in the content pane.

- A view of the candidates in a specific contest

To display this view:

1. From the Election menu, select **Contests**.
2. When the Contests view appear, click the **Name** cell for the desired contest.
3. When the Info tab for the select contest appears, click the Candidate tab that appears next to the Info tab in the content pane.

- A view of candidates affiliated with a specific voter group

To display this view:

1. From the Elections menu, select **Voter Groups**.
2. When the Voter Groups view appears, click the **Name** cell for the desired voter group.
3. When the Info tab for the selected voter group appears, click the Candidates tab that appears between the Contest and Voter Counts tabs.

Figure 5-11 shows an example of a view of all candidates in an election.



	Sort Seq	Name	Contest Type	District	Voter Group	Vote For	# Cand
Edit	5	Straight Voting	Straight Voter Group	Jurisdiction Wide	Non-Partisan	1	4
Edit	10	County Parks Board (Choose 2 out of 8 s/m)	Candidate	Jurisdiction Wide	Non-Partisan	2	8
Edit	20	Madison City County Judge (Single Precinct and White-in)	Candidate	Madison City Circuit Judge	Non-Partisan	1	7
Edit	21	Northern Clear County Judge	Candidate	Northern Clear County Judge	Non-Partisan	1	5

Figure 5-11. Candidates view—all candidates in an election (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Contest Type, District, VoterGroups, Vote For, Contest Rotation, #Cand, Candidates and Pref Contest.

Click **Show / hide columns** to select which columns appear in this view.

Action buttons available from a Candidates view

Table 5-4 lists the buttons available from a Candidates view.

Table 5-4. Buttons available from a Candidates view

Button	Description
Add	The Add button is available only from the view of all candidates in specific contest. See "Adding or editing candidates" below
Delete	To delete a candidate: 1. Select the check boxes in the rows corresponding to the candidates that you want to delete. 2. Click Delete.

5.3.2 Adding or editing candidates

To add a candidate to a contest:

1. Select one of the following options:
 - To add a candidate to an election:
 1. From the Contests view, click the Name cell of the contest where you want to add a candidate.
 2. When the Info tab for the contest appears, click **Add Candidate**.
 - To edit an existing candidate, click the **Edit** button in the row corresponding to the desired candidate from the Candidates view for the entire election or from the Candidates view for an individual contest.

ClearDesign displays the Candidate dialog

Candidate: Juan Garcia [Save] [Reset] [Cancel]

Name: Sort Seq:

Short Name: Abbreviation:

Import ID:

Contest: Export ID:

Voter Groups: Candidate Type:

Voter Group: Ballot Order: Rotation Group:

Ballot Text: Spanish Vietnamese English US

Source: tts

Juan Garcia

p

Figure 5-12. Candidate dialog

If the **Contest Type** is Question, Retention, or Recall, ClearDesign automatically creates **Yes** and **No** choices.

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

3. Edit the candidate-specific fields listed in Table 5-5.

Table 5-5. Candidate-specific fields

Field	Description
Contest	Select Straight Voting or a specific contest.
Candidate Type	Select one of the following: • Candidate is a votable choice related to the oval that appears beside it. • Write-in is where a voter can write a choice. • Label is used for informational purposes.
Voter Groups	Select a voter group. If Candidate Type is Write-in, the endorsement must be nonpartisan. ClearDesign does not allow partisan endorsement of write-in candidates. Specify the Ballot Order . If the candidate is cross-endorsed, click Add and enter the required values in Voter Groups and Ballot Order once for each additional cross-endorsement. Only the voter group with the <i>lowest</i> ballot order value is exported to the ballot definition file (BDF or BDFx).

4. (Optional) In the Ballot Text editor, enter and format text associated with the candidate.

Examples

The ballot text associated with a candidate is his or her name. For example, in the 2016 U.S. president, the ballot text for the Democratic candidate was "Hillary Clinton". The ballot text for the Republican candidate was "Donald Trump".

Text entry and formatting in the Ballot text editor

Text entry and formatting options in the Ballot Text editor are similar those in word processing applications. For details, see "Ballot Text editor" on page 49.

Inherited default formatting in the Ballot Text editor

Any formatting in the Ballot Text editor overrides any inherited formatting according to the following precedence:

1. The Ballot Text editor inherits formatting from the **Layout Style** field value specified for the first ballot set listed in the Ballot Sets view.
2. The Layout tab of the current entity overrides the formatting inherited from the **Layout Style** field of the first ballot set.
3. Any local formatting in the Ballot Text editor of the current entity overrides the formatting specified in the Layout tab of the current entity.

Language tabs in the Ballot Text editor

The Ballot text editor has one tab for each language in the election. By default, languages other than English inherit their formatting from the English tab. You can use the language tabs to customize the text and formatting according to language.

If you add languages to an election, Clear Ballot recommends that you do so after all English ballot text is stable.

See "Adding languages and changing language settings" on page 88.

5. Click **Save**.

5.4 Setting up headers

This section describes how to set up and manage headers. Headers are the main tool for formatting a ballot because they shape where contests appear based on their position settings.

5.4.1 Displaying the Headers view

The Headers view (Figure 5-13) is for managing non-contest text placed on the ballot, including titles, instructions, and separators.

Headers						
Add Delete		Search:		Copy	PDF	Excel CSV Print Show / hide columns
☐	Sort Seq	Name	Header Type	Voter Group	Ballot Set	
☐ Edit	1	VOTE BOTH SIDES	Card Header	Non-Partisan		
☐ Edit	2	VOTE BOTH SIDES	Card Footer	Non-Partisan		
☐ Edit	10	Clear County, Jefferson State General Election	Card Header	Non-Partisan		
☐ Edit	30	Voting Instructions	Card Header	Non-Partisan		

Figure 5-13. Headers view (default columns shown)

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Header Type, Voter Group, From Contest, To Contest, Location, Start Column, Num Columns, and Placement.

5.4.2 Header Type values

ClearDesign provides several types of headers as described in Table 5-6. You specify a **Header Type** value in the Basic view of the Header dialog when you set up a header as described in "Adding or editing a header" on page 141.

Note the following in Table 5-6:

- "Choose Ballot Set?" column
 - Yes—The specified **Header Type** requires you to indicate a **Ballot Set** to which the **Header Type** applies.
 - No—The **Ballot Set** field does not apply to the specified **Header Type** and does not appear on the Basic view of the Header dialog.
- "Applies to selected range of contests?" column
 - Yes—You must specify values in the **From Contest** and **To Contest** fields for the specified **Header Type**.
 - No—A range does not apply to this **Header Type**. The **From Contest** and **To Contest** fields do not appear on the Basic view for the specified **Header Type**.

- Header Types that begin with "Sample"

"Sample" headers apply to the sample ballot. The sample header entity types do not support layout options. You can change the text of "Sample" headers, but you cannot change the format.

Also see "Printing sample ballots" on page 225.

Table 5-6. Header Type values

Header Type	Purpose	Choose Ballot Set?	Applies to a selected range of contests?
Contest Header	Inserts a header box above the selected contests. A contest header often labels categories of contests, such as "Federal Offices", "Municipal Offices", or "Measures".	Yes	Yes
Contest Footer	Inserts a footer box below the selected contests. A contest footer often does the following: • Indicates the end of the ballot • Notifies the voter to continue voting on the next side of the ballot	Yes	Yes

Table 5-6. Header Type values (continued)

Header Type	Purpose	Choose Ballot Set?	Applies to a selected range of contests?
Card Header	Appears at the top of the card. The card header contains a label for the card. The card header can contain: - Logos for the jurisdiction - Election-title information - Any custom identifiers for the ballot	Yes	No
Card Footer	Appears at the bottom of the card. A card footer can contain: - Contact information for the voting office - Disclaimers - Notices to continue voting the next side of the ballot	Yes	No
Card Stub Top	Adds an additional field above the ballot's scannable area that requires longer paper sizes. The area containing the stub has a perforation to tear off before processing. A stub at the top of a card can contain: - ID barcodes - Other tracking information for the jurisdiction. Ballots that include top or bottom ballot stubs do not have any default margins. To include a margin, use the settings on the Layout tab of the Header dialog.	Yes	No
Card Stub Bottom	Similar to Card Stub Top but appears at the bottom of the ballot.	Yes	No
Sample Cover	If you add a Header Type of Sample Cover to an election, a cover page appears when you print a sample ballot in PDF and HTML formats.	No	No
Sample Filler	Modifies the empty-space message which appears on the sample ballot.	No	No

Table 5-6. Header Type values (continued)

Header Type	Purpose	Choose Ballot Set?	Applies to a selected range of contests?
Sample End	Adds a footer to the end of the sample ballot.	No	No
Sample Eligible	Displays text above each contest. Normally, indicates that a contest is eligible for voting. The Sample Eligible header type cannot be turned off.	No	No
Sample Header Continued	If a header is too long for one side of the sample ballot, this header modifies the custom message indicating that the content continues on the next side.	No	No
Sample Contest Continued	At the end of each column, a message appears notifying the voter that the contests continue in the next column.	No	No
Sample Next Column	At the end of each column, a message appears notifying the voter that the contests continue in the next column.	No	No
Sample Next Page	At the end of each side, a message appears notifying the voter that the ballot continues on the next side.	No	No

5.4.3 Adding or editing a header

To add or edit a header:

1. From the Election menu, select **Headers**.
2. When the Headers view appears, select one of the following options:

- To edit an existing header, follow one of these paths:

Path 1:

1. From the Headers view, click the desired **Name** cell.
2. When the Info tab for the selected header appears, click **Edit**.

Path 2:

From the Headers view, click the **Edit** button in the row corresponding to the desired header.

- To create a new header, click **Add** from the Headers view.

ClearDesign displays the Basic tab of the Header dialog (Figure 5-14).

Header: Header 10

Save Reset Cancel

Basic Layout

Name: Header 10

Short Name: Header 10

Import ID:

Header Type: Contest Header

From Contest: None

To Contest: None

Sort Seq: 10

Abbreviation: Head10

Export ID:

Voter Group: All

Ballot Set: All

Ballot Text: English

Record TTS Play Stop Delete Source: tts

Header 10

p

Figure 5-14. Header dialog, Basic tab

Editing the Basic tab of the Header dialog

To edit the Basic tab of the Header dialog:

1. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

2. In **Header Type**, select one of values listed in Table 5-6.

The default value for the **Header Type** field is Contest Header.

3. In **Voter Group**, select one of the options listed in Table 5-7.

Table 5-7. Header dialog—Voter Group selections

Selection for the Voter Group field	Description
All	Applies the header to all contests in the election.
Nonpartisan	Applies the header to nonpartisan contests in the election, such as referendum questions.
The name of a voter group	Applies the header to contests associates with the named voter group (political party).

In a closed primary, where each party (voter group) gets its own ballot, choosing Nonpartisan or a specific voter group makes the header appear only on that specific ballot.

To generate separate ballots for each voter group, you must also select the **Separate Voter Group Ballots** check box on Ballot Set dialog. See "Adding or editing a ballot set" on page 190.

For example, suppose that a closed primary election has Republican, Democratic, and Nonpartisan voter groups and **Separate Voter Group Ballots** is checked on the Ballot Set dialog. This election produces three ballots: Republican, Democratic, and Nonpartisan (for nonparty-affiliated contests such as referendum questions).

4. If the selected **Header Type** requires you to choose a **Ballot Set**, select one from the drop-down list.

The default is All, which applies the Header Type to all ballot sets.

5. If the **Header Type** is Contest Header or Contest Footer, select the following:
 - a. In **From Contest**, select the contest that precedes the header.
 - b. In **To Contest**, select the contest that follows the header.

If you do not set values for **From Contest** and **To Contest** for a Contest Header or Contest Footer, the header or footer does not display.

6. In the Ballot Text editor, enter and format the text associated with the header.

Examples

- A Contest Header can label a category of contests such as "Federal Offices".
- A Card Header can contain the logo of the jurisdiction and the name of the election such as "Clear County November 2019 General Election".

Text entry and formatting in the Ballot text editor

Text entry and formatting options in the Ballot Text editor are similar those in word processing applications. For details, see "Ballot Text editor" on page 49.

You can use macros to insert variables in the Ballot Text Editor. See "Using Macros" on page 65.

If you insert a table in the Ballot Text editor of a header, do not use any of the table-alignment properties. ClearDesign sets the table to match the width of containing header. Setting the table-alignment properties of a table in header can result in undesirable formatting of the printed ballot.

Inherited default formatting in the Ballot Text editor

Any formatting in the Ballot Text editor overrides any inherited formatting according to the following precedence:

1. The Ballot Text editor inherits formatting from the **Layout Style** field value specified for the first ballot set listed in the Ballot Sets view.
2. The Layout tab of the current entity overrides the formatting inherited from the **Layout Style** field of the first ballot set.
3. Any local formatting in the Ballot Text editor of the current entity overrides the formatting specified in the Layout tab of the current entity.

Language tabs in the Ballot Text editor

The Ballot text editor has one tab for each language in the election. By default, languages other than English inherit their formatting from the English tab. You can use the language tabs to customize the text and formatting according to language.

If you add languages to an election, Clear Ballot recommends that you do so after all English ballot text is stable.

See "Adding languages and changing language settings" on page 88.

Editing the Layout tab of the Header dialog

To edit the Layout tab of the Header dialog:

1. Click the Layout tab to select it.
2. Edit the fields at the top of the Layout tab as listed in the following table.

The fields that appear depend on the **Header Type** that you selected on the Basic tab of the Header dialog (Table 5-8).

Table 5-8. Layout tab of the Header dialog: fields that appear depending in the selected Header Type

Header Type	Fields that appear on the Layout view
Contest Header	Placement, Location, Start Column, Num Columns
Contest Footer	Contest Footer Pattern, Placement
Card Header	Placement, Start Column, Num Columns
Card Footer	Placement, Start Column, Num Columns
Card Stub Top	Placement, Height
Card Stub Bottom	Placement, Height

No fields appear at the top of the Layout view for the following **Header Type** values:

- Sample Cover
- Sample Filler
- Sample End
- Sample Eligible
- Sample Header Continued
- Sample Contest Continued
- Sample Next Column
- Sample Next Page

5.4.4 Setting voter groups in headers

For partisan ballots or contests, you can specify the voter group (or party) in the card or contest header or footer.

- If a card header or card footer specifies a voter group other than **All**, that header or footer is only placed on cards that are associated with that voter group. Therefore, specifying a voter group for card headers or footers only works when you are creating separate ballots.
- If a contest header or contest footer specifies a voter group, that header or footer is only attached to contests with the same voter group. This allows headers to be attached to a range of contests that have multiple voter groups and to filter the header on a specific voter group. If the header specifies the start column, then contests belonging to that voter group are placed in the specified column.



If contests from a given voter group need to move to the next side of the ballot to fit, the contests from the other voter groups will stay on their side until there is no more room for that voter group's contests.

5.4.5 Setting header column span

In the ClearDesign, contests and headers only occupy as many columns as are available. ClearDesign uses the **Start Column** and **Num Columns** settings to determine the position of header text relative to the number of columns on the ballot.

- For **Start Column**, if the value is greater than or equal to 1, the header will start in that column. If the value is 0, the header will be placed in the first available column that still has room (regardless of whether there is already text in the column).
- For **Num Columns**, the header will occupy up to that number of columns, but it will not use all columns if the number of columns available (per the card template) is less than the number of columns specified.

In the Figure 5-15, **Start Column** is set to 0, while **Num Columns** is set to 3. The card style specifies three columns.

Header: VOTE BOTH SIDES

Save Reset Cancel

Basic Layout

Location: Current Column Placement: Each Card

Start Column: 0 Num Columns: 3

Default Style

Font Name: Inherit Size: Inherit Background Color: []

Justify: Inherit Option: Inherit Text Color: []

Border: Top: Inherit Left: Inherit Bottom: Inherit Right: Inherit Color: []

Margin: Top: Inherit Left: Inherit Bottom: Inherit Right: Inherit Color: []

Padding: Top: Inherit Left: Inherit Bottom: Inherit Right: Inherit

Figure 5-15. Header Layout tab—Setting the column span

If there is already a header in column 1, ClearDesign will place this new header into column 2 and only use two columns. To display this header across three columns, change **Start Column** to 1 to move the header to the next row, where it can span the entire three columns.

5.4.6 Deleting headers

To delete a header:

1. From the **Headers** view, check the headers to delete.
2. Click **Delete**.
3. When the confirmation message appears, click **OK**.

5.5 Including images in headers

This section describes how to include images in headers.

5.5.1 Managing images

You can upload image files, such as party logos, signature facsimiles, and filled vote target illustrations, and then add them to ballot headers. You cannot create or modify images within ClearDesign.

ClearDesign supports all standard image file formats. However, for best performance, Clear Ballot recommends using JPEG and PNG files. Because of their large size, bitmap (.bmp) files can slow performance.

For details about adding images to headers, see "Adding images in the Ballot Text editor" on page 62.

5.5.1.1 Image included in ClearDesign

ClearDesign contains the following image:



Filled oval.png

System images such as `Filled oval.png` do not appear in the list of images provided by ClearDesign.

5.5.1.2 Best practices for using images

This section lists some best practices for using images in ClearDesign.

Positioning images with tables

Use tables in your header layout to position images and texts proportionally.

Figure 5-16 having **Name** BallotTitle. In this header, the ballot text editor contains a table consisting of a single row and three columns, sized at 15%, 70%, and 15%. Each table cell contains a portion of the header, such as the emblem, ballot title, and precinct ID.

Header: BallotTitle

Save Reset Cancel

Basic Layout

Name: BallotTitle Sort Seq: 10

Short Name: BallotTitle Abbreviation: Ballot

Import Id: Export Id:

Header Type: Card Header Voter Group: Non-Partisan

Ballot Text

English

Formats A A B I

table » tbody » tr » td

Figure 5-16. Using a table containing a single row to position the parts of a header

Sizing images

Since ClearDesign retains the original resolution of images, the processing time of generating and laying out ballots can slow down when multiple high resolution images appear on the same ballot. Smaller instructional images will benefit performance when the image size is around 20-40kb. Since these images are smaller, no visible degradation to image quality should appear.

To reduce the resolution of the image it is easiest to change the pixel width and height dimensions in programs such as Paint.

Do the following:

1. Right-click the image and select **Properties**.
Note the kB size of the image. If it is higher than 40kB, reduce the resolution of the image..
2. Open the file in Paint, and select **Resize**.
3. In the Resize and Skew window:
 - a. Select **Percentage**.
 - b. In the **Horizontal** and **Vertical** fields, select the correct percentage to reduce the current image size to 20-40kB range.
 - c. Select **Maintain Aspect Ratio**.
4. Click **OK**.

Avoiding header and footer overlap when the footer contains an image

Clear Ballot recommends the following practice to avoid the overlap of headers and footers:

1. Go to the Header dialog for the card footer.
2. In the Ballot Text editor, click to select the table cell containing the image.
3. In the toolbar of the Ballot text editor, click the table icon.
4. When the menu appears, select **Cell** and then **Cell Properties**.
5. In the Cell properties dialog:
 - a. Do not specify a value for **Width** and **Height**.
 - b. In the **H Align** field, select Left.
 - c. Click the Advanced tab and make sure that the Style field contains the string "text-align:left;".

5.5.2 Displaying the images view

To display the Images view, select one of the following options:

- From the Election menu, click Images.
- From the Info view of an election, click the Images tab.

Figure 5-17 shows an example of the Images view.



Images		
Add Delete Search: Copy PDF Excel CSV Print Show / hide columns		
	Sort Seq	Name
☐ Edit	10	sm-CB-Logo-Color-RGB.png
☐ Edit	20	2018-12-13_11-03-33.png

Figure 5-17. Images view

Selectable columns

Selectable columns include: Sort Seq and Name.

Action buttons available from the Images tab

Table 5-9 on the next page lists the action buttons available from the Images view.

Table 5-9. Action buttons available from the Images view

Button	Description
Add	See "Adding image files to an election" below.
Delete	To delete an image: 1. Select the check box in the row corresponding to the desired image. 2. Click Delete.

5.5.3 Adding image files to an election

To add an image file to an election:

1. From the Images view, click **Add**.

ClearDesign displays Image dialog (Figure 5-18).

Figure 5-18. Image dialog

2. Do as follows:
 - a. Click **Browse**.
 - b. Navigate to the desired image on your computer and select it.

For optimal performance, Clear Ballot recommends using images the 20 to 40 kB range. (See "Sizing images" on page 148.) If you navigate to and select an image that is 100 kB or larger, ClearDesign issues the following warning message (Figure 5-19).

Figure 5-19. Warning message when uploading an image that is 100 Kb or larger

- c. Click **Open**.

3. (Optional) In **Name**, modify the local filename.
4. (Optional) In **Sort Seq**, modify the sorting index.
5. Click **Save**.

5.5.4 Editing image files

Editing an image consists of changing its name or sort order or replacing the image file with another file. Changes to an existing image, apart from resizing it in the Ballot Text editor, must take place in a graphics tool outside ClearDesign.

To edit an image file:

1. From the **Images** view, click **Edit** for the image to modify.

The **Image** editor appears (Figure 5-20).

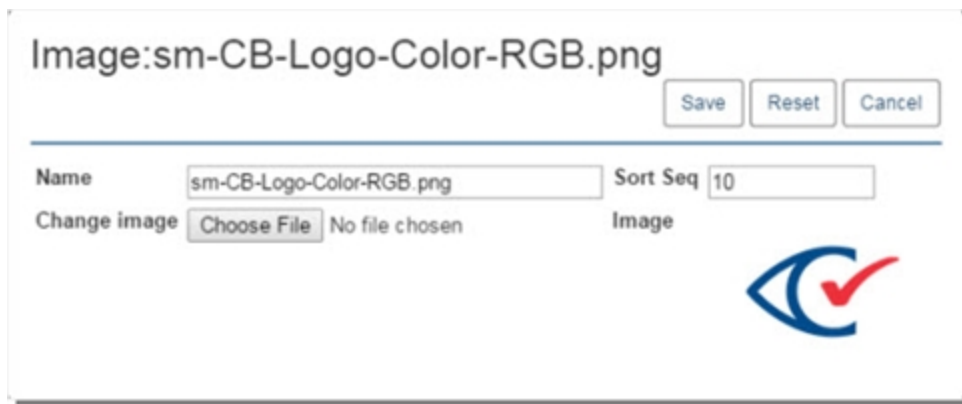


Figure 5-20. Image Editor

2. (Optional) In **Name**, modify the filename.
3. (Optional) Click **Choose File** to browse to and select the replacement file.

The text that appears in the dialog is browser-dependent.

4. (Optional) In **Sort Seq**, change the sort sequence.
5. Click **Save**.

5.5.5 Deleting image files

To remove an image file from the election:

1. From the navigation pane, choose **Images**.
2. In the row that contains the image you want to delete, click the checkbox.
3. Click **Delete**.
4. When the confirmation message appears, click **OK**.

5.6 Setting up vote center categories

This section describes how to set up vote center categories.

