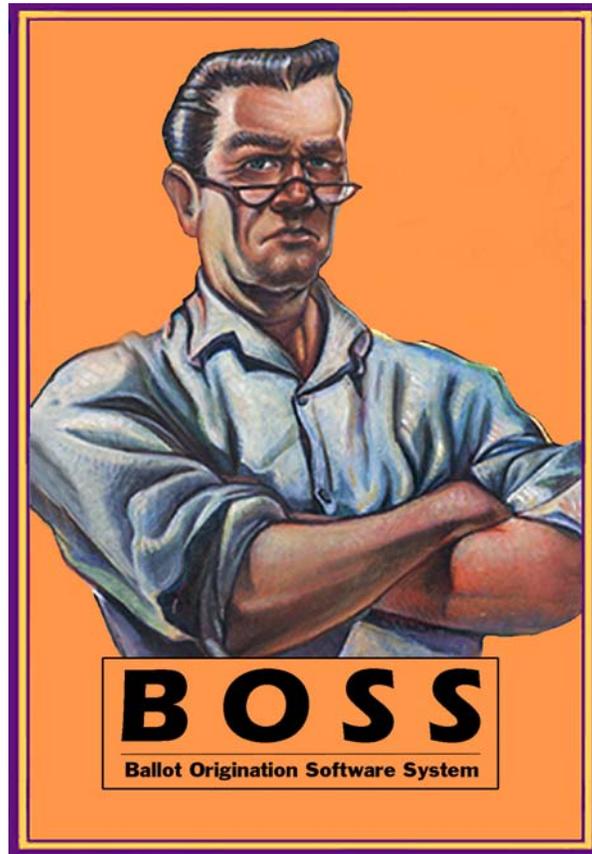


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# BOSS Training Manual

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Hart Voting System  
System Version 6.2

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Hart InterCivic, Inc.  
P.O. Box 80649  
Austin, TX 78708  
Help Desk Telephone: 866.ASK.HART/866.275.4273  
Fax: 800.831.1485  
Help Desk email: [eSlateSupport@hartic.com](mailto:eSlateSupport@hartic.com)  
Help Desk URL: <http://hartsupport.hartic.com>

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# Chapter 1

## Getting Started

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### Introduction

#### **What is BOSS?**

Ballot Origination Software System (BOSS) is a software application that creates electronic ballot styles based on jurisdictional and election-specific information. When BOSS generates electronic ballot styles, they are stored in a single data file that contains all information necessary to conduct the election at any polling place. Once the ballot is generated, the BOSS database is locked and no further changes can be made to the election data. This preserves the integrity of the data file.

After ballot generation, BOSS writes the election data file to PC card memory devices called Mobile Ballot Boxes (MBBs), which are transported to various polling places throughout the jurisdiction. MBBs can be used in any polling place because each MBB contains the same election data file.

MBBs are used to configure the Hart polling place components, which include the eScan paper ballot scanner, Judge's Booth Controller (JBC) and eSlate voting units. In addition to supplying data required to display ballots, MBBs also store Cast Vote Records (CVRs) from each completed ballot. MBBs are also used to configure Ballot Now for paper ballot printing and processing.

The BOSS election database is also used to initialize a tabulation database in the Tally software application. Tally reads and tabulates CVRs from polling place MBBs and/or Ballot Now MBBs, so you can report election results.

#### **This Document**

This Document is a training manual designed to guide operator training, and it is meant for use in conjunction with the *BOSS Operations Manual*. This training manual is intended for both initial training with Hart InterCivic training specialists and as a reference to supplement the operations manual once training is complete.

- All steps that refer to a window, field, button, menu, or menu item on the display have the reference in bold (e.g., **Save**, **Close**, **OK**), unless referring to a table or list.
- All steps that refer to a key on the keyboard have the key underlined (e.g., Ctrl, Shift, Enter).
- The word “click” refers to a left click with the mouse unless otherwise stated.
- All report titles are referred to in quotation marks, (e.g., “Ballot Content Proof”), unless referring to a table or list.

**See:** Refers to a cross-reference for more information regarding the topic.

**Note:** Refers to a suggestion.

**Tip(s):** Refers to an advanced user tip.

 Refers to a warning or caution.