5.6.1 Displaying the Vote Center Categories view

To display the Vote Center Categories view, click the corresponding menu selection from the Election menu.

Figure 5-21 below shows an example of a Vote Center Categories view. This view shows two categories: Election Day and Early Voting. ClearDesign automatically creates the Election Day vote center category by default for each election.

Vote Center Categories						
Add Delete		Search:		Copy	PDF	Excel CSV Print Show / hide columns
	Sort Seq	Name	Vote Centers Count	Device Types Count	Counter Groups Count	
☐ Edit	10	Election Day	5	1	3	
☐ Edit	20	Early Voting	5	1	3	

Figure 5-21. Vote Center Categories view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, and Last Edit Time, Vote Centers, Vote Centers Count, Device Types, Device Types Count, Counter Groups, and Counter Groups Count .

Click **Show / hide columns** to select which columns appear in this view.

Action buttons available from the Vote Center Categories view

Table 5-10 lists the action buttons available from the Vote Center Categories view.

Table 5-10. Action buttons available from the Vote Center Categories view

Button	Description
Add	See "Adding or editing a vote center category" on page 157.
Delete	To delete a vote center category: 1. Select the check boxes in the rows corresponding to the vote centers that you want to delete. 2. Click Delete.

Additional tabs available from the Vote Center Categories view

Table 5-11 list the additional tabs available from the Vote Center Categories view.

Table 5-11. Additional tabs available from the Vote Center Categories view

Tab	Description
Vote Centers	Displays a view of all vote centers in an election. See the next section.
Device Types	Displays a view of all device types in an election. See "Device Types view" on page 155.
Counter Group	Displays a view of all counter groups in an election. See "Counter Groups view" on page 156.

5.6.2 Displaying a Vote Centers view

ClearDesign provides two types of Vote Centers views:

- A view of all vote centers in an election

To display this view:

- a. Display the Vote Center Categories view.
- b. Click the Vote Centers tab.

- A view of all vote center in specific vote center category

To display this type of view:

- Display the Vote Center Categories view.
- Form the Vote Center Categories view, click the **Name** cell of a vote center category.
- When ClearDesign displays the Info tab for the desired vote center category, click the Vote Centers tab.

When you create a new election from scratch, no vote centers are present. You must add one vote center before you can generate election media.

Figure 5-22 show example of a view of all vote centers in an election.

Vote Center Categories Vote Centers Device Types Counter Groups					
Delete		Search:		Copy	PDF
		Excel	CSV	Print	Show / hide columns
☐	Sort Seq	Name	Vote Center Category	Precincts Count	
☐ Edit	10	Precinct 1	Early Voting	1	
☐ Edit	10	Precinct 1	Election Day	1	
☐ Edit	20	Precinct 2	Early Voting	1	

Figure 5-22. Vote Centers view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, and Vote Center Category.

Action buttons available from the Vote Centers view

Table 5-12 below lists the action buttons available from the Vote Centers view.

Table 5-12. Action buttons available from a Vote Centers view

Button	Description
Add	The Add button is available only from the view of all vote centers in a specific vote center category. See "Adding or editing vote centers" on page 159.
Delete	To delete a vote center: 1. Select the check boxes in the rows corresponding to the vote centers that you want to delete. 2. Click Delete.

5.6.3 Device Types view

Use the **Device Types** view (Figure 5-23) to edit the device types in an election.

ClearDesign supports the following device types:

- The paper-tabulation products ClearCount and ClearCast use the **Paper Scanner** device type.
- ClearAccess uses the **Accessible Marker** device type.

When you create an election, ClearDesign sets up one of each by default. Both are unconfigured. This section describes how to configure both these devices.

Figure 5-23 shows the Device Types view. This view shows the default paper scanner and accessible marker for a newly created election.

Vote Center Categories Vote Centers Device Types Counter Groups								
Search:				Copy	PDF	Excel	CSV	Print
Show / hide columns								
	Sort Seq	Name	Device Class	Media Date	Media Version	Media Copy	Media Hash	
Edit	10	Paper Scanner	Paper Scanner					
Edit	20	Accessible Marker	Accessible Marker					

Figure 5-23. Device Types view

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Device Class, Media Type, Media Version, Media Copy, and Media Hash.

ClearDesign stores the status of a device type in four system-generated fields listed in Table 5-13. These fields remain blank until you export the election to a BDF or BDFx.

Table 5-13. Media fields for a device type

Field	Description
Media Data	Date and time of the export.
Media Version	Version identifier, starting with 1. This number only increments with the next download if the data in the election has changed. (This includes changes to items such as ballots styles, card layouts, contests, or candidates.)
Media Copy	Number that increments with each download of the media file, regardless of whether the data in the election has changed.
Media Hash	Field that changes when any of the following are modified: • Election identity (name or date) • Card IDs or positioning

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Device Class, Media Type, Media Version, Media Copy, and Media Hash.

See also "Configuring device types" on page 162.

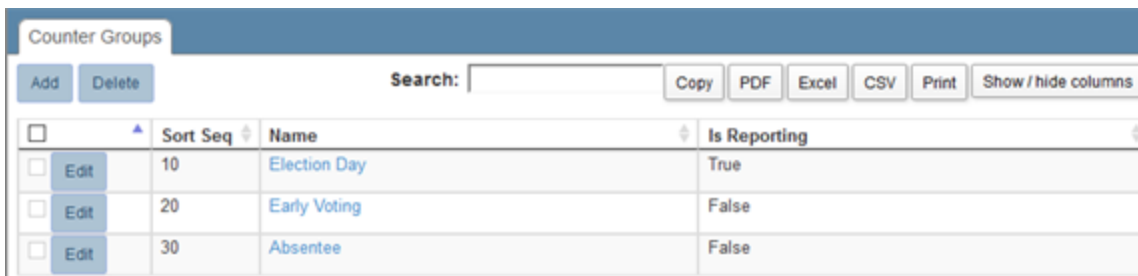
5.6.4 Counter Groups view

A counter group is a group of voters identified by code so their votes can be reported separately. The number and names of counter groups can vary by jurisdiction.

ClearDesign automatically creates three counter groups for each election:

- Election Day (ED)
- Early Voting (EV)
- Absentee (AB)

The **Counter Groups** view (Figure 5-24) manages groups of voters whose subtotals can be reported.



	Sort Seq	Name	Is Reporting
☐ Edit	10	Election Day	True
☐ Edit	20	Early Voting	False
☐ Edit	30	Absentee	False

Figure 5-24. Counter Groups view (default columns shown)

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, and Is Reporting.

See "Adding or editing a counter group" on page 167.

5.6.5 Adding or editing a vote center category

To add or edit a vote center category:

1. From the Election menu, select **Vote Center Categories**.
2. When the Vote Center Categories view appears, do one of the following:
 - To edit an existing vote center category, follow one of these paths:

Path 1:

- a. From the Vote Center Categories view, click the desired **Name** cell.
- b. When the Info tab for the select vote center category appears, click **Edit**.

Path 2:

From the Vote Center Categories view, click the **Edit** button in the row corresponding to the desired vote center.

- To create a new vote center category, click **Add** in the Vote Center Categories view.

The Vote Center Category dialog appears (Figure 5-25).

Figure 5-25. Vote Center Category dialog

3. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

4. Edit the fields specific to vote center categories described in Table 5-14.

Table 5-14. Fields specific to vote center categories

Field	Description
Autocreate Vote Centers	Select this check box to create a vote center automatically for any precinct that does not already have a vote center associated with it. Each vote center category is treated independently. If a precinct is used by a vote center in a different vote center category, but not by the one being currently autogenerated, it still generates a vote center.
Devices	By default, ClearDesign provides one device for each vote center. You can edit the Device Type and Ballot Set values associated with this device, but you cannot delete it. To add devices, do the following: 1. Click Add to append a row. 2. In Device Type, select one of: Paper Scanner or Accessible Marker. 3. In Ballot Set, select All or the name of a specific ballot set.
Counter Groups	Select the appropriate check boxes to associate counter groups with the current vote center category.

5. Click **Save**.

Multiple ballot sets and vote center categories

If your election has multiple ballot sets, make sure to set the **Ballot Set** values in each Vote Center Category dialog correctly. You can create multiple instances of a **Device Type** to cover multiple ballot sets if you want to include more than one (but not all) ballot sets. Figure 5-26 on the next page shows an example. In this example, the **Device Type** Accessible Marker is associated with Ballot Set 20 and Ballot Set 30.

Ballot sets not included in any vote center category are unavailable in ClearAccess for the **Device Type** Accessible Marker or ClearCast for the **Device Type** Paper Scanner.

Vote Center Category: Election Day Save Reset Cancel

Name Sort Seq

Short Name Abbreviation

Import ID Export ID

Auto Create Vote Centers ☒

Devices

Add

Delete	Device Type	Accessible Marker	Ballot Set	Ballot Set 20
Delete	Device Type	Accessible Marker	Ballot Set	Ballot Set 30
Delete	Device Type	Paper Scanner	Ballot Set	All

Counter Groups ☒ Election Day ☒ Early Voting ☒ Absentee

Figure 5-26. Example: multiple ballot sets associated with Device Type Accessible Marker

5.6.6 Deleting vote center categories

To delete a vote center category:

1. From the **Vote Center Categories** view, check the vote center categories to delete.
2. Click **Delete**.

If the vote center category is the default entity, you cannot delete it from the election.

3. When the confirmation message appears, click **OK**.

5.6.7 Adding or editing vote centers

When you create a new election from scratch, no vote centers are present. You must add one vote center before you can generate election media.

To add a vote center to a vote center category:

1. Do one of the following:
 - To edit an existing vote center:
 - a. From a Vote Centers view, click the Name cell of the desired vote center.
 - b. When ClearDesign displays the Info tab for the vote center, click **Edit**.

- To add a new vote center:
 - a. Display the Vote Center categories view.
 - b. From the Vote Center categories view, click the Name cell for the desired vote center.
 - c. When ClearDesign displays the Info tab for the selected vote center, click **Add Vote Center**.

ClearDesign displays the Vote Center dialog (Figure 5-27 below).

Figure 5-27. Vote Center dialog

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

3. Specify the **Number of Devices**.

See "The number of devices associated with each vote center" below.

4. In the Precincts section, select All Precincts or select the check boxes for each individual precinct that you want to add to the current vote center.

5.6.8 The number of devices associated with each vote center

The Vote Center dialog of ClearDesign enables you to specify the number of devices configured for each vote center in an election.

Why ClearDesign stores the numbers of devices associated with each vote center

Jurisdictions import elections defined in ClearDesign into ClearCount. When jurisdictions import election results into ClearCount, they must reconcile the number of devices programmed for an election with the number of devices specified for each vote center.

This arrangement ensures that a jurisdiction has not lost a USB drive containing data from a given scanner or failed to load the data.

Tracking of accessible markers is optional. A jurisdiction that tracks additional markers can print a report showing the number of devices sent to each location.

Storing the number of paper scanners in the BDF

When you export an election to a BDF, ClearDesign stores the number of paper scanners for each vote center in `votecenters.csv` file of the BDF. The field is called **NumPaperScanners**.

Paper scanners are equivalent to ClearCast units. Jurisdictions used the number of scanners value to confirm that they have accounted for all USB drives before certifying an election. If the number of ClearCast units or USB drives changes after the initial rollout of an election, update the number of paper scanners and export a new BDF. Then merge the BDF into ClearCount election to update the record of the expected number of paper scanners.

Specifying the number of accessible markers

Although you can specify the number of Accessible Markers in ClearDesign, the BDF does not currently store this value.

ClearDesign permissions associated with the number of device types

The following ClearDesign permissions enable an administrator to view and edit the number of devices:

- Vote Center Device Type-View
- Vote Center Device Type-Add
- Vote Center Device Type-Edit
- Vote Center Device Type-Delete

ClearDesign automatically enables these permissions for new administrators.

5.6.9 Adding or editing a vote center

To edit settings for a vote center:

1. From the **Vote Centers** view, locate the vote center.
2. Click the **Edit** button for the vote center.
The Vote Center dialog appears.
3. Modify settings as required.
4. Click **Save**.

5.6.10 Deleting vote centers

To delete a vote center:

1. From the **Vote Centers** view, check the vote centers to delete.
2. Click **Delete**.
3. When the confirmation message appears, click **OK**.

5.6.11 Configuring device types

This section describes how to configure the paper scanner and accessible marker device types.

5.6.11.1 Configuring a paper scanner device type

The paper scanner device type refers to ClearCount and ClearCast. To configure a paper scanner device type:

1. From the **Device Type** view, click **Edit** in the row corresponding to a paper scanner.

The Device Type dialog appears (Figure 5-28).

The image shows a 'Device Type: Paper Scanner Central' dialog box. It contains two columns of fields. The left column includes: Name (Paper Scanner Central), Short Name (Pap Scanner Central), Import ID (empty), Device Class (Paper Scanner), Election Password (masked), Pollworker Password (masked), Encryption Key ID (d08cfd11), Warn Overvote, Warn Undervote, Warn Blank Vote, Warn Blank Card, Print Zero Count (0), and Inactivity Timeout (120). The right column includes: Sort Seq (10), Abbreviation (Centra), Export ID (empty), Show Passwords (checkbox), Confirm Election Password (masked), Confirm Pollworker Password (masked), Reset Encryption Key (checkbox), Warn Straight Voter Group Overvote, Warn Primary Preference Overvote, Print Override (checkbox), Print Result Count (1), and Cancel Timeout (30). At the top right are Save, Reset, and Cancel buttons.

Device Type: Paper Scanner Central		Save	Reset	Cancel
Name	Paper Scanner Central	Sort Seq	10	
Short Name	Pap Scanner Central	Abbreviation	Centra	
Import ID		Export ID		
Device Class	Paper Scanner	Show Passwords	☐	
Election Password	*****	Confirm Election Password	*****	
Pollworker Password	*****	Confirm Pollworker Password	*****	
Encryption Key ID	d08cfd11	Reset Encryption Key	☐	
Warn Overvote	☐	Warn Straight Voter Group Overvote	☐	
Warn Undervote	☐	Warn Primary Preference Overvote	☐	
Warn Blank Vote	☐	Print Override	☐	
Warn Blank Card	☐	Print Result Count	1	
Print Zero Count	0	Cancel Timeout	30	
Inactivity Timeout	120			

Figure 5-28. Device Type dialog, central scanner selected

2. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

3. Edit the fields listed in Table 5-15.

Table 5-15. Fields for the Paper Scanner Device Type

Field	Optional, Req., Read only	Description
Device Class	Read only	Paper Scanner
Show Passwords	Optional	When selected, passwords appear in the Device Type dialog as you type them.
Election Password, Confirm Election Password	Required	The election password for ClearCount and ClearCast.
Pollworker Password, Confirm Pollworker Password	Required	The poll worker password for ClearCast.
Encryption Key	Read only	The key used to hash the encrypted BDFx file.
Reset Encryption Key	Optional	Select this check box to change the result of the encryption hash when you use the same password data for the device types.
The following Warn messages apply to ClearCast. When you select the check box associated with a given type of warning, ClearCast issues a warning when the applicable event occurs. You can also set warnings on individual contents. See "Adding or editing contests" on page 121.		
Warn Overvote	Optional	Issue a warning upon detecting an over vote
Warn Undervote	Optional	Issue a warning upon detecting an under vote
Warn Blank Card	Optional	Issue a warning upon detecting a blank card. You can enable the blank card warning only on the Device Type dialog. You cannot set this value for an individual contest.

Table 5-15. Fields for the Paper Scanner Device Type (continued)

Field	Optional, Req., Read only	Description
Warn Straight Voter Group Overvote	Optional	Issue a warning upon detecting an over vote for a straight party contest
Warn Primary Preference Overvote	Optional	Issue a warning upon detecting an over vote for a primary preference contest
Print Override	Optional	This field is not currently operational. It is reserved for future use.
Print Zero Count	Optional	The number of reports printed as the ClearCast unit boots. The reports should zero out all candidates and contests to show that no vote has been cast.
Print Result Count	Optional	The number of reports printed when the polls close.
Inactivity Timeout	Optional	This field is not currently operational; it is reserved for future use.
Cancel Timeout	Optional	This field is not currently operational; it is reserved for future use.

4. Click **Save**.

5.6.11.2 Configuring the accessible marker device type

An accessible marker type refers to ClearAccess. To configure the accessible marker device type for a vote center:

1. From the **Device Type** view, click **Edit** in the row corresponding to an accessible marker.

The Device Type dialog appears (Figure 5-29).

Device Type: Accessible Marker
Save Reset Cancel

Name	Accessible Marker	Sort Seq	20
Short Name	Accessible Marker	Abbreviation	Marker
Import ID		Export ID	
Device Class	Accessible Marker ▼	Show Passwords	☐
Election Password		Confirm Election Password	
Pollworker Password		Confirm Pollworker Password	
Voting Password		Confirm Voting Password	
Encryption Key ID	48807697	Reset Encryption Key	☐
Warn Undervote	☒	Warn Straight Voter Group Change	☐
Warn Blank Vote	☒	Print Ovals Only	☐
Sound On	☒	Cancel Timeout	30
Inactivity Timeout	120		

Figure 5-29. Device Type: Accessible Marker dialog

2. If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

3. Edit the fields listed in Table 5-16.

Table 5-16. Fields for the Accessible Marker Device Type

Field	Optional, Req., Read only	Description
Device Class	Read only	Accessible Marker
Show Passwords	Optional	When selected, passwords appear in the Device Type dialog as you type them.
Election Password, Confirm Election Password	Required	The election code used in ClearAccess to load the election ADFx.

Table 5-16. Fields for the Accessible Marker Device Type (continued)

Field	Optional, Req., Read only	Description
Pollworker Password, Confirm Pollworker Password	Required	The poll worker code for ClearAccess.
Voting Password, Confirm Voting Password	Required	The voter code for the ClearAccess election.
Encryption Key	Read only	The key used to hash the encrypted ADFx file.
Reset Encryption Key	Optional	Select this check box to change the result of the encryption hash when you use the same password data for the device types.
Warn Under Vote	Optional	Issue a warning upon detecting an undervoted contest
Warn Blank Vote	Optional	Issue a warning upon detecting an unvoted contest If Warn Blankvote and Warn Undervote are both checked, Warn Blankvote is used for <i>vote for 1</i> contests.
Warn Straight Voter Group Change	Optional	Issue a warning upon detecting an over vote for a straight party contest
Sound On	Optional	Enables audible sound
Print Ovals Only	Optional	This field is not currently operational; it is reserved for future use.
Inactivity Timeout	Optional	After this amount of inactivity on the ClearAccess unit, a pop-up window appears. This windows asks the voter if he or she wants to continue.
Cancel Timeout	Optional	ClearAccess logs the voter out after this amount of inactivity following an Inactivity Timeout message.

4. Click **Save**.

5.6.12 Adding or editing a counter group

To add or edit a counter group:

1. Do one of the following:
 - To add a new counter group:
 - a. From the Election menu, select **Vote Center Categories**.
 - b. From the Vote Center Categories view, select the Counter Groups tab.
 - c. When ClearDesign displays the Counter Group view, click **Add**.
 - To edit an existing counter group:
 - a. From the Election menu, select **Vote Center Categories**.
 - b. From the Vote Center Categories View, click **Edit** in the row corresponding to the desired counter group.

ClearDesign displays the Counter Group dialog (Figure 5-30 below).

The screenshot shows a dialog box titled "Counter Group: Election Day". At the top right are three buttons: "Save", "Reset", and "Cancel". Below the title bar, there are several input fields and checkboxes arranged in two columns. The left column contains: "Name" with the value "Election Day", "Short Name" with the value "Election Day", "Import ID" with an empty field, "Sets Precincts Reporting" with a checked checkbox, and "Vote Center Categories" with a checked checkbox and the text "Election Day". The right column contains: "Sort Seq" with the value "10", "Abbreviation" with the value "ED", and "Export ID" with an empty field.

Figure 5-30. Counter Group dialog

2. If necessary, edit the following common attributes:

◦ Name	◦ Sort Seq
◦ Short Name	◦ Import ID
◦ Abbreviation	◦ Export ID

See "Common attributes of entities" on page 34.

ClearCount uses the value of the **Abbreviation** field of a counter group in data presented by web reports and on target cards (which conventionally use two-character alphabetic codes). Inform Clear Ballot of all counter group abbreviations before your target cards are prepared.

3. (Optional) Select **Sets Precincts Reporting**.

The **Sets Precincts Reporting** check box affects the ClearCount PDF report headers and the "X precincts reported out of Y total" message on the ClearCount dashboard. The value X indicates the number of precincts that have scanned ballots, and the value Y indicates the total number of precincts.



In the count of reporting precincts, consolidated precincts are counted as a regular precincts.

Default values: The default **Sets Precincts Reporting** values for the three counter groups automatically created by ClearDesign are:

- Election Day (ED)—True
- Early Voting (EV)—False
- Absentee (AB)—False

Example 1: Suppose that **Sets Precincts Reporting** is true for a counter group that has scanned three regular precincts and one consolidated precinct. In this situation, the message on the ClearCount dashboard appears as "4 precincts reported out of 4 total".

Example 2: Suppose that Election 2 has Absentee and Election Day ballots. However, the jurisdiction considers only the Election Day ballots in the count of precincts that have scanned ballots.

For this election, the jurisdiction keeps the default value of true for the **Sets Precincts Reporting** check box of the Election Day counter group. No matter how many absentee ballots are scanned, ClearCount considers only Election Day ballots when displaying the number of precincts that have scanned ballots.

Example 3: A jurisdiction wants to include Election Day, Absentee, and Early Voting ballots when counting the number of precincts that have scanned ballots for Election 2.

For this election, all three corresponding counter groups must have a **Sets Precincts Reporting** value of true. Any precinct that scans a ballot in any of the three counter groups is counted in the "X precincts reported out of Y total" message.

If a precinct scans even a single ballot, it is counted in the "X precincts reported out of Y total" message.

4. Select at least one of the **Vote Center Categories**.
5. Click **Save**.

5.6.13 Deleting counter groups

To delete a counter group:

1. From the navigation pane, choose **Vote Center Categories**.
2. Select the **Counter Groups** tab.
3. For each counter group that you want to delete, click the checkbox **On**.
4. Click **Delete**.
The confirmation dialog appears.
5. Click **OK**.

Chapter 6. Developing ballots

This chapter describes how to generate and lay out ballots for defined elections.

6.1 Ballot generation, layout, and design

You can generate ballots and lay out cards for a fully defined election. You can modify the visual aspects of layout, such as ballot orientation, contest order, font size, and so on, without regenerating an election. Regeneration is required, however, if the content of an election is modified.

To allow you to prepare an election before all contests are known, ClearDesign permits generating ballots, laying out cards, printing cards, and creating BDF, BDFx, and ADFx files for splits without contests. ClearDesign issues and logs a warning message in these cases.

- Ballot group styles are the nonrotated version of ballot groups.
- Ballot styles are the nonrotated version of ballots.
- Card styles are the nonrotated version of cards.

Card styles in ClearDesign are equivalent to ballot styles in ClearCount.

6.1.1 Ballots

A ballot (Figure 6-1) is the collection of all contests to be decided in a particular election. A contest can refer to decision on a candidate for a particular office or the answer to a referendum

Ballots can be formatted on printed cards or sent to other output devices, such as accessible voting machines.

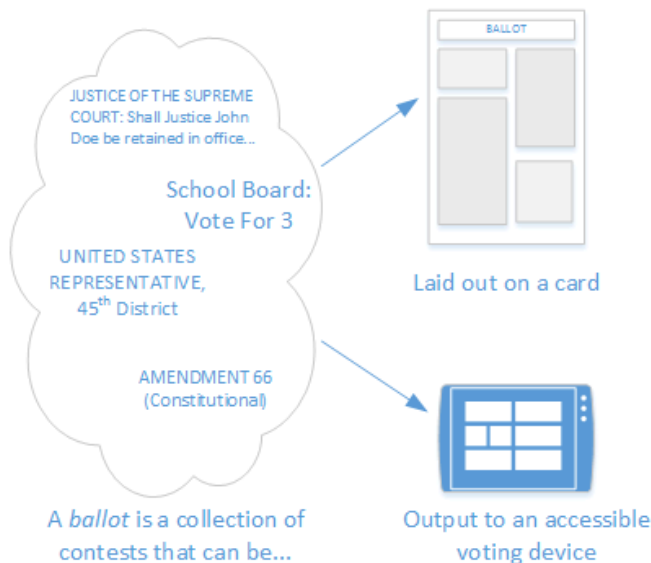


Figure 6-1. Ballots

ClearDesign generates ballots. You cannot add or delete ballots manually, but you can edit them if you have the appropriate permissions.

6.1.2 Ballot sets

A ballot set (Figure 6-2) is a group of ballots for a specific group of voters, such as Election Day, Absentee, or UOCAVA. (UOCAVA refers to the Uniformed and Overseas Citizens Absentee Voting Act, which governs absentee ballots for the military and other government officials.)

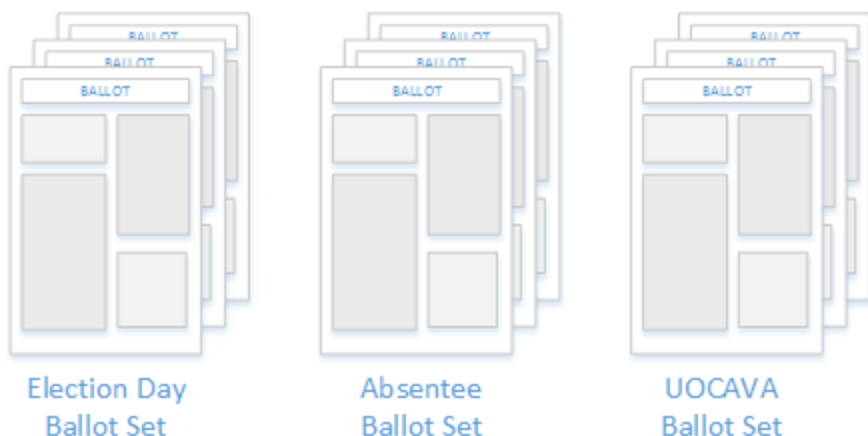


Figure 6-2. Ballot sets

ClearDesign uses ballot sets to generate, organize, and manage ballots. All ballot groups, ballot styles, and ballots roll up into a ballot set.

The majority of elections have

- One standard ballot set
- One accessible ballot set

You can create other ballot sets for voter groups that can only vote on a subset of the contests in the election, such as UOCAVA.

The abbreviation for the standard ballot set is STD. This abbreviation appears in the names of PDF and BDF files.

6.1.3 Ballot groups

A ballot group (Figure 6-3) is the set of ballots that resides within a split.

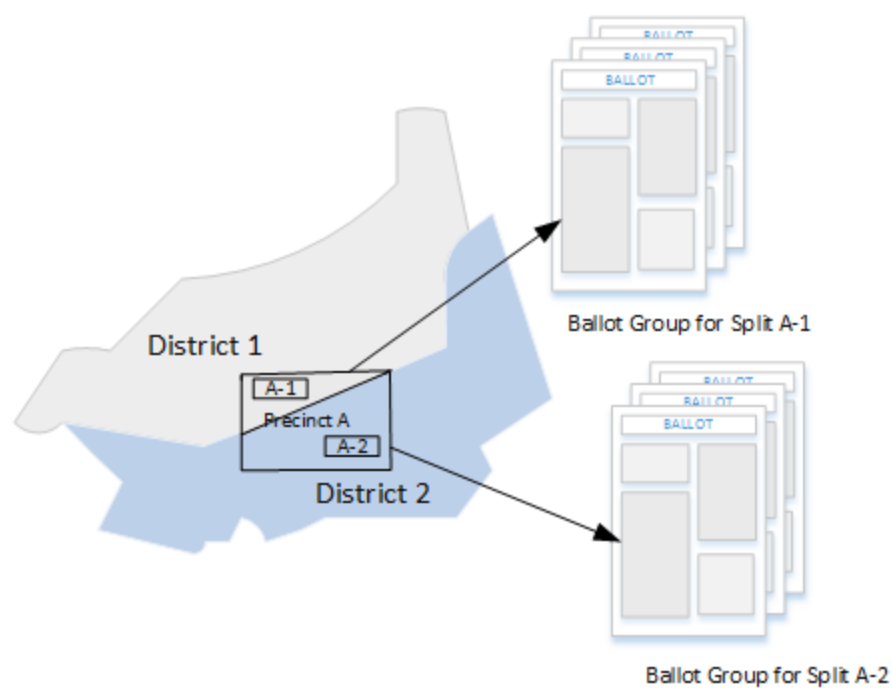


Figure 6-3. Ballot group

ClearDesign generates ballot groups. You cannot add or delete ballot groups manually, but you can edit them if you have the appropriate permissions.

6.1.4 Ballot styles

A ballot style (Figure 6-4) is the unique collection of card styles as seen by a voter. In a primary election, a ballot group might have separate ballot styles for Republican and Democratic voters.

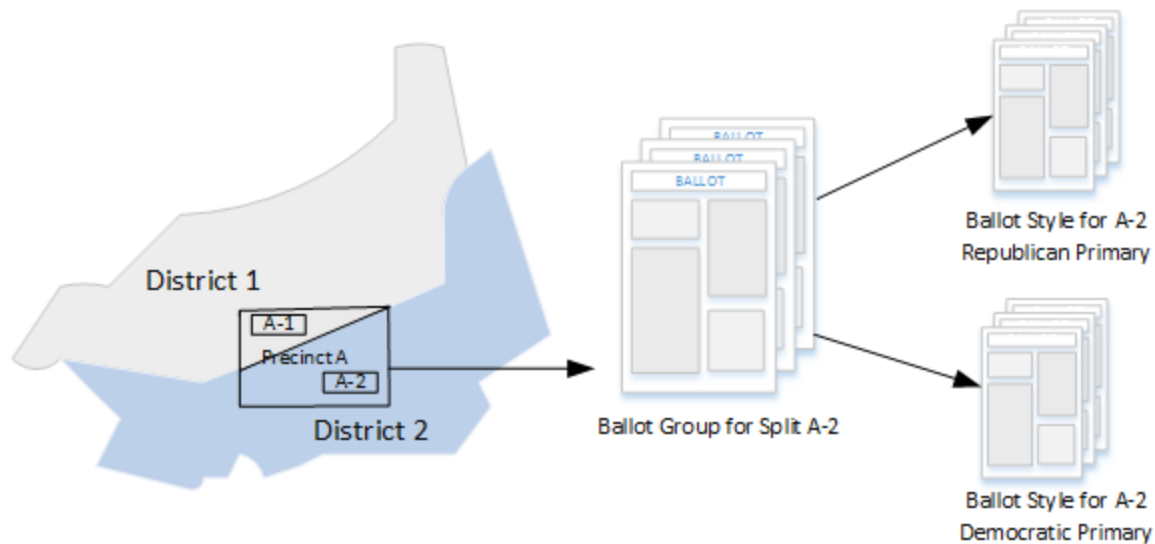


Figure 6-4. Ballot styles

Ballot styles are generated by ClearDesign. They cannot be added or deleted manually, but they can be edited by users with the appropriate permissions.

6.1.5 Card styles

A card style is the individual, nonrotated, version of a card.

ClearDesign generates card styles. You cannot add or delete card styles manually, but you can edit them if you have the appropriate permissions.

6.1.6 Cards

A card is the individual rotated version of card style as voted by an individual voter. The following figure shows the relationship between cards and card styles:

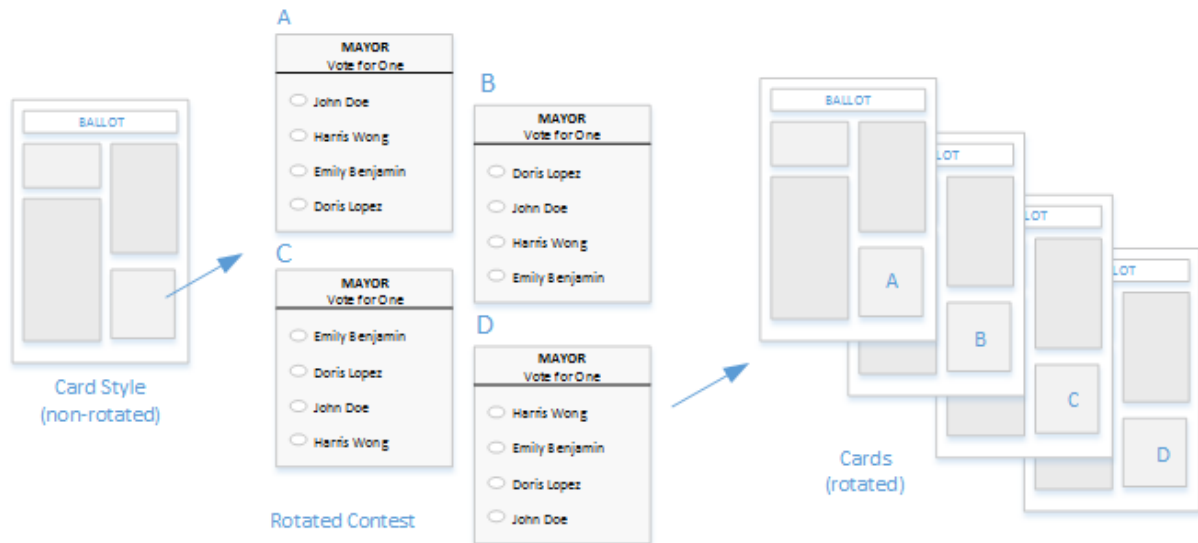


Figure 6-5. Cards

ClearDesign generates cards. You cannot add or delete cards manually, but you can edit them if you have the appropriate permissions.

6.1.7 Card templates

A card template determines the dimensions of the card, the number of columns on the front and back, the oval position, and the orientation. ClearDesign provides standard card templates. You can also add, modify, and delete user-defined card templates.

6.1.8 Layout styles

Layout styles are unified design themes that control the appearance of the final ballot.

ClearDesign contains two preconfigured layout styles:

- Color & Border
- Border

You can modify these layout styles or create user-defined layout styles.

Figure 6-6 and Figure 6-7 show examples of layout styles.

VOTE BOTH SIDES	
	OFFICIAL BALLOT FOR GENERAL ELECTION CLEAR COUNTY, JEFFERSON STATE June 21, 2015
01 (Greater Madison City Area)	
VOTING INSTRUCTIONS: Please use a black or blue ink only to mark the ballot. Completely fill in the oval provided to the left of your choice. Make no stray marks.	
OPTIONAL - STRAIGHT SLATE VOTING If you wish to vote along party lines, vote for one party below. ☐ Cyan Party ☐ Beige Party ☐ Magenta Party ☐ Teal Party JEFFERSON STATE OFFICES President of the Unified States Vote for one	FEDERAL OFFICES Representative To The United States Congress District 01 Write candidate name in Representative To the United States Senate

Figure 6-6. Example of Color & Border layout style

VOTE BOTH SIDES	
	OFFICIAL BALLOT FOR GENERAL ELECTION CLEAR COUNTY, JEFFERSON STATE June 21, 2015
01 (Greater Madison City Area)	
VOTING INSTRUCTIONS: Please use a black or blue ink only to mark the ballot. Completely fill in the oval provided to the left of your choice. Make no stray marks.	
OPTIONAL - STRAIGHT SLATE VOTING If you wish to vote along party lines, vote for one party below. ☐ Cyan Party ☐ Beige Party ☐ Magenta Party ☐ Teal Party JEFFERSON STATE OFFICES President of the Unified States Vote for one ☐ Samuel Brussels ☐ Henessy Vialkerton ☐ Martinia Lopez Cyan Party/Beige Party Cyan Party/Magenta Party Teal Party Madison City Clear County Judge Shall the people of Jefferson State recall Rep. Jonathan R.	FEDERAL OFFICES Representative To The United States Congress District 01 Write candidate name in Representative To the United States Senate Vote for one ☐ Christopher Williams ☐ Samantha Jones Cyan Party Beige Party

Figure 6-7. Example of Border layout style

Naming conventions for PDF files associated with splits

The naming conventions for PDF files associated with splits depend on the type of **Split Identifier** used for the ballot set. See Table 6-1.

Table 6-1. Naming conventions for PDF files—based on the Split Identifier setting

Split Identifier setting	Naming convention for the PDF file
Name	<i>Card ID-Precinct Name-Split Name(s)-Ballot Set Abbreviation-Voter Group Abbreviation-Language Abbreviation.pdf</i>
Ballot Sequence	<i>Card ID-Precinct Name-Ballot Sequence-Ballot Set Abbreviation-Voter Group Abbreviation-Language Abbreviation.pdf</i>

The subsections that follow provide additional details and examples.

Split Identifier—Name

When you choose "Name" for the **Split Identifier**, ClearDesign uses the precinct name plus the split name to identify your ballot PDFs. If the split name begins with the precinct name, ClearDesign lists the precinct name once in the naming convention and does not duplicate it.

If similar styles within a precinct are combined by choosing to print by precinct, ClearDesign uses the first applicable split name as the identifier for a given precinct and card style combination. See "Printing cards" on page 187.

The Card Information appears at the bottom of the PDF images. ClearDesign lists all applicable splits for the card in square brackets. ClearDesign allows a total of 40 characters for the combined split name and precinct names. If there are more splits that exceed the 40-character limit, ClearDesign appends '...' to the list to indicate that splits in addition to those listed apply to the card.

The card style also appears at the bottom of the card in the format (CS *CardStyleNumber*).

Split Identifier—Ballot Sequence

When you choose "Ballot Sequence" as the **Split Identifier**, ClearDesign uses the precinct name and a ballot sequence number to identify your ballots. Ballot sequence numbers increment (1, 2, 3, and so on) for every new card in a precinct. When ClearDesign calculates a new precinct, the sequence number increments—starting from 1 again—for every unique card style within the precinct.

When printing PDFs, only the option to print by "precinct" is enabled because this option does not support printing splits with duplicate styles. If one ballot set is defined as printing by Name and another by Ballot Sequence, regardless of the printing method selected for the Name ballot set, the Ballot Sequence ballot set always prints by "precinct."

A precinct can contain some splits with no contests. In this situation, ClearDesign assigns a sequence number for empty splits in that precinct to the first applicable split. The sequence number for the empty split does not appear among the printed cards. This situation can cause ballot sequences to skip a number when counting up.

Example: PDF files associated with splits

For example, suppose the following:

- Precinct name: 10
- Split name: 10-003

In this situation, the split information appears on the card information and in the title of the PDF file as:

10-003

Table 6-2 lists how the data from this example appears in the card information and in the PDF file name based on the selected type of **Split Identifier**.

Table 6-2. Example: Card information and PDF file name based on the selected type of Split Identifier

Selected type of Split Identifier	Card information	PDF file name
Name	10 [003] (CS 1)	1-10-003-STANDA-_NP_-EN.pdf
Ballot Sequence	10-1 (CS 1)	1-10-1-STANDA-_NP_-EN.pdf

Truncation occurs when the precinct name and split name match. If the two names differ, no truncation occurs.

6.2 Formatting ballot text and layout

ClearDesign provide several ways to modify the formatting of ballot text and layout. The recommended order is:

1. To set the appearance of ballot text and layout globally, start with a layout style.

ClearDesign provides two default layout styles:

- Color & Border
- Border

You can use these layout styles as-is or you can edit them to meet your needs. You can also create your own layout style.

In most cases, set up formatting in a layout style that covers all your requirements.

See "Editing layout styles" on page 213.

2. To adjustment the layout of a particular contest or header, use the **Layout** tab of the Contest or Header dialog.

See "Adding or editing contests" on page 121 and "Adding or editing a header" on page 141.

3. To adjust details of a particular entity, such as a line of header text, use the Ballot Text editor, located on the **Basic** tab of the item's dialog.

Formatting applied in the Ballot Text editor overrides formatting applied in either the **Layout** tab or the **Layout Styles** editor. Likewise, formatting applied in the **Layout** tab overrides that established in the layout style.

6.3 Setting up ballot sets

This topic describes how to set up ballot sets.

6.3.1 The workflow for creating ballots

The ballot-creation workflow is as follows:

1. Add an election.
2. Build the election by entering the jurisdictional information and the election definition.
3. If necessary, reset ballot styles to remove any previously generated ballots, cards, and card IDs.

See "Resetting ballot styles" on page 182.

4. From the **Ballot Sets** view, click **Generate**.

Generating ballots sets consists of identifying and correlating contests to splits and creating ballot styles.

5. From the **Ballot Sets** view, click **Layout**.

This is the stage in which ballots are laid out on physical cards to create card styles.

6. Preview and edit the ballots in the previewer, then repeat steps 3 and 4 as needed.

6.3.2 Displaying the Ballot Sets view

To display the Ballot Sets view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info tab for the selected election.
2. From the Info view of the election, click the Ballot Sets tab.

ClearDesign displays a Ballots Sets view that is similar to Figure 6-8.

Ballot Sets									
Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles									
Generate Reset Layout Print Sample Ballot Add Delete									
Search: Copy PDF Excel CSV Print Show / hide columns									
	Sort Seq	Name	Separate Ballots	Precinct Type	Card Template	Split Identifier	Layout Style		
Edit	10	Standard	False	Standard	8.5 x 11 - 3 Column	Name	Color & Border	1	

Figure 6-8. Ballot Sets view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Separate Ballots, Precinct Type, Card Template, Split Identifier, Layout Style, and Ballot Styles Count.

Action buttons available from the Ballot Sets view

Table 6-3 describes the action buttons available from the Ballot Sets view.

Table 6-3. Action buttons available from the Ballot Sets view

Button	See
Generate	"Generating ballot styles" on page 181
Reset	"Resetting ballot styles" on page 182
Layout	"Laying out card styles" on page 183
Print	"Printing cards" on page 187
Sample Ballot	"Printing sample ballots" on page 225
Add	"Adding or editing a ballot set" on page 190
Delete	To delete a ballot set: 1. From the Ballot sets view, select the desired ballot sets. 2. Click Delete. 3. When the confirmation message appears, click OK. You cannot delete the Standard ballot set.

The **Ballot Sets** view contains buttons to:

- Generate and reset ballot sets
- Add or delete ballot sets
- Lay out card styles
- Print cards

Additional tabs available from the Ballot Sets view

The following tabs are available from the Ballot Sets view (Table 6-4).

Table 6-4. Additional tabs available from the Ballot Sets view

Tab	See
Ballot Group Styles	"Setting up ballot group styles" on page 192
Ballot Groups	"Setting up ballot groups" on page 193
Ballot Styles	"Setting up ballot styles" on page 194

Table 6-4. Additional tabs available from the Ballot Sets view (continued)

Tab	See
Ballots	"Setting up ballots" on page 196
Card Styles	"Setting up card styles" on page 201
Cards	"Displaying the Cards view" on page 202
Card Templates	"Setting up card templates" on page 204
Layout Styles	"Layout Preview" on page 218

From the **Ballot Sets** view, a series of tabs link to other screens that allow you to control and preview all aspects of each card's appearance as described in Table 6-5.

Table 6-5. Tabs available from the Ballot Sets view

Tab	See
Ballot Group Styles	"Setting up ballot group styles" on page 192
Ballot Groups	"Setting up ballot groups" on page 193
Ballot Styles	"Setting up ballot styles" on page 194
Ballots	"Setting up ballots" on page 196
Card Styles	"Setting up card styles" on page 201
Cards	"Printing cards" on page 187
Card Templates	"Setting up card templates" on page 204)
Layout Styles	"Setting up layout styles" on page 206

6.3.3 Generating ballot styles

To generate a ballot style:

1. From the **Ballot Sets** view, click **Generate**.

The Generate Ballot Styles dialog appears.

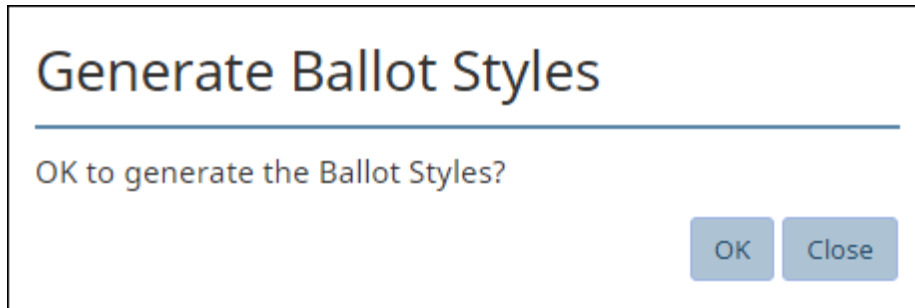


Figure 6-9. Generate Ballot Styles dialog

2. Click **OK**.

A status bar displays progress until the confirmation message appears. The message provides the count of generated ballot styles (Figure 6-10).

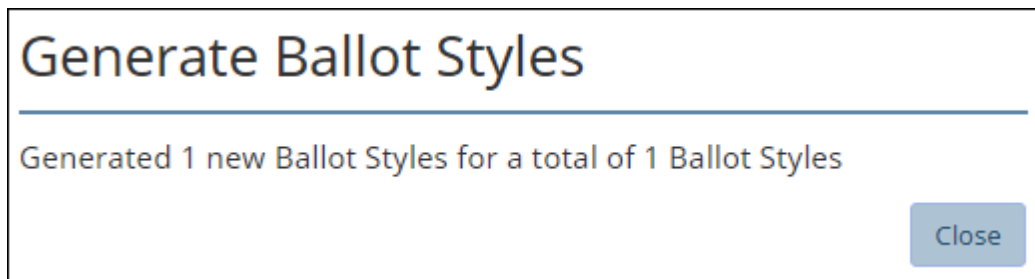


Figure 6-10. Generate Ballot Styles confirmation

ClearDesign creates ballot styles, but not cards, for all the contests for each split in the election. In turn, the **Layout** action generates the physical columns and cards to match.

Generating a ballot set is necessary only when you have added new or changed information for contests and candidates. If ClearDesign detects no changes when you click the **Generate** button, it displays the following message (Figure 6-11).

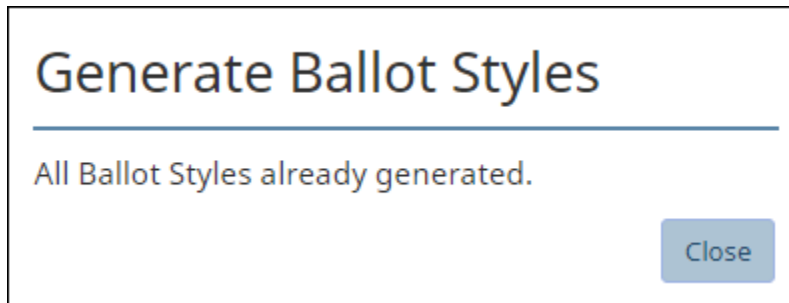


Figure 6-11. Ballot Styles already generated

3. Click **Close**.

6.3.4 Resetting ballot styles

To reset ballot style:

1. From the **Ballot Sets** view, click **Reset**.

The Reset Ballot Styles dialog appears.

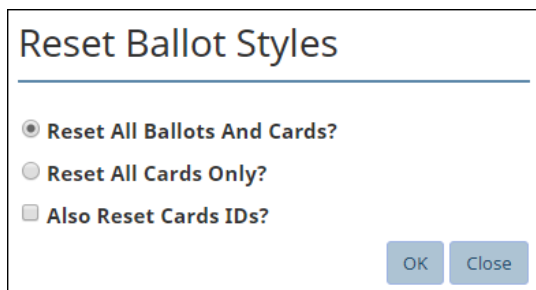


Figure 6-12. Reset Ballot Styles dialog

2. Choose one of the following:
 - **Reset all Ballot and Cards?**—Removes all previously generated ballot set information.
 - **Reset all Cards only?**—Removes card style information (created by clicking **Layout**) but not ballot style information (created by clicking **Generate**).

3. (Optional) Check **Also Reset Card IDs** to remove previously generated Card IDs and restart numbering at 1.

Do not reset card IDs if any cards are already sent for printing.

4. Click **OK**.

Resetting the ballot set removes previously generated information.

Resetting ballot sets invalidates previously generated BDFs, BDFxs and ADFxs.

If you regenerate an election that already exists in ClearCount or ClearAccess, make sure to do the following:

- a. Generate a new ADFx, BDF, and BDFx files in ClearDesign.
- b. Delete any existing data for the election in ClearCount and ClearAccess.
- c. Load the new BDF or BDFx into ClearCount and ClearCast and the new ADFx into ClearAccess.

Loading the new BDF, BDFx, and ADFx files removes all previous data for the election.

6.3.5 Laying out card styles

To lay out the card styles in a ballot set:

1. Ensure ballots are generated.
2. From the navigation pane, choose **Ballot Sets**.
3. Click **Layout**.

The Layout Card Styles dialog appears.



Figure 6-13. Layout Card Styles dialog

The message *All card styles already laid out* indicates that regeneration is required because the deletion of content removed some cards from the ballot set; however, none of the remaining cards were affected.

4. Click **OK**.

A status bar displays progress until the confirmation message appears. The message provides the count of generated card styles.

5. Click **Close**.

Ballot styles and ballot layout can change after the cards are laid out. These changes usually occur because ClearDesign displays previously unrendered macros. The card layout is more accurate and will be printed. If you generate the ballots, but do not lay out the cards, the layout may change.

Suppose that you manually change a layout in the Layout Preview window. If you then launch an automatic layout that can overwrite the manual change, ClearDesign issues a warning message.

6.3.5.1 The logic for card layout

This topic describes the logic that ClearDesign uses to lay out cards.

A header that specifies a start column and more than one column

Contests can wrap under a header that specifies a start column and more than one column.

For example, suppose the following:

- A header starts in column 1 and specifies two columns
- The associated contests are one column wide
- The contests are placed in column 1, then column 2, and then on the back of the card in column 1.

In this situation, ClearDesign attempts to start contests and their associated headers on the front of the card when they are attached to a header that specifies the column.

This arrangement may cause contests to appear out of order on the ballot. To remedy this situation, use the Layout Preview page to reposition the contest manually. For details, see "Layout Preview" on page 218.



If a contest is attached to more than one header that specifies a start column, ClearDesign uses the last header's start column.

Additional options when a header specifies a start column

If a header specifies a start column *and* one of the following:

- Next-column—Next column is ignored.
- Next-side—The header and associated contests are placed on the back of the ballot.
- Next-card—The header and associated contests are placed on the front of the next card.

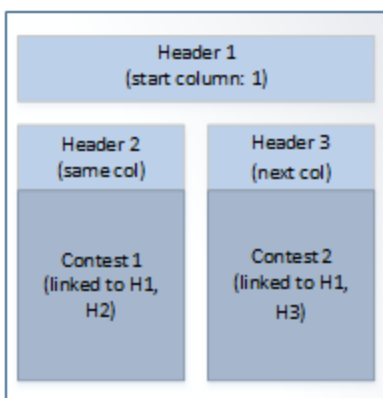
Linked contests

Another case involves a contest that is linked to:

- A header that specifies a start column
- A subsequent header that specifies a next column

In this case, the contest and subsequent header are placed in the next column after the specified column.

For example, if the first header specifies start column of 1, the second header and contest are placed in column 2. (If there is no column 2, they are placed on the next-side.)



Another case is a contest that meets the following criteria:

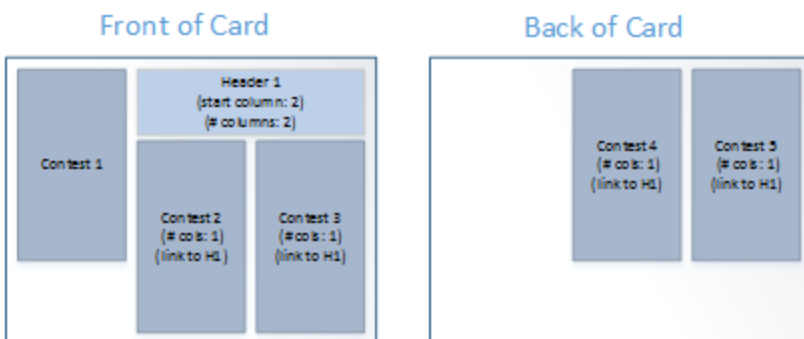
- The contest is not the first contest that specifies a start column
- The contest does not fit the specified column.

In this situation, the following logic applies:

- If the header that specifies the start column also specifies more columns than the contest specifies, the contest is placed in the next column, as long as it fits within the header's columns.

For example, if a header specifies two columns and the contests all specify one column, the contests are placed first in column 1 and then in column 2.

- If the contest does not fit beneath the header, it moves to the next side of the specified column.



6.3.5.2 Ballot layout control hierarchy

In the ClearDesign system, ballot layout control is hierarchical. Levels include:

1. Layout Style dialog—Provides base settings.
2. Layout tab of Contest dialog—Supersedes Layout Style settings.
3. Ballot Text editor—Supersedes Layout settings.

Level 1: Layout Style editor

Layout style controls the overall appearance of a ballot. See "Setting up layout styles" on page 206.

The screenshot shows the 'Layout Style: Color & Border' editor. At the top, there are 'Save', 'Reset', and 'Cancel' buttons. Below the title bar, the 'Name' field is set to 'Color & Border' and 'Sort Seq' is 10. The 'Voter Group Position' is 'Beside' and 'Voter Group Width' is 35. On the left, there is a list of 'Entity Styles' including 'Default', 'Header Default', 'Contest Default', 'Choice Default', 'Choice Party Preference', 'VoterGroup', and various 'Subheader' levels. The 'Entity Style Type' is set to 'Default' with 'Sort Seq' 5. The main area shows settings for 'Spanish' and 'Vietnamese' languages. For 'Vietnamese', the 'Font Name' is 'Noto Sans', 'Size' is 10, 'Justify' is 'Left', 'Background Color' is 'FFFFFF', 'Letter Spacing' is 'Normal', 'Line Spacing' is 1.0, 'Option' is 'Normal', and 'Text Color' is '000000'. Below these are settings for 'Border', 'Margin', and 'Padding' with 'Top', 'Left', 'Bottom', and 'Right' properties, each with an 'Inherit' dropdown and a 'Color' field.

Figure 6-14. Layout Style editor tab

Level 2: Layout editor

Each contest inherits style settings from the controlling layout. Any contest-specific style settings override inherited layout settings. See "Adding or editing contests" on page 121.

The screenshot shows the 'Contest: President of the Unified States (cross-voting)' dialog, 'Layout' tab. At the top, there are 'Save', 'Reset', and 'Cancel' buttons. Below the title bar, there are tabs for 'Basic' and 'Layout'. The 'Layout' tab is active. It shows 'Num Columns' as 1, 'Candidate Columns' as 1, and 'Rows Per Candidate' as 1. Below this, there is a 'Default Style' section with settings for 'Spanish' and 'Vietnamese' languages. For 'Vietnamese', the 'Font Name' is 'Inherit', 'Size' is 'Inherit', 'Justify' is 'Inherit', 'Background Color' is a color picker, 'Letter Spacing' is 'Inherit', 'Line Spacing' is 'Inherit', 'Option' is 'Inherit', and 'Text Color' is a color picker. Below these are settings for 'Border', 'Margin', and 'Padding' with 'Top', 'Left', 'Bottom', and 'Right' properties, each with an 'Inherit' dropdown and a 'Color' field.

Figure 6-15. Contest dialog, Layout tab

Level 3: Ballot Text editor

Local HTML in contest or header definitions overrides style settings inherited from the contest.

Contest: President of the Unified States (cross-voting) [Save] [Reset] [Cancel]

Basic [Layout]

Name: President of the Unified States (cross-votin) Sort Seq: 70
Short Name: President..s-voting) Abbreviation: (cross
Import ID: Export ID:
Contest Type: Candidate Vote For: 1 Auto Generate Write-ins: ☐
District: Jurisdiction Wide Voter Groups: ☒ Non-Partisan ☐ Cyan Party
Contest Rotation: No Rotation
Recall Contest: No Recall
Warn Over Vote: Inherit Warn Under Vote: Inherit Warn Blank Vote: Inherit

Ballot Text

Spanish Vietnamese

Record TTS Play Stop Delete Source: tts

President of the Unified States
Vote for one

p

Figure 6-16. Contest dialog, Basic tab, Ballot Text editor

6.3.6 Selecting the right ballot set options

The following distinctions apply when you are managing ballot sets:

- Generating ballot styles organizes the contest information for each split. It does not lay out physical cards.
- If you add or delete a contest or candidate, you need to regenerate the ballot styles.
- Laying out the card set creates the physical card images.
- If you make an editorial change that does *not* change the underlying contests or candidates, you must lay out the cards again, but you do not have to regenerate the ballot style. (Editorial changes include correcting typos, editing header text, changing the order of contests on the ballot, and so on.)

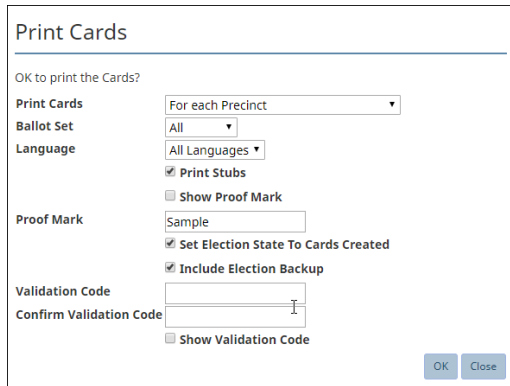
6.3.7 Printing cards

A **Print** button appears at the top of the Ballot Sets view. Clicking this button displays a dialog when you can select the options for generating a Zip file containing the PDF images for the various cards associated with the election.

To generate a zip of PDF images for the cards in a ballot set:

1. From the **Ballot Sets** view, click **Print**.

ClearDesign displays the Print Cards dialog (Figure 6-17).



The 'Print Cards' dialog box is titled 'Print Cards' and contains the following elements:

- A header question: 'OK to print the Cards?'.
- A 'Print Cards' dropdown menu with 'For each Precinct' selected.
- A 'Ballot Set' dropdown menu with 'All' selected.
- A 'Language' dropdown menu with 'All Languages' selected.
- A checked checkbox for 'Print Stubs'.
- An unchecked checkbox for 'Show Proof Mark'.
- A 'Proof Mark' text field containing the word 'Sample'.
- A checked checkbox for 'Set Election State To Cards Created'.
- A checked checkbox for 'Include Election Backup'.
- A 'Validation Code' text field.
- A 'Confirm Validation Code' text field.
- An unchecked checkbox for 'Show Validation Code'.
- 'OK' and 'Close' buttons at the bottom right.

Figure 6-17. Print Cards dialog

- From the **Print Cards** drop-down list, select an option listed in Table 6-6 to generate a file with the specified naming convention:

Table 6-6. Options the Print Cards drop-down list

Print Cards Option	Naming convention for the output file
For each Precinct	<i>ElectionName-card_precincts.zip</i>
For each Split	<i>ElectionName-card_splits.zip</i>
For each Card - for proofing only	<i>ElectionName-cardStyles.zip</i>
For each Card Style - for proofing only	<i>ElectionName-cardStyles.zip</i>

IMPORTANT: Depending on your selected Split Identifier, some of the preceding options may be unavailable. For details, see "Naming conventions for PDF files associated with splits" on page 175.

- From the **Ballot Set** drop-down list, select All or Standard.
- From the **Language** drop-down list, select one of the following:
 - All—(Default) Prints the cards for all languages
 - A specific language name—Prints only the cards for the specified language
- (Optional) Select (check) **Print Stubs**.

The **Print Stubs** check box appears only when the ballot set contains a header containing a **Header Type** value of Card Stub Top or Card Stub Bottom. By default, the **Print Stubs** check box is selected.

6. (Optional) Add a visible watermark to each ballot image:
 - a. Check **Show Proof Mark**.
 - b. In **Proof Mark**, enter the text of the watermark.

When printing cards or card styles, you cannot deselect **Show Proof Mark** because a watermark is required. However, you can customize the watermark text in **Proof Mark**. This functionality prevents someone from using a proof as an actual card. Proofs are not scannable.

7. (Optional) Select **Set Election State to Cards Created**.
8. (Optional) Select **Include Election Backup** to back up the election.
Selecting **Include Election Backup** enables the **Validation Code** field.
9. (Required if election is backed up) In **Validation Code** and **Confirm Validation Code**, enter the validation code for restoring the backup.
10. Click **OK**.

A status bar tracks the progress (Figure 6-18). To stop generating the files, click the **Cancel** button.

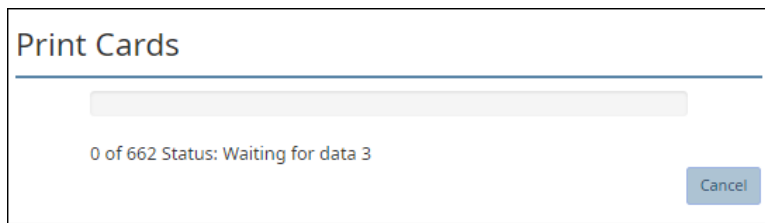


Figure 6-18. Status message when generating a Zip of PDF card images

When the process is finished, a link to the location of the Zip file appears at the bottom of the browser window. ClearDesign download the file to Google Chrome's default Downloads folder. Usually, this location is:

`c:\Users\Your User Name\Downloads`

You can change default this location by editing the Downloads area of the Settings in Google Chrome.

11. Click **Close**.
12. Obtain the files from the default download folder.

The files can include:

- `ElectionName-bdf.zip`
- `ElectionName-backup.zip` (if election backup is selected)
- All the PDF images for the various cards associated with the election

13. Print the files locally or send them to a vendor.

6.3.8 Adding or editing a ballot set

To edit a ballot set:

1. Select one of the following options:

- To add a ballot set:
 - a. Select the Ballot Sets tab.
 - b. Click Add.

ClearDesign displays the Ballot Set dialog (Figure 6-19).

- To edit an existing ballot set, click the **Edit** button in the row corresponding to the desired ballot set.

ClearDesign displays the Ballot Set dialog (Figure 6-19).

The screenshot shows the 'Ballot Set: Absentee' dialog box. It has a title bar with 'Save', 'Reset', and 'Cancel' buttons. The dialog is divided into two main sections. The top section contains fields for 'Name' (Absentee), 'Short Name' (Absentee), 'Import ID' (empty), 'Card Template' (8.5 x 11 - 3 Column), 'Split Identifier' (Name), 'Sort Seq' (20), 'Abbreviation' (Absent), 'Export ID' (empty), 'Layout Style' (Color & Border), 'Precinct Type' (Standard), 'Combine Similar Ballots' (checkbox), and 'Separate Voter Group Ballots' (checkbox). The bottom section is titled 'Contests' and contains a list of contests with checkboxes: 'All Contests' (checkbox), 'Madison City County Judge (Single Precinct and Write-in)', 'County Parks Board (Choose 2 out of 8 n/m)', 'Northern Clear County Judge', 'Southern Clear County Judge', 'Eastern Clear County Judge', 'Retain Judge William S. Clark (Retention)', 'Recall Rep.. (y/n followed by vote)', 'Recall Subsequent Vote (Precinct Rotation)', 'Representative To The United States Congress (write-in only)', 'U.S. Fed. Senator Vote (Single Vote - Precinct Rotation)', 'President of the Unified States (cross-voting)', 'State Parks Funding (Jurisdiction Wide Question)', 'Madison City Funding for Tourism (Splits within Precinct)', and 'Lakeside Suburbs incorporation (Splits across Precincts)'.

Figure 6-19. Ballot Set dialog

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

3. In **Card Template**, select the card template that controls ballot size and orientation.
4. In **Layout Styles**, select the layout style that controls visual appearance.

5. (Optional) In **Split Identifier**, if permitted, select one of:
 - **Name**—Prints the split name at the bottom of the ballot.
For additional information, see "Split Identifier—Name" on page 175.
 - **Ballot Sequence**—Prints the ballot sequence number at the bottom of the ballot.
For additional information, see "Split Identifier—Ballot Sequence" on page 175.
6. (Optional) In **Precinct Type**, select Standard or All.
The Standard selection is the default.
If you have a consolidated precinct, set the **Precinct Type** to All or create a separate ballot set for the consolidated precinct.
7. (Optional) Check **Combine Similar Ballots**, if permitted, to consolidate ballots where possible.
8. (Optional) Check **Separate Voter Group Ballots** to generate separate ballots for each voter group.
Headers are affected when you generate separate ballots for each voter group. See Table 5-7, "Header dialog—Voter Group selections" on page 143.
9. In the **Contests** area, do one of the following:
 - Check **All Contests** if the ballot set is to contain all of the contests in the election.
 - To select individual contests, check **All Contests** and then uncheck specific contests. Check only those contests to be included in the ballot set.

When you edit the first ballot set of an election, the **All Contests** check box is selected in the Contests section. You cannot change this setting.
10. Click **Save**.

6.3.9 Deleting ballot sets

To delete ballot sets:

1. From the **Ballot Sets** tab, check the ballot sets to delete.
2. Click **Delete**.
The **Confirm** message appears.
3. Click **OK**.

6.4 Setting up ballot group styles

This topic describes how to:

- Display the ballot group styles that ClearDesign automatically generates
- Edit the common attributes of ballot group styles

6.4.1 Displaying the Ballot Group Styles view

To display the Ballot Group Styles view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info view of the selected election.
2. From the Info view, click the Ballot Sets tab.
ClearDesign displays the Ballot Sets view.
3. From the Ballot Sets view, click the Ballot Group Styles tab.
ClearDesign displays the Ballot Group Styles view (Figure 6-20).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles									
Search:					Copy	PDF	Excel	CSV	Print
Show / hide columns									
	Sort Seq	Name	Ballot Set Name	Splits Count	Contests Count	Ballot Groups Count	Ballot Styles Count		
Edit	1	Ballot Group Style 1	Standard	1	11	1	1		
Edit	2	Ballot Group Style 2	Standard	1	9	1	1		
Edit	3	Ballot Group Style 3	Standard	2	9	2	1		

Figure 6-20. Ballot Group Styles view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Ballot Group Style, Splits Count, Splits, Contests Count, Contests, Ballot Groups Count, Ballot Groups, Ballot Styles Count, and Ballot Styles.

6.4.2 Editing the common attributes of a ballot group style

To edit the common attributes a ballot group style:

1. From the Ballot Group Styles view, click **Edit** in the row corresponding to the desired ballot group style.
ClearDesign displays the Ballot Group Style dialog.

Figure 6-21. Ballot Group Styles dialog

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

3. Click **Save**.

6.5 Setting up ballot groups

This topic describes how to:

- Display a list of ballot groups that ClearDesign generates for the current election
- Edit the common attributes of a ballot group

6.5.1 Displaying the Ballot Groups view

To display the Ballot Groups view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info view of the selected election.
2. From the Info view of the election, click the Ballot Sets tab.
ClearDesign displays the Ballot Sets view.
3. From the Ballot Sets view, click the Ballot Groups tab.
ClearDesign displays the Ballot Groups view (Figure 6-22).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles									
Search:					Copy PDF Excel CSV Print Show / hide columns				
	Sort Seq	Name	Ballot Group Style	Ballot Set	Splits Count	Contests Count	Ballots Count		
Edit	1	Ballot Group 1	Ballot Group Style 1	Standard	1	11	1		
Edit	2	Ballot Group 2	Ballot Group Style 2	Standard	1	9	1		
Edit	3	Ballot Group 3	Ballot Group Style 3	Standard	1	9	1		

Figure 6-22. Ballot Groups view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Export ID, Last Edit By, Last Edit Time, Log Count, Ballot Group Style, Ballot Set, Splits Count, Splits, Contests Count, Contests, Ballots Count, and Ballots.

6.5.2 Editing the common attributes of a ballot group

To edit the common attributes of ballot group:

1. From the **Ballot Groups** view, click Edit in the row corresponding to the desired ballot group.

ClearDesign displays the Ballot Group dialog (Figure 6-23).

Ballot Group: Ballot Group 1

Save Reset Cancel

Name	Ballot Group 1	Sort Seq	1
Short Name	Ballot Group 1	Abbreviation	Ballo1
Import ID		Export ID	

Figure 6-23. Ballot Group dialog

2. If necessary, edit the following common attributes:

- | | |
|-----------------------|--------------------|
| ◦ Name | ◦ Sort Seq |
| ◦ Short Name | ◦ Import ID |
| ◦ Abbreviation | ◦ Export ID |

See "Common attributes of entities" on page 34.

3. Click **Save**.

6.6 Setting up ballot styles

This topic describes how to:

- Display a list of previously generated ballot styles
- Edit the common attributes of ballot styles

Previously generated election media become invalid when any of the following details of ballot styles change:

- Contests—Addition, removal, district, rotation, rotation district
- Candidates—Addition or removal if the contest uses rotation
- Splits—Addition or removal
- Districts—Addition or removal from splits

6.6.1 Displaying the Ballot Styles view

To display the Ballot Styles view:

1. From the Elections view, click the name of the desired election.
2. From the Info view of the election, click the Ballot Sets tab.
3. When ClearDesign displays the Ballot Sets view, click the Ballot Styles tab.

ClearDesign displays the Ballot Styles view (Figure 6-24 below).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles											
Search:						Copy	PDF	Excel	CSV	Print	Show / hide columns
		Sort Seq	Name	Ballot Set	Voter Group	Card Template	Ballot Groups Count	Ballots Count	Card Styles Count	Contests Count	Precincts Count
Edit	Layout	1	Democratic	Standard	Non-Partisan	8.5 x 11 - 3 Column	1	1	0	11	1
Edit	Layout	2	Republican	Standard	Non-Partisan	8.5 x 11 - 3 Column	1	1	0	9	1
Edit	Layout	3	Libertarian	Standard	Non-Partisan	8.5 x 11 - 3 Column	2	2	0	9	2

Figure 6-24. Ballot Styles view (default columns shown)

6.6.2 Editing the common attributes of a ballot style

To edit the common attributes of a ballot style:

1. From the **Ballot Styles** view, click Edit in the row corresponding to the desired ballot style.

ClearDesign displays the Ballot Style dialog.

Ballot Style: Democratic

Save Reset Cancel

Name	Democratic	Sort Seq	1
Short Name	Democratic	Abbreviation	Democr
Import ID		Export ID	
Voter Group Democratic			

Figure 6-25. Ballot Style dialog

2. If necessary, edit the following common attributes:

- | | |
|-----------------------|--------------------|
| ◦ Name | ◦ Sort Seq |
| ◦ Short Name | ◦ Import ID |
| ◦ Abbreviation | ◦ Export ID |

See "Common attributes of entities" on page 34.

3. Click **Save**.

6.6.3 Previewing the layout of a ballot style

To preview the layout of a ballot style :

1. Click **Layout** in the row corresponding to the desired ballot in the Ballot Styles view.
ClearDesign populates the Layout Preview with the selected ballot style.

2. Review and modify the layout as needed.

See "Layout Preview" on page 218.

6.7 Setting up ballots

This section describes how to:

- Display the Ballots view
- Edit the common attributes of a ballot
- Preview an accessible ballot

6.7.1 Displaying the Ballots view

To display the Ballots view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info tab for the selected election.
2. From the Info view, click the Ballot Sets tab.
ClearDesign displays the Ballots Sets view. .
3. From the Ballot Sets tab, click the Ballots tab.
ClearDesign displays the Ballots view (Figure 6-26).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles											
Search:								Copy	PDF	Excel	CSV
								Print	Show / hide columns		
		Sort Seq	Name	Ballot Style	Ballot Set	Card Template	Voter Group	Contest Count	Card Count	Precincts Count	Split Count
Edit	Layout	HTML Layout	1	Ballot 1	Democratic	Standard	8.5 x 11 - 3 Column	Non-Partisan	11	0	1
Edit	Layout	HTML Layout	2	Ballot 2	Republican	Standard	8.5 x 11 - 3 Column	Non-Partisan	9	0	1
Edit	Layout	HTML Layout	3	Ballot 3	Libertarian	Standard	8.5 x 11 - 3 Column	Non-Partisan	9	0	1

Figure 6-26. Ballots tab (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Ballot Style, Ballot Set, Card Template, Voter Group, Ballot Groups, Contest Count, Contest Rotations, Contests, Card Count, Cards, Split Counts, and Splits.

6.7.2 Editing the common attributes of a ballot

To edit the common attributes of a ballot:

1. From the Ballots view, click **Edit** in the row corresponding to the desired ballot.

ClearDesign displays the Ballot dialog.

Ballot: Ballot 1

SaveResetCancel

NameBallot 1

Sort Seq1

Short NameBallot 1

AbbreviationBallo1

Import ID

Export ID

Figure 6-27. Ballot dialog

2. If necessary, edit the following common attributes:

- Name
- Short Name
- Abbreviation
- Sort Seq
- Import ID
- Export ID

See "Common attributes of entities" on page 34.

3. Click **Save**.

6.7.3 Previewing the layout of a printed ballot

To preview the layout of a printed ballot:

1. Click **Layout** in the row corresponding to the desired ballot in the Ballots view.

ClearDesign populates the Layout Preview with the selected ballot.

2. Review and modify the layout as needed.

See "Layout Preview" on page 218.

6.7.4 Previewing the layout of an accessible ballot

For more information about accessible ballots, see the *ClearAccess Supervisor Guide*.

To preview ballot appearance on an accessible device:

1. In the **Ballots** tab (Figure 6-26), click **HTML Layout** for the ballot you want to preview.

The following window appears (Figure 6-28 below)

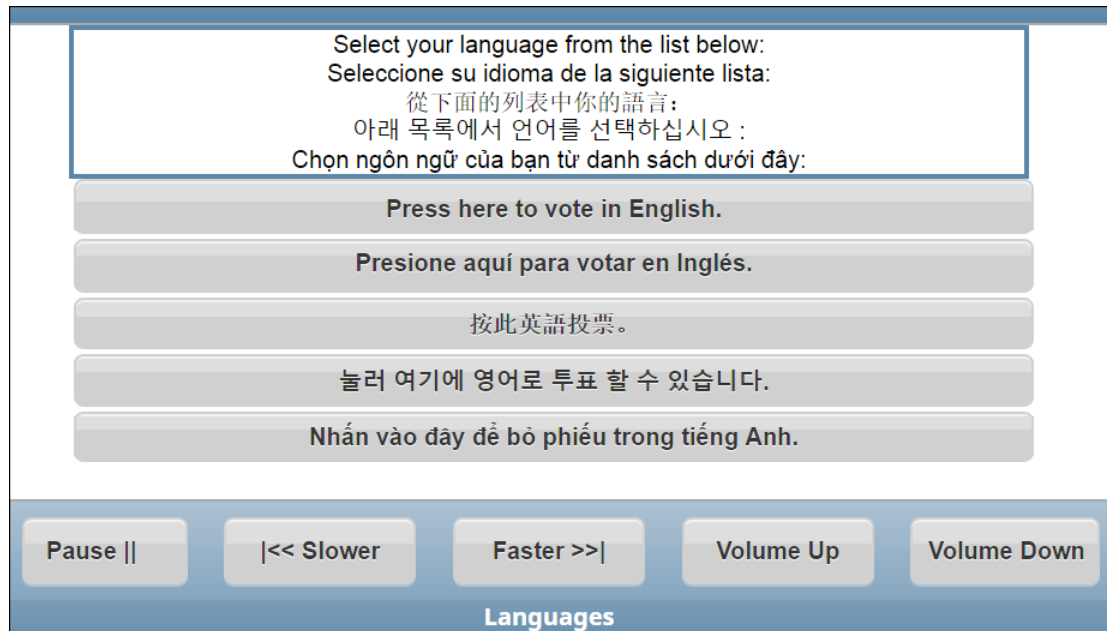


Figure 6-28. Selecting a language

2. Click to the appropriate button to select the desired language.

The following screen appears (Figure 6-29).

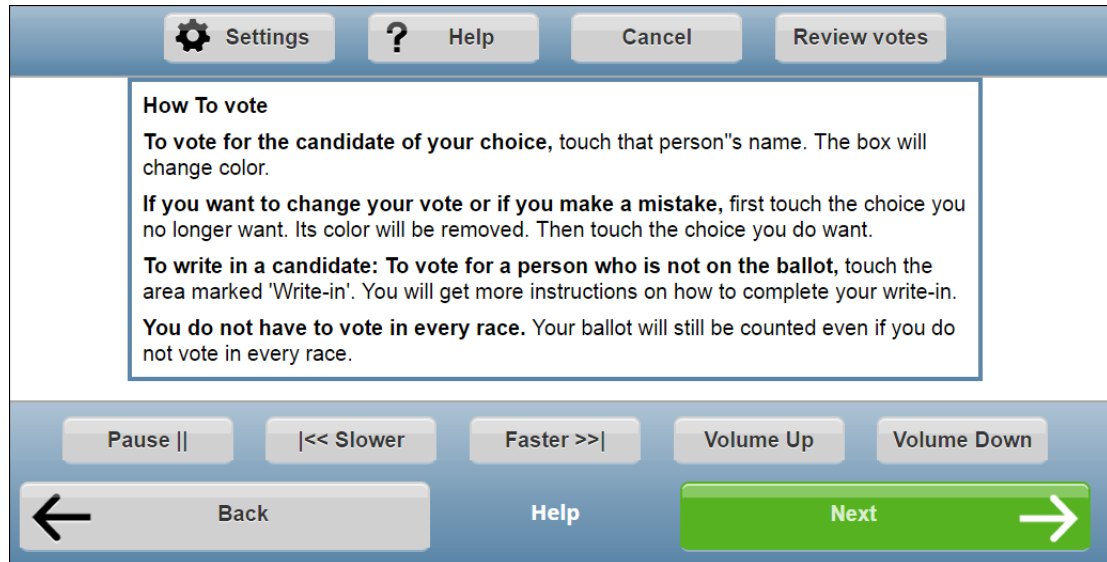
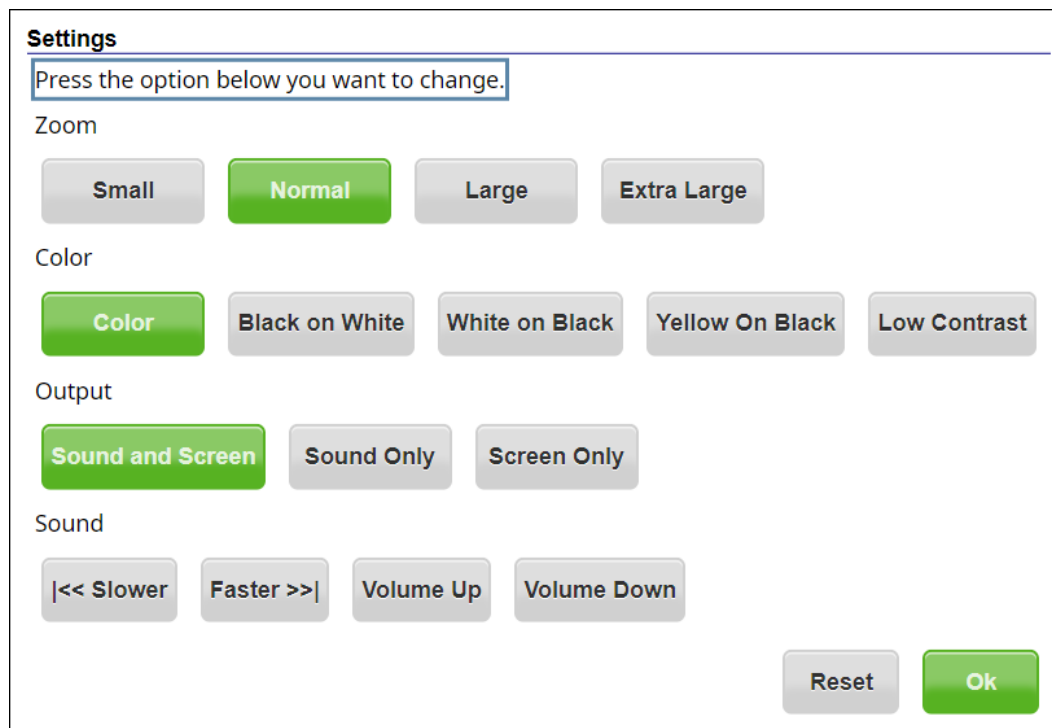


Figure 6-29. How to vote screen

3. Do any of the following:

- To move forward, click **Next**.
- To move backward, click **Back**.
- To change the zoom, color, sound, or screen, click **Settings** (Figure 6-30).



Settings

Press the option below you want to change.

Zoom

Small Normal Large Extra Large

Color

Color Black on White White on Black Yellow On Black Low Contrast

Output

Sound and Screen Sound Only Screen Only

Sound

|<< Slower Faster >>| Volume Up Volume Down

Reset Ok

Figure 6-30. Settings screen

On the Settings screen, the Zoom settings control the font size. All font sizes specified for a contest text are converted to a relative font size when you preview an accessible ballot.

Examples: A font size of 10 is equal to 100%. A font size of 16 is equal to 160%.

- To view a summary of the voter's actions, click **Review votes**.

4. To return to the **Ballots** view, click **Cancel**.

For information about editing any of the noncontest text that appears in the accessible device preview, see "Editing device messages" on page 89.

6.8 Setting up card styles

This topic describes card styles.

Previously generated election media become invalid when any of the following details of card styles change:

- Card layouts—Contests, candidates, voter groups, headers, ballot text (including margins, borders, padding, fonts, justification and colors)
- Candidates—Addition or removal
- Voter groups
- Rotation settings
- Ballot order

6.8.1 Displaying the Card Styles view

To display the Card Styles view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info tab for the selected election.
2. From the Info view, click the Ballot Sets tab.
ClearDesign displays the Ballots Set view.
3. From the Ballot Sets view, click the Card Styles tab.
ClearDesign displays the Cards Styles view (Figure 6-31).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Card Styles Cards Card Templates Layout Styles											
Search:						Copy	PDF	Excel	CSV	Print	Show / hide columns
	Sort Seq	Name	Ballot Set	Voter Group	Card Sequence	Card Template	Layout Style	Ballot Styles Count	Cards Count	Contests Count	
Edit	Layout	1	Card Style 1	Standard	Non-Partisan	1	8.5 x 11 - 3 Column	Color & Border	1	1	10
Edit	Layout	2	Card Style 2	Standard	Non-Partisan	2	8.5 x 11 - 3 Column	Color & Border	1	1	2
Edit	Layout	3	Card Style 3	Standard	Non-Partisan	1	8.5 x 11 - 3 Column	Color & Border	1	1	9
Edit	Layout	4	Card Style 4	Standard	Non-Partisan	1	8.5 x 11 - 3 Column	Color & Border	1	2	9

Figure 6-31. Card Styles view (default columns shown)

Selectable columns

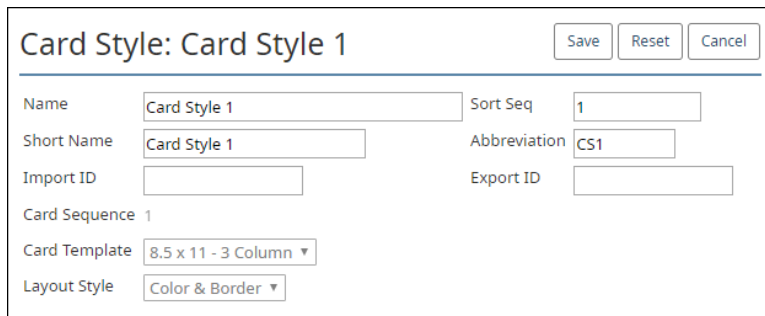
Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Card Sequence, Voter Group, Card Template, Layout Style, Ballot Styles Count, Ballot Styles, Cards Count, Cards, Contests Count, and Contests.

6.8.2 Editing the common attributes of a card style

To edit a card style:

1. From the Cards Styles view, click **Edit** in the row corresponding to the desired card style.

ClearDesign displays the Card Style dialog.

The image shows a dialog box titled "Card Style: Card Style 1" with "Save", "Reset", and "Cancel" buttons at the top right. The dialog contains several input fields: "Name" (Card Style 1), "Short Name" (Card Style 1), "Import ID" (empty), "Sort Seq" (1), "Abbreviation" (CS1), "Export ID" (empty), "Card Sequence" (1), "Card Template" (8.5 x 11 - 3 Column), and "Layout Style" (Color & Border).

Name	Card Style 1	Sort Seq	1
Short Name	Card Style 1	Abbreviation	CS1
Import ID		Export ID	
Card Sequence	1		
Card Template	8.5 x 11 - 3 Column		
Layout Style	Color & Border		

Figure 6-32. Card Styles dialog

2. If necessary, edit the following common attributes:

- **Name**
- **Sort Seq**
- **Short Name**
- **Import ID**
- **Abbreviation**
- **Export ID**

See "Common attributes of entities" on page 34.

The **Layout Style** field is read only.

3. Click **Save**.

6.8.3 Previewing the layout of a card style

To preview the layout of a card style:

1. Click **Layout** in the row corresponding to the desired card style in the Card Styles view.

ClearDesign populates the Layout Preview with the selected card style.

2. Review and modify the layout as needed.

See "Layout Preview" on page 218.

6.9 Displaying the Cards view

To display the Cards view:

1. From the Elections view, click the name of the desired election.

ClearDesign displays the Info tab for the selected election.

- From the Info view, click the Ballots Sets tab.
ClearDesign displays the Ballots Sets view.
- From the Ballot Sets view, click the Cards tab.
ClearDesign displays the Cards View (Figure 6-33).

Ballot Sets Ballot Group Styles Ballot Groups Ballot Styles Ballots Cards Card Templates Layout Styles											
Search:				Copy	PDF	Excel	CSV	Print	Show / hide columns		
	Sort Seq	Name	Card Style	Ballot Set	Ballots	Voter Group	Card Sequence	Card Template	Contests Count	Splits Count	
Edit Layout	19	Card 19	Card Style 1	Standard	Ballot 1	Non-Partisan	1	8.5 x 11 - 3 Column	10	1	
Edit Layout	20	Card 20	Card Style 2	Standard	Ballot 1	Non-Partisan	2	8.5 x 11 - 3 Column	2	1	
Edit Layout	21	Card 21	Card Style 3	Standard	Ballot 2	Non-Partisan	1	8.5 x 11 - 3 Column	9	1	

Figure 6-33. Cards view (default columns shown)

Selectable columns

Selectable columns include: Sort Seq, Name, Short Name, Abbreviation, Import ID, Last Edit By, Last Edit Time, Card Style, Voter Group, Card Sequence, Card Template, Contests Count, Contests, Splits Count, and Splits.

6.9.1 Editing the common attributes of a card

To edit the common attributes of a card:

- From the cards view, click Edit in the row corresponding to the desired card.

Clear Ballot displays the Card dialog (Figure 6-34).

Card: Card 19

Save Reset Cancel

Name	Card 19	Sort Seq	19
Short Name	Card 1	Abbreviation	Card 1
Import ID		Export ID	
Card Style	Card Style 1		

Figure 6-34. Card dialog

- If necessary, edit the following common attributes:
 - **Name**
 - **Sort Seq**
 - **Short Name**
 - **Import ID**
 - **Abbreviation**
 - **Export ID**

See "Common attributes of entities" on page 34.

The **Card Style** field is read only.

- Click **Save**.

6.9.2 Previewing card layouts

To preview a card layout:

1. From the navigation pane, choose **Ballot Sets > Cards**.
The **Cards** view appears.
2. Click **Layout** for the card.
The **Layout Preview** page replaces the **Cards** view, and is populated with the information for the selected card.
3. (Optional) Modify the card layout as described in "Layout Preview" on page 218.
4. (Optional) Click **Save**.
5. Click **Close**.
The **Cards** view replaces the layout preview.

6.9.3 Moving text from one card to another in layout preview

To move text from one of the cards in a ballot to another card in the same ballot on the **Layout Preview** page:

1. Select the text you want to move.
2. Enter **[Ctrl+X]** to cut the text from the present location.
3. Move the cursor to the location where you want to place the text.
4. Enter **[Ctrl+V]** to paste the text in the new location.

6.10 Setting up card templates

This topic describes how to:

- Display the card templates view
- Add or edit a card template

6.10.1 Displaying the Card Templates view

To display the Card Templates view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info tab for the selected election.
2. From the Info view of the election, click the Ballot Sets tab.
ClearDesign displays the Ballots Set view.

- From the Ballot Sets view, click the Card Templates tab.

ClearDesign displays the Cards Templates view (6.10.1).

Ballot Sets				Ballot Group Styles				Ballot Groups				Ballot Styles				Ballots				Card Styles				Cards				Card Templates				Layout Styles			
Add		Delete		Search:		Copy		PDF		Excel		CSV		Print		Show / hide columns																			
		Sort Seq		Name																															
		10		8.5 x 11 - 3 Column																															
Edit		20		8.5 x 14 - 3 Column																															
Edit		30		8.5 x 17 - 3 Column																															
Edit		40		8.5 x 18 - 3 Column																															

Figure 6-35. Card Templates view

6.10.2 Adding or editing a card template

To add a card template:

- Select one of the following options:
 - To edit an existing card template, click **Edit** in the row corresponding to the desired card template in the Card Templates view.
 - To create a new card template, click **Add** in the Card Templates view.

ClearDesign displays the Card Template dialog (Figure 6-36).

Card Template: 8.5 x 11 - 3 Column

SaveResetCancel

Name

8.5 x 11 - 3 Column

Sort Seq

10

Height

11

Front Orientation

Portrait

Back Orientation

Portrait

Front Number Columns

3

Back Number Columns

3

Oval Position

Left

Figure 6-36. Card Template dialog

2. If necessary, edit the fields listed in Table 6-7.

Table 6-7. Fields of the Card Templates dialog

Field	Description
Height	Height in inches
Front Orientation	Portrait or Landscape for the front of the template
Back Orientation	Portrait or Landscape for the back of the template
Front Number Columns	The number of columns on the front of the template
Back Number Columns	The number of columns on the back of the template
Oval Position	Right or Left position of the vote targets relative to the candidate names

3. Click **Save**.

6.10.3 Deleting card templates

To delete card templates:

1. From the **Card Templates** tab, check the card templates to delete.
2. Click **Delete**.
The confirmation message appears.
3. Click **OK**.

6.11 Setting up layout styles

Layout styles control the overall look and feel of a ballot set.

6.11.1 Displaying the Layout Styles view

The Layout Styles view enables to add, delete, or change a layout style.

To display the Layout Styles view:

1. From the Elections view, click the name of the desired election.
ClearDesign displays the Info view of the selected election.
2. From the Info view, click the Ballot Sets tab.
ClearDesign displays the Ballot Sets view.

- From the Ballot Sets view, click the Layout Styles tab.

ClearDesign displays the Layout Styles View (Figure 6-37).

	Sort Seq	Name
Edit	10	Color & Border
Edit	20	Border

Figure 6-37. Layout Styles view

Selectable columns

Selectable columns include: Sort Seq and Name.

6.11.2 Layout Style editor

The Layout style editor enables you to edit various setting that determine the appearance of the ballot set.

To display the Layout Style editor, click the **Edit** button in the row for the desired style in the Layout Styles view (Figure 6-37).

Figure 6-38 shows the Layout Style editor.

Figure 6-38. Layout Style editor

The Layout Style editor contains the following groups of settings:

- "Ballot-level settings" on the next page
- "Entity settings related to text for each configured language" on page 209
- "Entity settings for margins, borders, and padding" on page 210

6.11.3 Inheritance of layout styles

Layout styles are hierarchical and inherit their values from their parent element by default.

ClearDesign also supplies default entity style types that other styles inherit. This arrangement allows you to specify an attribute in one place for each language.

The hierarchy of the styles for inheritance is as follows in terms of most dominant to least dominant.

Contests, Candidates, and Header editors

1. HTML formatting by language in the ballot text editor
2. The Layout tab in the ballot text editor

Layout style of the ballot set

1. The language of the entity subtype (card header, contest header, candidate contest, question contest, and so on) in the layout style for the ballot
2. The layout for the entity type (header, contest, choice, voter group) default in the layout style for the ballot
3. The language for the Default option in the layout style for the ballot

Therefore, set the attributes in the most general location.

Example: Suppose that the font family is specified only in the Default layout entity style. In this situation, you can globally change the font family for each language by setting it in the default layout entity style. If the font family is specified for a contest's default language, all languages in that contest will use that font family.

If you want a different font only for the candidate names, add the Choice Candidate option and set the alternative font at this level by language. With this arrangement, the Choice Candidate option overrides the Default option, but only for Candidates.

6.11.4 Ballot-level settings

Ballot-level settings appear at the top of the Layout Style dialog (Figure 6-38 on the previous page). Table 6-8 describes these settings.

Table 6-8. Ballot-level settings

Setting	Description	Default
Sort Seq	Editable sort sequence for the layout style	NA

Table 6-8. Ballot-level settings (continued)

Setting	Description	Default
Voter Group Position	Position of the voter group name relative to candidate name. One of the following: • None (no voter group name) • Beside • Below	Beside
Voter Group Width	Distance between the candidate name and voter group name when they appear together If no Voter Group is desired, set this value to 0 to allocate maximum space for the candidate or choice name.	35
Write-in Line Position	Sets the position of the write-in line in relation to the write-in label. One of the following: • Above—The write-in line appears above the write-in label. • Below—The write-in line appears below the write-in label. • None—The write-in line does not appear. By default, ClearDesign places the line for the bottom write-in choice on top of the bottom border line of the contest when the write-in line is below the write-in label or when there is no label. To ensure that the write-in line is visible in this situation, select the Choice Default entity style and set a sufficiently large Padding Bottom value.	Above

6.11.5 Entity settings related to text for each configured language

The Layout Style editor contains some settings related to language. For example, Figure 6-38 shows two tabs containing settings for Spanish and Vietnamese.

Table 6-9 lists the entity settings related to each configured language.

Table 6-9. Entity settings related to text for each configured language

Setting	Description
Font	The font name
Size	The font size in points.

Table 6-9. Entity settings related to text for each configured language (continued)

Setting	Description
Justify	The alignment of the text. Selections are: Inherit, Left, Center, and Right
Background Color	An HTML color code or name
Letter Spacing	The amount of space between a group of letters to affect density in a line or block of text. Selections are: Inherit, Compressed, Normal, Expanded, and Very Expanded
Line Spacing	The vertical distance between lines of text.
Option	Options for the font. The available options can vary depending on the selected font. One of the following: Inherit, Normal, Bold, Italic, Underline, Bold Italic, Bold Underline, Italic Underline, and Bold Italic Underline
Text color	An HTML color code or name.

6.11.6 Entity settings for margins, borders, and padding

Because ClearDesign layout is based on a table model, each entity can be considered as a "box." Each box has margin, border, and padding attributes that interact as shown in Figure 6-39

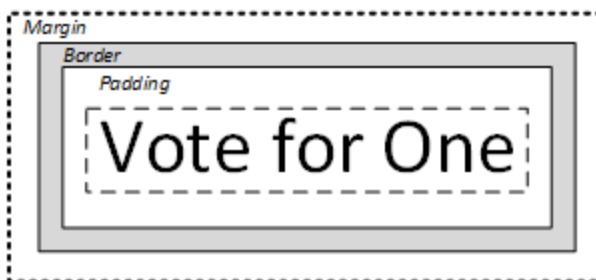
**Figure 6-39. Margin, border, and padding**

Figure 6-39 shows the following:

- The margin is the space outside the border up to the edge of the entity's box.
- The border is the optional outline that separates the margin and the padding.
- The padding is the space between the border and the content.

The Layout Style Editor contains settings for margins, borders, and padding as shown in Figure 6-38. You can specify that the language-specific settings inherit values from a parent entity or you can a pixel value in the range of 0 to 18.

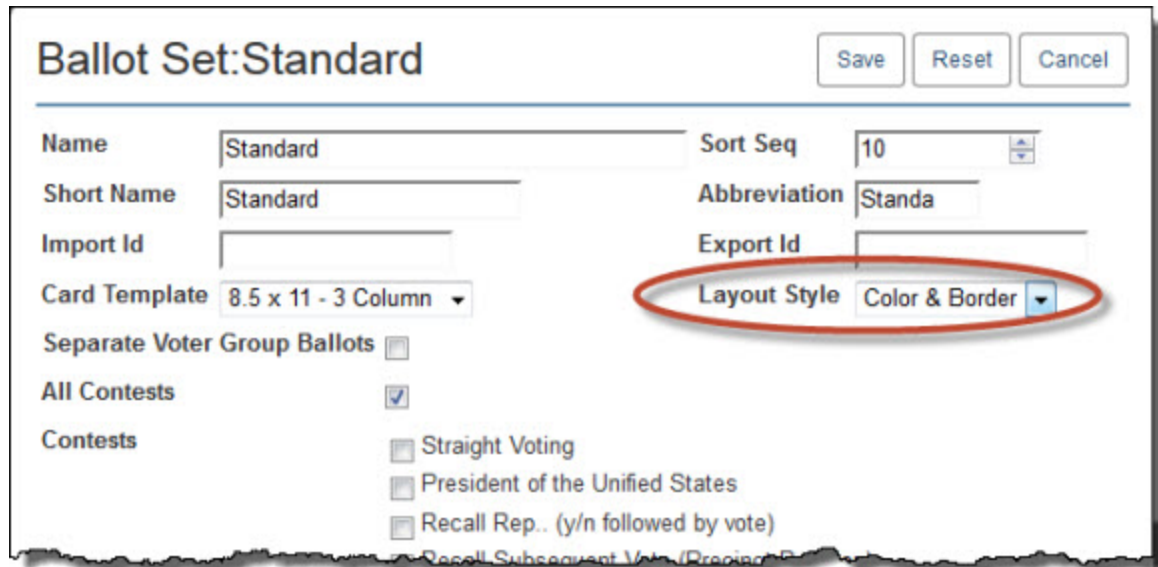
6.11.7 Applying a layout style to a ballot set

To apply a layout style to a ballot set:

1. In the **Ballot Sets** view, in the row for the ballot set you want to modify, click **Edit**.

The Ballot Set dialog appears.

2. In **Layout Style**, select the layout style you want to apply.



The screenshot shows the 'Ballot Set: Standard' dialog box. It has a title bar with 'Save', 'Reset', and 'Cancel' buttons. The dialog contains several fields and checkboxes. The 'Layout Style' dropdown menu is highlighted with a red circle, showing 'Color & Border' as the selected option. Other fields include 'Name' (Standard), 'Short Name' (Standard), 'Import Id' (empty), 'Card Template' (8.5 x 11 - 3 Column), 'Sort Seq' (10), 'Abbreviation' (Standa), 'Export Id' (empty), 'Separate Voter Group Ballots' (unchecked), 'All Contests' (checked), and 'Contests' (Straight Voting, President of the Unified States, Recall Rep.. (y/n followed by vote), Recall Subsequent Vote (Prep...)).

3. Click **Save**.

6.11.8 Adding a layout style

To add a layout style:

1. From the **Layout Styles** view, click **Add**.

The **Layout Style** dialog appears. See "Ballot-level settings" on page 208.

Figure 6-40. Layout Style editor

2. In **Name**, enter the full user-defined name.
3. (Optional) In **Sort Seq**, enter the sorting sequence.
4. In **Voter Group Position**, select the position of the party affiliation relative to the candidate name, which is one of: None, Beside, or Below.
5. (Optional) In **Voter Group Width**, change the distance between candidate name and party affiliation when they appear beside each another on the ballot.



If you are not using VR labels, set the **Voter Group Width** to 0 for the best results for candidate name spacing.

6. Under **Entity Styles**, do one of the following:
 - Select an existing entity style and modify it as required.
 - Select an existing entity style and click **Delete**.
 - Click **Add** to create an entity style and modify the default settings as needed.

For details about entity styles, see "Entity style types" on page 215.

7. Click **Save**.

6.11.9 Editing layout styles

Layout styles consist of numerous configurable settings that control the look and feel of the ballot layout. The following describes how to modify these settings.

6.11.9.1 Setting the appearance and position of party affiliation

To set the appearance and position of party affiliation in relation to a candidate's name:

1. Access the **Layout Editor**.
2. In **Voter Group Position**, select one of:
 - None—Party affiliation is not included.
 - Beside—Party affiliation appears next to the candidate name.
 - Below—Party affiliation appears under the candidate name.
3. If you select Beside, enter the percentage in **Voter Group Width**.

If **Voter Group Width** is zero, the text goes to the bottom right and flows into the name of the candidate.

6.11.9.2 Setting layout orientation of a contest

To set the layout orientation of a contest in the **Layout Style** editor, in **Content Layout**, select one of the following :

- Column—Columnar layout
- Horizontal Grid—Horizontal grid layout
- Vertical Grid—Vertical grid layout

6.11.9.3 Setting sort order for layout styles

You can set the order in which layout styles are sorted in the **Layout Styles** tab. This is especially useful when you are managing a large number of layout styles.

To change a layout style's sort order, change the value in the **Sort Seq** column.

6.11.9.4 Changing a layout style

To change a layout style:

1. In the **Layout Style** editor, make any necessary changes.
2. Click **Save**.

Changing the name of a layout style does not create a new layout style. Instead, the newly named style overwrites the existing version.

6.11.9.5 Resetting a layout style

To reset the layout style:

In the **Ballot Sets** view, click **Reset**.

This removes all layout formatting changes made in since the **Layout Style** editor was opened for this session.

6.11.10 Deleting layout styles

To delete layout styles:

1. From the **Layout Styles** tab, check the layout styles to delete.

2. Click **Delete**.

The confirmation message appears.

3. Click **OK**.

6.11.11 Setting entity styles

The lower portion of the **Layout Styles** editor deals with setting entity styles.

Layout Style:Border [Save] [Reset] [Cancel]

Name: Border Sort Seq: 20

ContestLayout: Column

Voter Group Position: Beside Voter Group Width: 35

Entity Styles [Add] [Delete]

- Header Default
- Contest Default
- Choice Default
- VoterGroup
- Sub Header 1
- Sub Header 2
- Sub Header 3
- Sub Header 4
- Sub Header 5
- Sub Header 6
- Sub Header 7

Entity Style Type: Header Default Sort Seq: 10

Font Name: Inherit Size: 12 Background Color: []

Justify: Center Option: Bold Text Color: FFFFFFFF

Border: Top: 1 Left: 1 Bottom: 1 Right: 1 Color: []

Margin: Top: 0 Left: 0 Bottom: 0 Right: 0 Color: []

Padding: Top: 0 Left: 0 Bottom: 0 Right: 0

6.11.11.1 About entity styles

In ballot layout, entity styles are named items that are distinguished by specific layout parameters, such as font type, size, and positioning. These include items such as headers and subheaders, contests, choices, and voter groups.

In the ClearDesign system, you create and configure entity styles individually in the **Layout Styles** editor.

Entity style types

An entity style type associates a unique set of layout parameters with a named entity style. The following types are customized through the **Layout Styles** editor.

You cannot change the entity style type for an existing entity.

Table 6-10. System-defined entity style types

Entity style type	Description
Header Entity Styles	
Header Default	Controls all headers unless overridden by a more specific entity style for headers
Header Card Header	Controls card headers only
Header Card Footer	Controls card footers only
Header Contest Header	Controls contest headers only
Header Contest Footer	Controls contest footers only
Contest Entity Styles	
Contest Default	Controls all contests unless overridden by a more specific entity style for contests.
Contest Candidate	Controls Candidate-type contests except for Choices
Contest Question	Controls Question-type contests except for Choices
Contest Retention	Controls Retention-type contests except for Choices
Contest Recall	Controls Recall-type contests except for Choices.
Contest Straight Party	Controls the Straight Party-specified contest, but not the contests affected by the straight party contest. Also does not affect Choices.
Contest Primary Preference	Controls the Primary Preference-specified contest. Does not affect Choices.
Choice entity styles	
Choice Default	Controls all choices unless overridden by a more specific entity style for choices
Choice Candidate	Controls the choices of a Candidate-type contest
Choice Question	Controls the choices of a Question-type contest

Table 6-10. System-defined entity style types (continued)

Entity style type	Description
Choices Retention	Controls the choices of a Retention-type contest.
Choices Recall	Controls the choices of a Recall-type contest.
Choice Straight Party	Controls the choices of a Straight Party-type contest.
Choice Primary Preference	Controls the choices of a Primary Preference-type contest.
Miscellaneous entity styles	
Candidate Write-in	Controls the write-in field of any contest
Voter Group	Controls the displayed voter group if a candidate choice has a partisan association
Subheader 1 through Subheader 7	Controls the settings for the selected subheader type. Subheader 5 is reserved for the contest Vote For value imported from a files such as BDF, GEMS, or OCVR. (The fixed text can be modified by localizing message 5004. See the <i>ClearDesign Administration Guide</i>.) For OCVR format only, Subheader 4 is reserved for question text other than the first line.

6.11.11.2 Adding entity styles

You can add an entity style only when you select one of the default entity styles (Header Default, Candidate Default, Choice Default). If there are no more entity styles to add, ClearDesign displays a warning message.

To add an entity style:

1. In the **Layout Styles** editor, in the **Entity Styles** section, click **Add**.
An entity style named **New** appears in the entity style list.
2. In **Entity Style Type**, select an entity style.
The label **New** is replaced with the entity style.
3. Modify the defaults in the **Entity Styles** section as needed.
For details, see "Configuring entity styles" on the next page.
4. Click **Save**.

6.11.11.3 Configuring entity styles

To configure an entity style:

1. In the **Layout Style** editor, in the **Entity Styles** section, do one of the following:
 - In **Entity Style**, select an existing entity style to modify.
 - Add a new entity style, as described in "Adding entity styles" on the previous page.

The selected entity style opens in the frame.

Figure 6-41. Entity style settings

2. To configure the font:
 - a. (Optional) In **Font Name**, select the font.
If you have installed a custom font, see the naming conventions described in 3.1.6, "Adding a font to an election" on page 47.
 - b. (Optional) In **Size**, select the font size.
 - c. (Optional) In **Background Color**, enter or select the background color.
 - d. (Optional) In **Justify**, select the text justification (right, center, left, or inherit).
 - e. (Optional) In **Option**, select the font options (plain, normal, bold, italic, or bold italic).
 - f. (Optional) In **Text Color**, enter or select the text color.
3. To configure borders:
 - a. (Optional) In any of **Top**, **Left**, **Bottom**, or **Right**, select the width in pixels for the corresponding border elements.
 - b. (Optional) In **Color**, enter the color code (if known) or select the border color from the palette.

4. To configure margins:
 - a. (Optional) In **Top**, **Left**, **Bottom**, or **Right**, select the width in pixels for the corresponding margin elements.
 - b. (Optional) In **Color**, enter the color code (if known) or select the margin color from the palette.
5. (Optional) To configure padding, in any of **Top**, **Left**, **Bottom**, and **Right**, select the width in pixels for the corresponding padding elements.
6. Click **Save**.

6.11.11.4 Modifying entity styles

To modify an entity style:

1. Access the **Layout Styles** editor.
2. In **Entity Styles**, select the entity style to modify.
3. Edit settings as required.
4. Click **Save**.

6.11.11.5 Deleting entity styles

To delete an entity style:

1. Access the **Layout Styles** editor.
2. In **Entity Styles**, select the entity style to delete.

You cannot delete a default entity style (Header Default, Candidate Default, and Choice Default.)

3. Click **Delete**.

ClearDesign removes the selected entity style.

6.12 Layout Preview

6.12.1 What is Layout Preview?

A **Layout Preview** provides an on-screen view of a selected ballot style, ballot, card style, or card. The page is useful for ballot proofing.

The Layout Preview allows you to experiment with layout styles and card templates. You can drag contests and headers to different areas of the ballot to find the best location. Available actions vary according to the type of entity that you preview.

The initial generation of ballot and ballot style layouts is a manual operation: you click **Generate** on the Ballot Set page.

For convenience, ClearDesign makes automatic adjustments when you format headers or the content of existing contests in the Layout Preview. Manual regeneration is required only when you add or remove contests and candidates from any ballot styles.

Card generation is always manual. In general, card generation is required only when proofing macros and when formatting is finalized.

6.12.2 Selecting the card side

To select the card side to view in the **Layout Preview**, do one of the following:

- Select **Front** or **Back** (Figure 6-42).

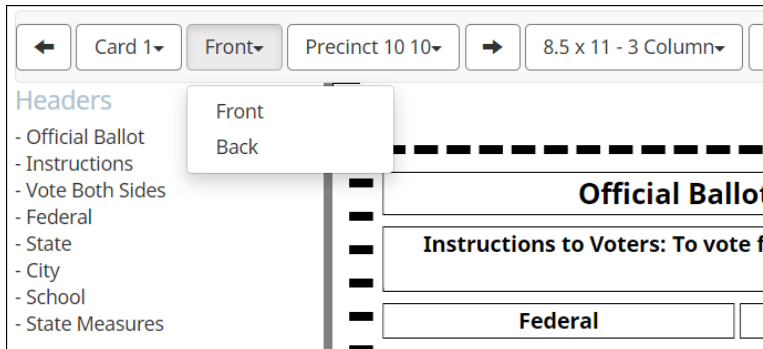


Figure 6-42. Selecting the Front and Back

- Click the forward and back arrow key to change sides (Figure 6-43).

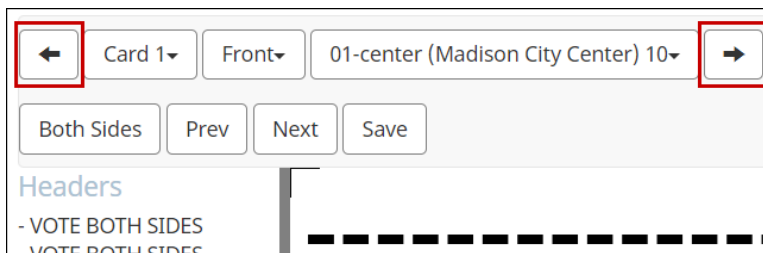


Figure 6-43. Using the arrow keys to change card sides

6.12.3 Changing the card template

The Layout Preview enables you to select a card template that specifies the card dimensions of the card, the number of columns on the front and back, the oval position, and the orientation.

For example, the first selection in Figure 6-44 for the card template is **8.5 x 18 - 4 Front 3 Back**. To change the card template, select another value from the drop-down list.

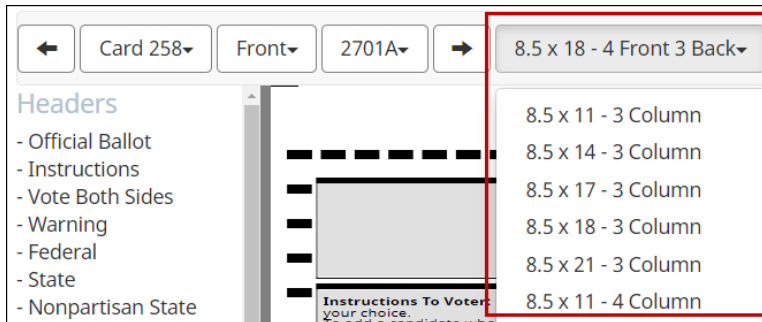


Figure 6-44. Selecting a card template

See also "Setting up card templates" on page 204.

6.12.4 Selecting the split

Select the desired split from the drop-down list (Figure 6-45).

The drop-down list for a split is available only for ballots and cards. It is unavailable when you select a ballot style or card style.

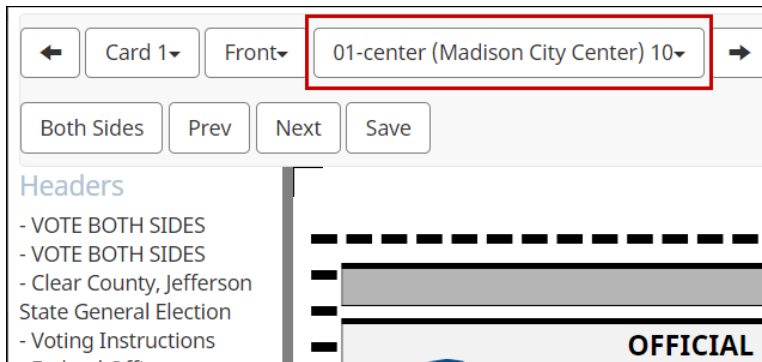


Figure 6-45. Selecting a split

If a split name appears in more than one precinct, the precinct name precedes the split name in the drop-down list.

Example:

Precinct 10 - Split B

Precinct 20 - Split B

See also "Splits" on page 114.

6.12.5 Changing the layout style

The layout style controls the overall design of the ballot style on the **Layout Preview** page. Figure 6-46 show that the layout style Color & Border is selected.



Figure 6-46. Selecting a layout style

See also "Setting up layout styles" on page 206.

6.12.6 Zooming in or out

To zoom in or out on an image in the **Layout Preview** page:

- To make the preview larger, click **Zoom In (+)**.
- To make the preview smaller, click the **Zoom Out (-)**.

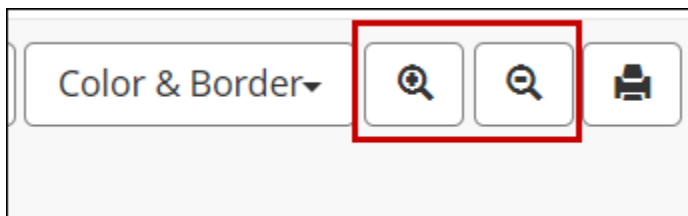


Figure 6-47. Options for zooming in and out

6.12.7 Printing the layout preview image

To print the image in the **Layout Preview** to a local printer, click the **Print** button (Figure 6-48).

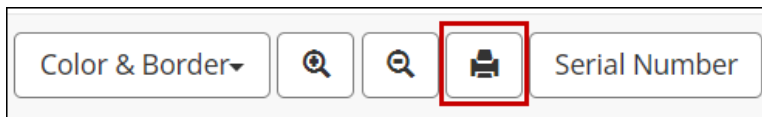


Figure 6-48. Print button for the Layout Preview image

6.12.8 Viewing stubs

A Layout Preview of an entity contains a **Stubs** button only when an election contains a **Header Type** of Card Stub Top or Card Stub Bottom.

For a description of Card Stub Top and Card Stub Bottom, see Table 5-6, "Header Type values" on page 139

The **Stubs** button toggles the display of stubs. By default, the stubs do not display in Layout Preview until you click **Stubs**.

Figure 6-49 shows the top section of a ballot after clicking the Stubs button. The Stubs button is highlighted to indicate that the stub is active. This stub contains the placeholder text "Stub text."

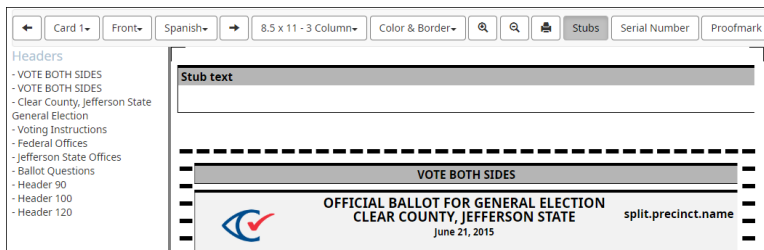


Figure 6-49. Layout Preview of a ballot containing a stub

6.12.9 Adding proof marks

To add a proof mark to the image in the **Layout Preview** page, click **Proof Mark**.

The previously specified proof mark is added as a watermark to the image.

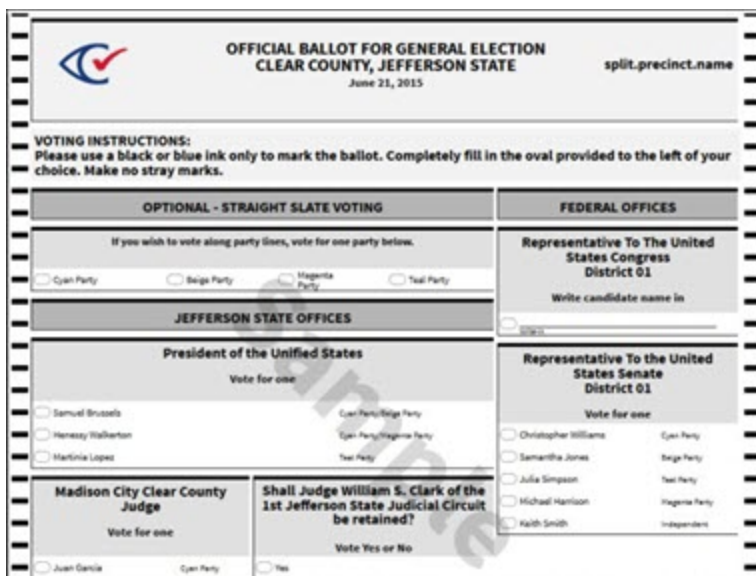


Figure 6-50. Layout Preview showing the proof mark "Sample"

6.12.10 Previewing both sides of cards

To preview both sides of a card, side by side, click **Both Sides**.



When dragging and dropping headers with both sides visible, you must activate the side to drop the header onto.

6.12.11 Resizing and repositioning contests or headers

To change the position of a contest or a header in the **Layout Preview** page:

1. Within the ballot image, click a contest or header to select it.
The selected entity is outlined in red.
2. To move the selected entity, hold down the left mouse button, drag it to a new location, and release the mouse button.
3. To resize the selected entity, hold down the left mouse button, drag an edge of the entity to the desired size, and release the mouse button.

When you drag to resize an entity, it snaps to regular predetermined intervals. To resize an entity in smaller intervals, hold down the **Ctrl** key when you drag.



Other entities do not automatically move to accommodate the new entity. You must move each entity manually.

6.12.12 Adding headers to layouts

To add a header to a layout:

1. In the **Headers** pane, click the header to select it.
The cursor changes to a four-sided arrow.
2. Drag the header from the **Headers** pane to the desired location in Layout Preview (Figure 6-51).
3. Release the mouse button.

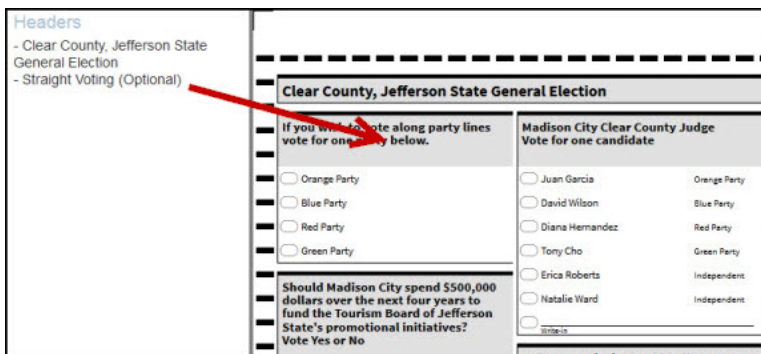


Figure 6-51. Dragging a header to the desired location in the Layout Preview

6.12.13 Paging through a series of ballot images

To page through a series of ballot images in the **Layout Preview** page, click **Prev** to move backward or **Next** to move forward.

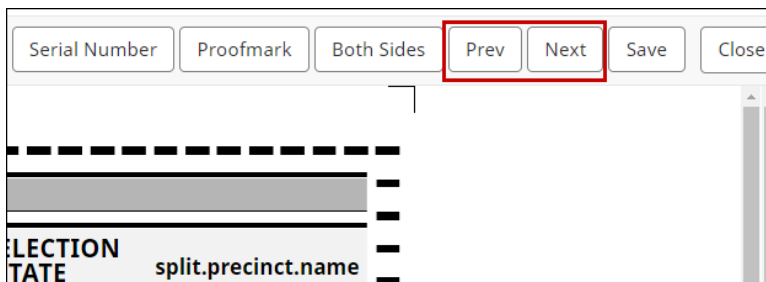


Figure 6-52. The Prev and Next buttons for paging through ballot images

6.12.14 Moving text from one card to another

To move text from one of the cards in a ballot to another card in the same ballot on the **Layout Preview** page:

1. Select the text you want to move.
2. Enter **[Ctrl+X]** to cut the text from the present location.
3. Move the cursor to the location where you want to place the text.
4. Enter **[Ctrl+V]** to paste the text in the new location.

6.12.15 Saving preview changes

To save changes made through the **Layout Preview** page, click **Save**.



Saving fails when any ovals overlap in the preview. This problem can occur when dragging and dropping contests. An error message directs you to the side, row, and column where the overlap occurs. The problem is resolved by adjusting the position of at least one of the affected contests.

6.12.16 Closing the Layout Preview page

To close the **Layout Preview** page:

1. Click **Save**.
ClearDesign discards any unsaved changes.
2. Click **Close**.

6.13 Printing sample ballots

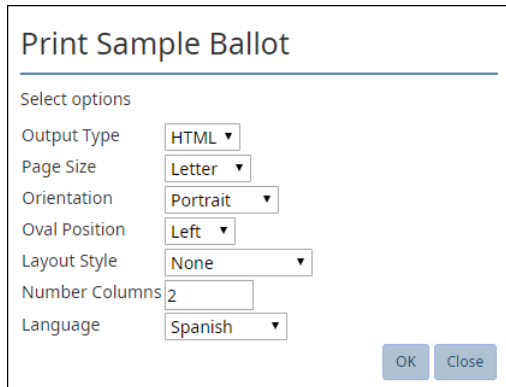
The sample ballot lists all contests in an election. The sample ballot does not represent the finalized format of the actual ballot.

Special header types apply to sample ballots. See "Header Type values" on page 139.

To print a sample ballot for all contests in an election:

1. From the navigation pane, select **Ballot Sets**.
2. Click **Sample Ballot**.

The Print Sample Ballot dialog appears.

The image shows a dialog box titled "Print Sample Ballot". It contains a section labeled "Select options" with several settings: "Output Type" is set to "HTML", "Page Size" is "Letter", "Orientation" is "Portrait", "Oval Position" is "Left", "Layout Style" is "None", "Number Columns" is "2", and "Language" is "Spanish". At the bottom right of the dialog are "OK" and "Close" buttons.

Select options	
Output Type	HTML ▾
Page Size	Letter ▾
Orientation	Portrait ▾
Oval Position	Left ▾
Layout Style	None ▾
Number Columns	2
Language	Spanish ▾

OK Close

Figure 6-53. Print Sample Ballot dialog

3. In **Output Type**, select HTML (the default) or PDF.
4. In **Page Size**, select Letter (the default), Legal, or Tabloid.
5. In **Orientation**, select Portrait or Landscape.
6. In **Oval Position**, select Left or Right.
7. In **Layout Style**, select one of: None, Color & Border, Border, or a user-defined layout style.
8. In **Number Columns** enter the number of columns to render.
9. In **Language**, select English or another language defined for the election.
10. Click **OK**.

ClearDesign displays the sample ballot.

If you select PDF for the **Output Type**, the sample ballot appears in a browser window. To download the ballot in PDF format in this situation:

1. Move the cursor to the upper right of the browser window and click the download icon when it appears.

2. If you receive the message "Failed - Network Error" in the status bar at the bottom of the screen, click the Print icon at the top of the screen or enter Ctrl-P.
3. When the Print dialog appears, change the **Destination** field to Microsoft Print to PDF.
4. When the Save Print Output As dialog appear, designate a File name and select a location to save the PDF file. The default location is your Windows Downloads folder.

6.14 Ballot layout and design tips

This section contains some pointers for effective ballot layout and design in ClearDesign.

- Making ballot questions two columns wide can save some margin space.
- To determine how much text ballots can accommodate, on the **Ballot Styles** view, sort the **Contests Count** column to locate the style with the most contests. In the row for that contest, click the **Layout** button to see a preview.
- When a block of text for a given contest or header is longer than the available space in the specified column of a card side, the contest or header tries to appropriate room from the next column.
- If you start laying out a card from the back and it is empty, it has not been created. Therefore, setting a header location to "next column," "next side," or "next card" has no effect on an empty card or side.
- To place a header on a side of a ballot that contains no contests, do one of the following:
 - Create a header in the **Headers** view so that it appears in the **Headers** pane of the **Layout Preview** page. Drag the header from the **Headers** pane to the back of the ballot style layout and save it.
 - Create a contest of type "candidate." (Optional) Add a candidate of type "label" to the contest to create additional space for more text. Create a contest header associated with that contest and set it to "next side." Adjust the text in the contest, candidate, and header areas to lay everything out as neatly as possible.
- If a contest is large, it may be automatically stretched across extra columns. If it is attached to a header with a starting column, that starting column value may be ignored to move the header and contest over to fit it on the page. To adjust this, do either or both of the following:
 - Change the font size or other layout characteristics of the contest.
 - Select a larger card template.
- ClearDesign's automatic layout never shrinks the font to fit the text. Make any changes to the font size manually.
- A contest cannot be broken across card sides, nor can it start at the bottom of one column and continue at the top of the next column.
- You can manually set the header starting column beyond the number set in the card template. The header and associated contests are move to last column on the applicable side if there is room. If the header is set to span a number of columns greater than one, it is reduced to one column.
- In rare cases, the process that generates a ballot encounters issues that are unclear when reviewing a ballot layout and ClearDesign issues a warning. In this situation, adjust the size and layout of the headers and contests until ClearDesign no longer issues the warning.

Chapter 7. Proofing elections

Proofing is a critical part of the ballot development workflow. This chapter describes how to proof elections in ClearDesign and identifies some workflow considerations.



Clear Ballot does not provide legal advice or override local statutes or guidelines for ballot proofing. If you have any questions, consult with local election officials.

7.1 Recommendations for proofing elections

After creating an election and laying out ballots, it is important to proof the election before sending the ballots to be printed. Elections contain a great deal of detailed information, and even a small mistake may lead to confusion or even disqualification.

Proofing an election may include all of the following for every ballot in every language that the election supports:

- Check that you have correctly defined all fundamental election entities.
- Check the district, precinct, and contest elections for each ballot style to make sure they appear correctly.
- Check that candidates and contests are properly represented.
- Make sure rotations are properly represented in each ballot.
- Confirm that the numbers of candidates and contests are correct.
- Make sure that, for each ballot style, each split contains the correct contests.
- If you have defined an advanced election type, such as a specific type of primary, additional ballot sets, or a consolidated precinct, check that the election conforms to the requirements of your jurisdiction and ClearDesign.
- Check that the election definition meets the requirements any downstream ClearDesign products used in your jurisdiction:
 - ClearAccess
 - PrintNow
 - ClearCount
 - ClearCast
- In some jurisdictions, the ClearVote systems have interfaces with third-party election-night systems and other data aggregation systems. Set aside time to test the import of data from ClearDesign systems into the third-party systems
- Look for general typos and misspellings.
- Inspect the overall ballot style layout and making any needed design modifications.
- Look for ballot layout problems, such as missing, overlapping, or otherwise illegible text.

- Resolve any duplicate names.



When you export media, ClearDesign issues a warning message about specific duplicate names. Examples are duplicate contest names, short names, and abbreviations for languages, voter groups, and district categories, districts, and precincts. ClearDesign allows you to export the election containing the duplicates, but Clear Ballot recommends resolving the duplicates before committing to final version. Duplicate names cause identification issues in other ClearVote products.

ClearDesign contains built-in tools that can help prevent users from inadvertently introducing errors to their elections and ballots. In addition, ClearDesign supports efficient yet thorough ballot image review for proofing purposes.

7.2 When to proof an election

Proof raw data as early as possible in the process. Then, generate ballots and proof them because they adjust in real time. Make sure that you generate and proof your ballots before generating cards. The cards are static, and any change requires you to regenerate the cards.

7.3 Proofing ballots in additional languages

If your election contains ballots in languages other than English, it is essential that you assign the task of proofing to speakers of those languages. ClearDesign lets you export the translated text to share it with the appropriate personnel.

For information of exporting device messages and ballot text, see "Exporting, translating, and importing language text files" on page 91.

7.4 Proofing on paper versus online

When proofing an election in ClearDesign, you can print the reports and ballots and proof the paper copy or proof these documents online using ClearDesign's visual ballot imaging tools and screens.

In some jurisdictions, statutes mandate the format for proofing.

Many jurisdictions prefer to proof on paper for accuracy. The person proofing a document can annotate it to list required changes. The printed and annotated paper copy can become part of the audit trail for producing the election.

7.5 Proofing best practices

Follow these best practices when proofing ballots in ClearDesign.

- Use the Show / hide columns feature. You can hide columns that are not currently of interest to make it easier to scan pages for the relevant information.
- Do not assume the data imported from a Voter Registration system is clean. It must be proofed.



Each jurisdiction must take local statutes into account when proofing ballots.

7.6 Reports that assist in proofing

ClearDesign provides a set of reports that can help with the ballot proofing process. Some examples are as follows:

- Use the **Contest with Ballot Text** report to check that contest and candidate names are correct.
- Use the **Candidates with Ballot Text** report to check the candidates and ballot text for each contest.
- The **Precincts with Districts (Tabular)** and **Splits with Districts (Tabular)** reports feature the precincts, splits, and district categories as columns, making them easier to proof.

For a complete list of reports, see "List of ballot proofing reports" on page 242.

Chapter 8. Election backup and export

This chapter describes how to back up and export elections in ClearDesign.

8.1 Guidelines for backing up elections

The following guidelines apply to backing up elections:

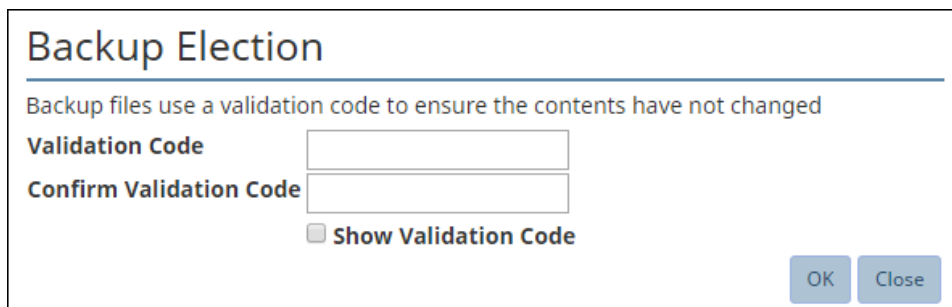
- ClearDesign allows you to back up and restore an election in any state.
- When you back up an election, all data is stored in CSV files that are collected in a single Zip file. ClearDesign uses a hash of each table stored in a configuration file to ensure that no data is modified.
- When you back up an election, you enter a **Validation Code** to supply when restoring the election.
- Clear Ballot recommends storing backup files in a dedicated folder.
- For the technical and security details of backing up and restoring elections, see *ClearDesign Administration Guide*.

8.2 Procedure for backing up an election

To back up an election:

1. From the Elections view, click the **Name** cell of the desired election.
2. From the Info tab, click **Backup**.

ClearDesign displays the Backup Election dialog (Figure 8-1).



Backup Election

Backup files use a validation code to ensure the contents have not changed

Validation Code

Confirm Validation Code

☐ **Show Validation Code**

OK **Close**

Figure 8-1. Backup Election dialog

3. (Optional) Select **Show Validation Code** to display the characters as you type them in **Validation Code** and **Confirm Validation Code**.
4. In **Validation Code** and **Confirm Validation Code**, enter the validation code provided by your system administrator.

- Click **OK** to create the backup.

ClearDesign displays a status message while creating the backup.

When the backup is complete, ClearDesign displays the following message (Figure 8-2).



Figure 8-2. Backup complete message

- Click **Close**.
- To navigate to the location of the backup file, click the link that appears at the bottom of the screen.

The usual location is the Downloads folder in your Windows User folder. The filename format is:

`ElectionName-yyyy-mm-dd hh-mm-backup.zip`

8.3 Export files generated by ClearDesign

ClearDesign can export elections in file formats listed in Table 8-1.

Table 8-1. Export formats

Format	Description
Ballot definition file (BDF)	A Zip archive of CSV files that represent the structure and configuration of an election. ClearCount and ClearCast import the BDF file to set up an election where ballots are analyzed and recorded. For details, see the <i>ClearDesign Ballot Definition File Guide</i> .
Encrypted ballot definition file (BDFx)	A BDFx file contains all the functionality of a BDF file, but with encryption added for security.
Encrypted Accessible data file (ADFx)	A file package created in ClearDesign that is used to program the ClearAccess ballot-marking devices. For details, see the <i>ClearDesign Accessible Definition File Guide</i> .



The ADFx, BDF, and BDFx contain subsets of election data used for specific purposes. Therefore, do not use exported data is to restore elections.

8.3.1 Name of the BDF file

ClearDesign assigns a filename when generating unencrypted BDF and encrypted BDFx files. The filename contains the following parts:

- The **Name** of the election
- The date and time in ISO format
- The string "bdf" or "bdfx"
- The extension ".zip"

Examples:

Clear County General Election-2019-02-15 14-50-bdf.zip

Demo Election-2018-12-21 19-06-bdfx.zip

ClearCount and ClearCast can import BDF and BDFx files containing 63 characters or less. However, when election names are lengthy, ClearDesign can generate BDF and BDFx filenames containing more than 63 characters. In this situation, edit the election name portion of the filename so that the total characters in the filename do not exceed 63. Shortening the filename of the BDF or BDFx does not affect the election name on reports in downstream products.

8.3.2 Duplicates and exporting

When you export an election, ClearDesign issues a warning message about specific duplicate names. Examples are duplicate contest names, short names, and abbreviations for languages, voter groups, and district categories, districts, and precincts. ClearDesign allows you to export the election containing the duplicates, but Clear Ballot recommends resolving the duplicates before committing to final version. Duplicate names cause identification issues in other ClearVote products.

8.4 Exporting an encrypted accessible definition file (ADFx)

After you have generated, proofed, and finalized the election definition, you must create the ADF so that you can load the election definition into ClearAccess.

To generate the ADFx:

1. Ensure that:
 - Ballots are generated and laid out
 - Passwords are set up and associated with ballot sets
2. From the **Info** view of an election, click **Export ADF**.

The Export ADF Files dialog appears if the election is ready to export (Figure 8-3).

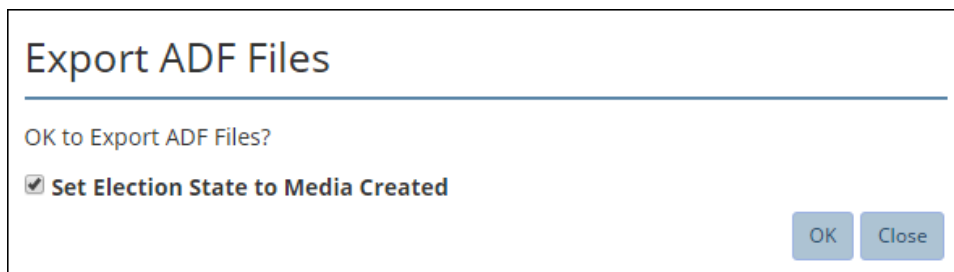


Figure 8-3. Export ADF Files dialog



The message *Not all ballots generated or all cards laid out, cannot export ADF* indicates that the election is not ready to export.

3. (Optional) Deselect **Set Election State to Media Created**.
4. Click **OK**.

ClearDesign displays a status message while creating the ADFx.

When the export process is complete, ClearDesign displays the following message (Figure 8-4).

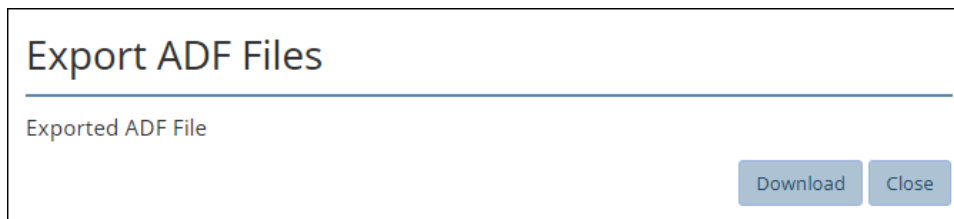


Figure 8-4. Export complete message

5. Click **Download**.

ClearDesign displays a progress message as the ADFx archive downloads to the user-specified location for the browser.

6. When the Exported ADF message appear, click **Close**.

7. To navigate to the location of the ADFx zipped archive file, click the link that appears at the bottom of the screen.

The usual location is Downloads folder in your Windows User folder.

After you export the ADF, you can copy it to a USB drive and load it into ClearAccess.

8.5 Exporting a ballot definition file (BDF or BDFx)

After you have generated, proofed, and finalized the election definition, you must create the BDF so that you can load the election into ClearCount and ClearCast.

1. Ensure that you have generated and laid out the ballot for the election.
2. From the Info dialog of an election, click **Export BDF**.

ClearDesign displays the **Export BDF Files** dialog if the election is ready to export (Figure 8-5).

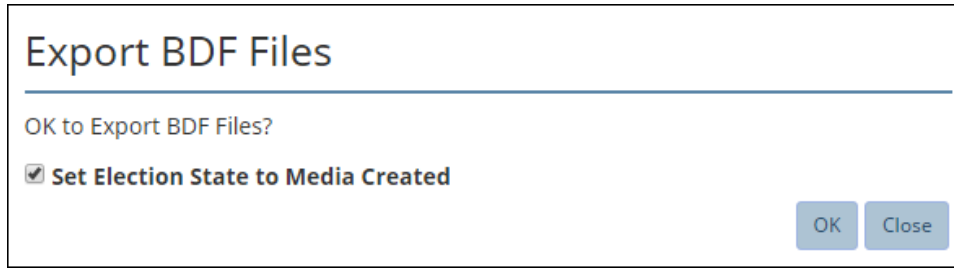


Figure 8-5. Export BDF Files dialog



The message *Not all ballots generated or all cards laid out, cannot export BDF* indicates that the election is not ready to export.

3. If desired, deselect the option **Set Election State to Media Created**.
4. Click **OK** to export the BDF.

ClearDesign displays a status message while creating the BDF or BDFx.

When the export is complete, the following message appears.

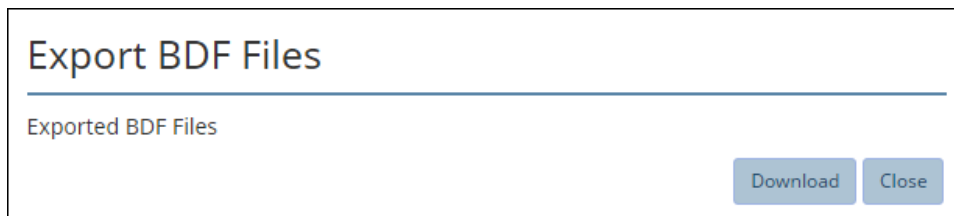


Figure 8-6. Export complete message

5. Click **Close**.
6. To navigate to the location of the BDF zipped archive file, click the link that appears at the bottom of the screen.

The usual location is the Downloads folder in your Windows User folder.

After you generate the BDF, you can copy it to a USB drive that you can load into ClearCount and ClearCast.

Chapter 9. Ballot proofing reports

9.1 Introduction

ClearDesign provides multiple reports that are useful for proofing an election and analyzing how the election is set up. You can view ballot proofing reports online in HTML format or save them as PDF and CSV files.

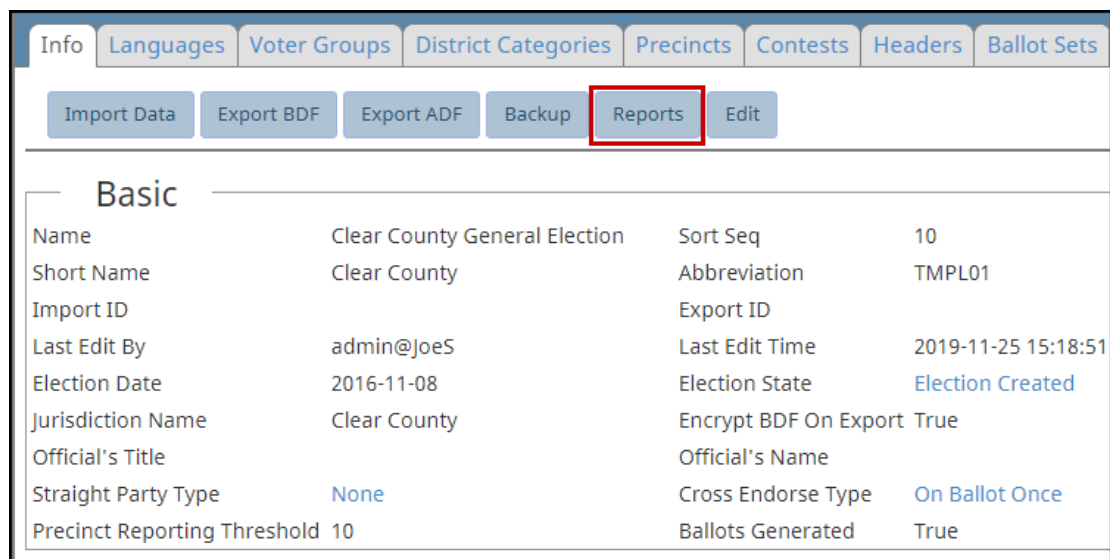
9.2 Displaying the Reports window

The Reports window enables you to select reports the available for an election and specify the options for viewing the reports.

To display the Reports window:

1. From the Elections view, click the name of a desired election to select it.

ClearDesign displays the Info tab for the selected election (Figure 9-1).



Info Languages Voter Groups District Categories Precincts Contests Headers Ballot Sets			
Import Data Export BDF Export ADF Backup Reports Edit			
Basic			
Name	Clear County General Election	Sort Seq	10
Short Name	Clear County	Abbreviation	TMPL01
Import ID		Export ID	
Last Edit By	admin@JoeS	Last Edit Time	2019-11-25 15:18:51
Election Date	2016-11-08	Election State	Election Created
Jurisdiction Name	Clear County	Encrypt BDF On Export	True
Official's Title		Official's Name	
Straight Party Type	None	Cross Endorse Type	On Ballot Once
Precinct Reporting Threshold	10	Ballots Generated	True

Figure 9-1. Selecting Reports on the Info tab for an election

2. On the Info tab, click the **Reports** button.

ClearDesign displays the Reports window (Figure 9-2).

Reports

Select Report:

- Ballot Group Styles
- Ballot Group Styles With Ballot Styles
- Ballot Group Styles With Contests
- Ballot Group Styles With Splits
- Ballot Groups
- Ballot Groups With Ballots
- Ballot Groups With Contests
- Ballot Groups With Splits
- Ballot Sets
- Ballot Sets With Ballot Styles
- Ballot Styles
- Ballot Styles With Candidates
- Ballot Styles With Card Styles
- Ballot Styles With Contests
- Ballot Styles With Precincts
- Ballot Styles With Splits
- Ballots
- Ballots With Candidates
- Ballots With Cards
- Ballots With Contests

Options:

Format: ☐ PDF ☒ HTML ☐ CSV

Orientation: ☒ Landscape ☐ Portrait

Font Size: ☐ Large ☒ Normal ☐ Small

Page Size: Letter ▼

Include: ☐ Ordinal Number ☐ Group Counts ☐ Empty Columns

Print Close

Figure 9-2. Reports window

9.3 Selecting a report and the options for viewing it

To select a report and the desired the options:

1. Click to choose one of the report titles in the **Select Report** pane of the Reports window (Figure 9-2).

For a list and description of all available reports in ClearDesign, see Table 9-2.

2. Select the desired **Options**.

Most options are self-explanatory. Table 9-1 lists the available Include options.

Table 9-1. Include options for reports

Option	Description
Ordinal number	Numbers each item in the report. <i>Example:</i> The Ballot Groups report (Figure 9-3) shows ballot group styles numbered 1 through 6.
Group counts	Lists the numbers of items in each group shown in a report. <i>Example:</i> The partial Ballot Group Styles with Contest Report shown in Figure 9-4 shows two ballot group styles. Ballot Group Standard Style 1 is associated with four contests. Ballot Group Standard Style 2 is associated with the five contests.
Empty columns	Includes empty columns in a report. By default, ClearDesign does not show empty columns in reports. <i>Example:</i> The Ballot Sets report shown in Figure 9-5 shows the empty columns Import ID and Export ID.

3. Once you select the desired options, click the **Print** button to generate the desired report.

The selected report displays in a separate browser tab. You can right-click to save the report, if desired.

9.4 Sample reports

This section shows some sample reports.

9.4.1 Ballot Groups report

Figure 9-3 shows an example of the Ballot Groups report generated with the Ordinal number option selected. In this report, the ballot group styles are numbered 1 through 6 in the left column.

Demo Election Ballot Groups										Mar 23, 2017 11:00:52 AM Page 1 of 1
# Ballot Group Style	Ballot Set	# Sort Seq	Name	Short Name	Abbr	Splits Count	Contests Count	Ballots Count	Last Edit Time	Last Edit By
1 Ballot Group Style 1	Standard	1 1	Ballot Style 1	Ballot Style 1	Ballo1	1	4	1	2015-02-26 19:54:42	admin@Default
2 Ballot Group Style 2	Standard	1 2	Ballot Style 2	Ballot Style 2	Ballo2	1	5	1	2015-02-26 19:54:42	admin@Default
3 Ballot Group Style 3	Standard	1 3	Ballot Style 3	Ballot Style 3	Ballo3	2	4	1	2015-02-26 19:54:42	admin@Default
4 Ballot Group Style 4	Standard	1 4	Ballot Style 4	Ballot Style 4	Ballo4	1	5	1	2015-02-26 19:54:42	admin@Default
5 Ballot Group Style 5	Standard	1 5	Ballot Style 5	Ballot Style 5	Ballo5	2	4	1	2015-02-26 19:54:42	admin@Default
6 Ballot Group Style 6	Standard	1 6	Ballot Style 6	Ballot Style 6	Ballo6	2	5	1	2015-02-26 19:54:42	admin@Default

Figure 9-3. Ballot Groups report (Ordinal number option selected)

9.4.2 Ballot Group Styles with Contests report

Figure 9-4 shows an example of the Ballot Group Styles with contests report generated with the Group Counts options selected.

This report shows two ballot group styles:

- BallotGroup Standard Style 1 is associated with four contests as indicated by the label **Count: 4**.
- Ballot Group Standard Style 2 is associated with five contests as indicated by the label **Count: 5**.

Clear County General Election Ballot Group Styles With Contests					Nov 26, 2019 1:09:59 PM Page 1 of 2
Ballot Group Style	Ballot Set	Contest	District	Voter Group	
Ballot Group Style 1	Standard	US Senate	US Senate District	Non-Partisan	
		US Congressional District 1	US Congressional District 1	Non-Partisan	
		State House District 27	State House District 27	Non-Partisan	
		State Measure 92 - Casinos	Jurisdiction Wide	Non-Partisan	
		Count: 4			
Ballot Group Style 2	Standard	US Senate	US Senate District	Non-Partisan	
		US Congressional District 1	US Congressional District 1	Non-Partisan	
		State House District 27	State House District 27	Non-Partisan	
		City of Lake Worth Councilor	City of Lake Worth	Non-Partisan	
		State Measure 92 - Casinos	Jurisdiction Wide	Non-Partisan	
		Count: 5			

Figure 9-4. Example: Ballot Group Styles with Contests report

9.4.3 Ballot Sets report

Figure 9-5 shows an example of a Ballot Sets report generated with the Empty Columns option selected. In this example, the Import ID and Export ID columns are blank. By default, reports do not show empty columns.

Clear County General Election Ballot Sets										Nov 26, 2019 1:15:37 PM Page 1 of 1
Sort S Name eq	Short Nam e	Abbr	Card Template	Layout Style	Separate Ballo ts	Ballot Styles Co unt	Import I D	Export I D	Last Edit Time	Last Edit By
10	Standard	Standard	Standa	8.5 x 11 - 3 Column	Border	False	6		2018-11-27 20:20:16	admin@Carolyne

Figure 9-5. Example: Ballot Sets report

9.5 List of ballot proofing reports

Table 9-2 lists and describes the ballot proofing reports that are available in ClearDesign.

Table 9-2. ClearDesign ballot proofing reports

Report name	Lists
Ballot Group Styles	The number of ballot groups, splits, contests, and ballot styles for each ballot group style in an election
Ballot Group Styles with Ballot Styles	The associated ballot style, voter group, and number of contests associated with each ballot group style used in an election
Ballot Group Styles with Contests	The contests for each district in each ballot group style
Ballot Group Styles with Splits	The precincts and splits in each ballot group style in the election
Ballot Groups	The number of splits, contests, and ballots for each ballot group
Ballot Groups with Ballots	The ballot, contest count, and voter group for each ballot group in the election
Ballot Groups with Contests	The contests in each ballot group in the election
Ballot Groups with Splits	The precincts and splits in each ballot group in the election

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Ballot Sets	The card template and layout style used by each ballot set in the election, as well as the ballot styles count and whether or not the ballot set uses separate ballots
Ballot Sets with Ballot Styles	The ballot styles and voter groups for each ballot set in the election
Ballot Styles	Each ballot style in the election
Ballot Styles with Candidates	The contests and candidates by district and voter group for each ballot style.
Ballot Styles with Card Styles	The card styles that roll up into each ballot style
Ballot Styles with Contests	The contests that appear in each ballot style, by district
Ballot Styles with Precincts	The voter group and precincts for each ballot style
Ballot Styles with Splits	The precincts and splits in each ballot style
Ballots	All the ballots in the election
Ballots with Candidates	The contests and candidates for each ballot
Ballots with Cards	All ballots and corresponding cards
Ballots with Contests	The contests on each ballot by district
Ballots with Precincts	The voter group and precincts for each ballot
Ballots with Splits	The precincts and splits on each ballot
Candidates	The candidates in an election
Candidates with Ballot Text	The candidates and ballot text for each contest

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Card Styles	Each card style in the election
Card Styles with Candidates	All candidates in each card style by district and contest
Card Styles with Cards	The cards associated with each card styles
Card Styles with Contests	The contests in each card style by district
Card Styles with Precincts	The voter group, card sequence number, and precincts for each card style
Card Styles with Splits	The precincts and splits for each card style
Cards	All cards used in a n election
Cards with Candidates	The contests and candidates for each card
Cards with Contests	The contests on each card by district
Cards with Precincts	The voter group, card sequence number, and precincts for each card
Cards with Splits	The precincts and splits for each card
Contests	All contests in an election
Contests with Ballot Styles	The contests associated with each ballot style
Contests with Ballot Text	The ballot text for each contest by district
Contests with Ballots	The ballots where each contest appears
Contests with Candidates	The candidate for each contest by district
Contests with Card Styles	The card styles associated with each contest

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Contests with Cards	The cards on which each contest appears
Contests with Entity Styles	Contest-specific formatting that has been applied by using entity styles
Contests with Splits	The precincts and splits in each contest
Counter Groups	All counter groups in an election
Counter Group with Vote Center Categories	The name of each counter group and its associated vote center category
Device Types	Information about each device used in an elections. This report contains a Media Hash column. Use the Media Hash value to verify the ADF and BDF.
Device Types with Vote Center Categories	The name of each device type and its associated vote center category
District Categories	The district categories in an election
District Categories with Districts	Each district category and its associated district
District Categories with Unassigned Splits	Each district category in an election, the precincts in each district category, and any unassigned splits.
Districts	All districts in an election
Districts with Contests	Each contest and its associated voter group for each district category in the election
Districts with Precincts	Each district and its associated precincts for each district category in the election
Districts with Splits	The districts, precincts, and splits associated with each district category in an election

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Headers	All headers used in ballots
Headers with Ballot Text	Each header, its language, and associated ballot text
Headers with Card Styles	All card styles where each header appears
Headers with Cards	Each header, its associated voter group, ballot sets, cards, and voter groups
Headers with Entity Styles	Each header and its justification and option settings
Languages	Each language used in an election
Languages with Splits	Each language used in an election, its associated precincts, and splits
Layout Styles	The layout styles used in an election
Layout Styles with Entity Styles	Each layout style, its associated entity style type, and current format settings
Logs	The log for the current election. You can also the view election log by selecting a desired elections and clicking the Logs tab.
Precincts	All precincts in an election
Precincts with Ballots	The details of each ballot group within each precinct or split
Precincts with Candidates	Candidate information for each district and context on a precinct by precinct basis
Precincts with Cards	Details of the ballot groups in each precinct or split
Precincts with Contests	All contests in each precinct by district
Precincts with Districts (columnar)	The districts in each precinct by district category

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Precincts with Districts (tabular)	The districts in each precinct in tabular format.
Precincts with Splits	The splits in each precinct
Precincts with Voter Counts	The Voter Count for each precinct or split
Splits	The Splits and associated Ballot Groups for each precinct in the election
Splits with Ballots	The ballot used for each split and the number of contests that it contains
Splits with Candidates	Candidate information for each district and contest in a precinct on a per-split basis
Splits with Cards	Details of the ballot groups within each split, including card IDs.
Splits with Contests	The contests in each split
Splits with Districts (Columnar)	The districts and district categories for each split in columnar format
Splits with Districts (Tabular)	The districts and district categories for each split in tabular format
Splits with Languages	The languages for each split in a precinct
Splits with Voter Counts	The voter count for each split
Vote Center Categories	The identifiers (Name, Short Name, Abbr) for vote center categories, the associated devices types and counter groups, the timestamp of the last edit, and the login ID of the person who made the edit
Vote Center Categories with Counter Groups	The counter groups associated with each vote center category

Table 9-2. ClearDesign ballot proofing reports (continued)

Report name	Lists
Vote Center Categories with Device Types	The device types and ballot sets associated with each vote center category
Vote Center	All vote centers in an election
Vote Centers with Cards	The cards associated with each vote center
Vote Centers with Precincts	Vote center categories and associated precincts
Voter Groups	Details for all voter groups in an election
Voter Groups with Ballot Styles	Each voter groups, the associate ballot sets, and ballot names
Voter Groups with Ballot Text	Each voter group, the ballot text, and language of the text
Voter Groups with Candidates	Each voter group, the candidates in that voter group, the contest, and contest voter group
Voter Groups with Contests	Each voter group, the associated contests, and district of each contest.

9.6 Categories of ballot proofing reports

Table 9-3 lists ballot proofing reports according to category and the number of reports in each category.

Table 9-3. Categories of ballot proofing reports

Category	Number of reports in this category
Ballot Group Styles	4
Ballot Groups	4
Ballot Sets	2
Ballot Styles	6
Ballots	6
Candidates	2
Card Styles	6
Cards	5
Contests	9
Counter Group	2
Device Types	3
District Categories	3
Districts	4
Headers	5
Languages	2
Layout Styles	2
Logs	1
Precincts	9
Splits	9
Vote Center	3
Vote Center Categories	3

Table 9-3. Categories of ballot proofing reports (continued)

Category	Number of reports in this category
Voter Group	6
TOTAL REPORTS	96

Chapter 10. Logs

This chapter describes ClearDesign logs.

10.1 Types of ClearDesign Logs

ClearDesign maintains the following read-only logs.

Table 10-1. Types of ClearDesign logs

Log type	Records the following
Election	User actions, such as adding items or deleting them, for each election, starting with election creation. ClearDesign enables you to view the logged events associated with each individual election.
Entity	User actions for an individual entity, such as creating or editing the entity.
System	User-access and administrative exceptions across all elections in the ClearDesign system. The system log also tracks functional updates and changes to the election database. The <i>ClearDesign Administration Guide</i> describes the System log.

The layout and functionality of all Logs tab are similar.

10.2 Permission for viewing logs

To access ClearDesign logs, the role assigned to your username must have the Log View permission enabled. For information about roles, permissions, and the system log, see the *ClearDesign Administration Guide*.

10.3 Viewing a log for an individual election

This topic assumes that the role assigned to your username has the Log View permission enabled.

To view an election log:

1. From the Administration menu in the navigation page, select **Elections**.
The Election tab appears in the content pane.
2. From the Elections view, click to select an individual election.
3. Do one of the following:
 - From the Administration menu in the navigation pane, select **Logs**.
 - From the content pane, select the Logs tab.

The Logs tab for the selected election appears in the content pane. Figure 10-1 shows an example of the top portion of the Logs tab for an election. The Log tab is a list view where each row represents is an event record.

Logs				
Start Date	12/24/2019	End Date	01/23/2020	Limit 1000
Severity	Info	Entity Types	All	Filter
				Clear Election Log
				Search:
				Copy PDF Excel
ID	Date Time	Severity	Message	
1114	2020-01-22 18:30:40	Info	User prompted; Backup Election - Backup files use a validation code to ensure the contents have not changed	
1115	2020-01-22 18:31:23	Info	Language: Spanish added	
1446	2020-01-22 18:32:00	Info	Language: Vietnamese added	
1777	2020-01-22 19:06:05	Info	User prompted; Backup Election - Backup files use a validation code to ensure the contents have not changed	
1778	2020-01-22 19:09:05	Info	User prompted; Clear Election Logs - This action will download a full election log backup to your computer and then clear the existing logs from the database. Do you want to proceed?	

Figure 10-1. Election log (partial view)

Buttons available from the Election log

As with all list views, you can use the buttons at the top of the screen to

- Show or hide columns
- Copy or print the contents
- Export the contents to a PDF, Excel, or CSV file

Backing up and clearing the election log

To back up and clear the election log, click **Clear Election Log**.

ClearDesign displays the following dialog (Figure 10-2).

Clear Election Logs

This action will download a full election log backup to your computer and then clear the existing logs from the database. Do you want to proceed?

OK
Close

Figure 10-2. Clear Election Log dialog

10.4 Filtering log records

The tab containing a log has several filter fields for displaying events that meet specified criteria. Table 10-2 describes these filter fields. After you fill in the fields, click the **Filter** button to display the desired results.

Table 10-2. Filters for log events

Filter	Description						
Start Date End Date	Indicate a date range for retrieving event records. The Start Date must be earlier or the same as the End Date. When filtering by dates and no entries appear in the results, the date range is too restrictive, and the available log entries fall outside the specified range. To display all potential log entries, enter the following: • Start Date: the system installation date or a date preceding the installation date. • End Date: the current date						
Limit	Specifies the number of records to retrieve. <i>Example:</i> If you specify a Limit of 200, ClearDesign displays the first 200 records that meet all the filter criteria.						
Severity	Enables filtering of election records according to level of severity. The Severity drop-down list displays the severity levels in the following hierarchy: <table> <tr> <td>1. Exception</td><td>4. Info</td></tr> <tr> <td>2. Error</td><td>5. Detail</td></tr> <tr> <td>3. Warning</td><td>6. Tracing</td></tr> </table> ClearDesign displays all records of the selected Severity level and lower in the hierarchy. <i>Example:</i> If you select a Severity level of (3) Warning, ClearDesign retrieves records having Severity levels of: (3) Warning (2) Error (1) Exception.	1. Exception	4. Info	2. Error	5. Detail	3. Warning	6. Tracing
1. Exception	4. Info						
2. Error	5. Detail						
3. Warning	6. Tracing						
Entity types	A drop-down of the entity types contained in the log. If a given entity type does not appear in the drop-down list, the log for the election does not contain any records for that entity type. The default Entity Type selection is All.						

10.5 Searching for log records

The Search field enables you to enter a string. ClearDesign retrieves records containing the specified string.

Example: Enter the string **undervote** to retrieve all records containing this string.

10.6 Printing, copying, and saving a log

Use the standard buttons in the top corner of the screen to copy, print, or save a log in a format such as PDF, Excel, or CSV.

Appendix A. Supported data import formats

ClearDesign supports the following data-import formats.

- Ballot definition file (BDF and BDFx), which is a Clear Ballot-proprietary format
 -  Import a BDF only to verify election data. Do not use the BDF as the basis for developing a new election.
- Colorado SCORE system (GEMS standard import)
- Global Election Management Systems (GEMS)
- North Carolina Statewide Elections Information Management System (SEIMS)
- Oregon OCVR (Unity format)
- Vermont State Export
- Washington Election Information Managements Systems (EIMS) format

For details on the formats for the state of Washington, contact the state election officials.