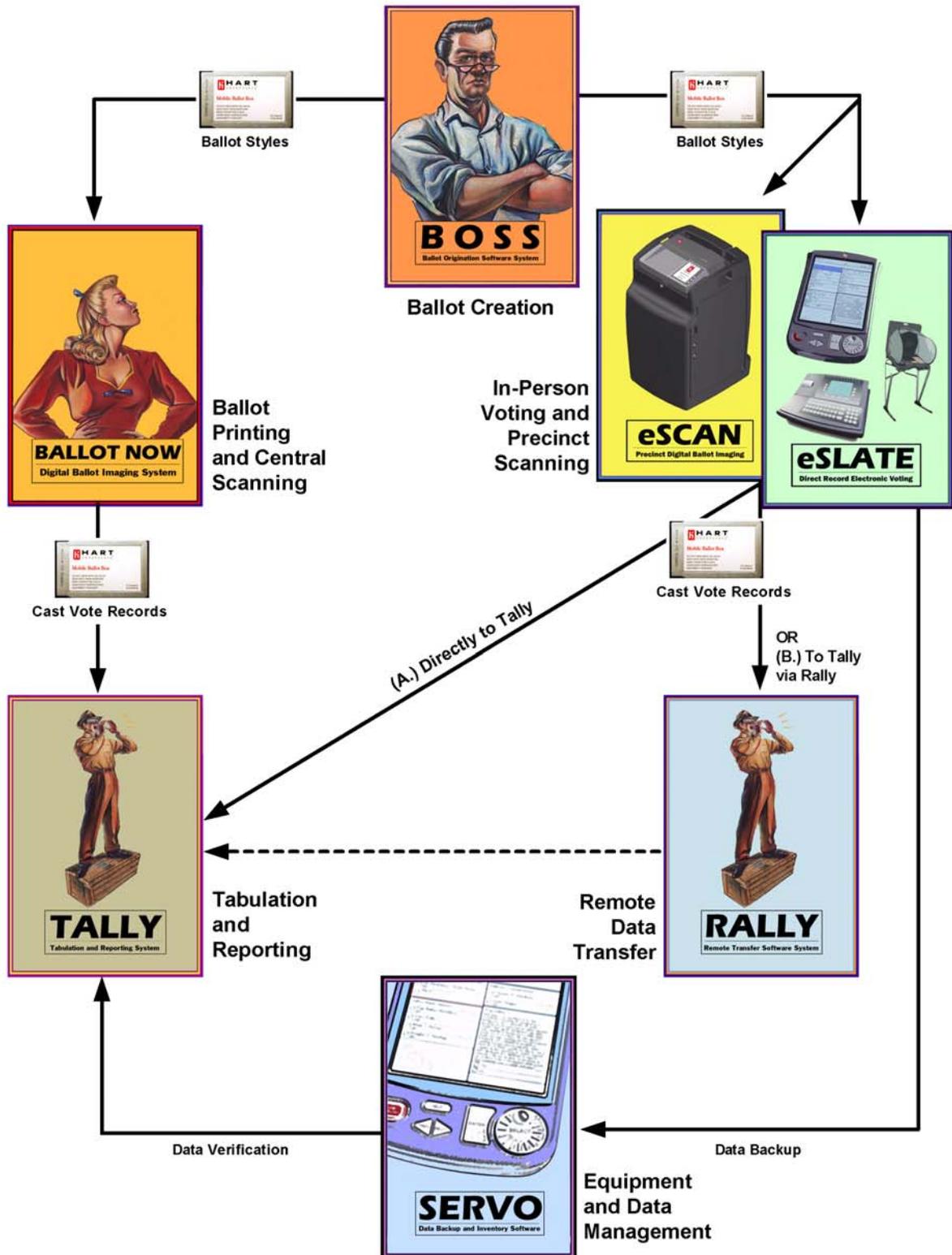
 Refers to steps that are unique to creating a primary election. These steps vary from those for creating a general or special election.

## **BOSS Operator Course Objectives**

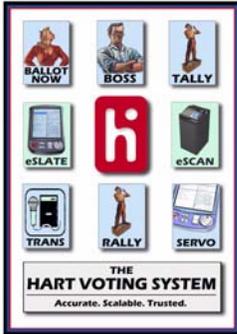
In the course associated with this document, you will:

- Manually input data to create an election database in BOSS
- Create an election database via importing data into BOSS
- Use TRANS to record audio for DAU eSlate use
- Proofread reports and ballot previews
- Create ballot media
- Practice secure database management
- Finalize a BOSS database for Tally

# Hart Voting System Data Flowchart



# Hart Voting System Security Features

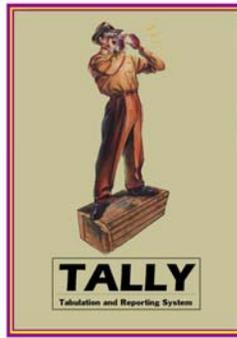


## SECURITY FEATURES

- Critical data is encrypted
- An eCM is required for crucial functions
- Two-factor authentication is required
  1. Something you have - an eCM
  2. Something you know - the PIN
- A matching signing key is required
- Secure Sockets Layer (SSL) certificates are applied whenever communications between applications occurs
- User actions are logged in persistent audit trails
- Passwords are never stored "in the clear"
- There are no covert channels of access



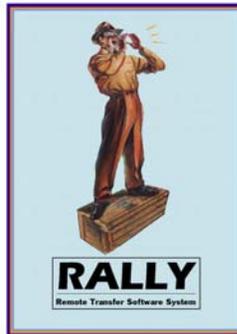
- eCM required to accept generated ballot
- Signing key written to MBB



- eCM required to read first MBB per session
- SSL certificate required to communicate with Rally



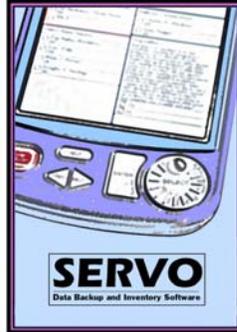
- eCM required to read or close MBB
- SSL certificate required for client-server communication



- eCM required to read first MBB per session
- SSL certificate required to communicate with Tally



- Signing key from JBC and eScan must match MBB
- Start-up, Open Polls, Close Polls, and Admin passwords required

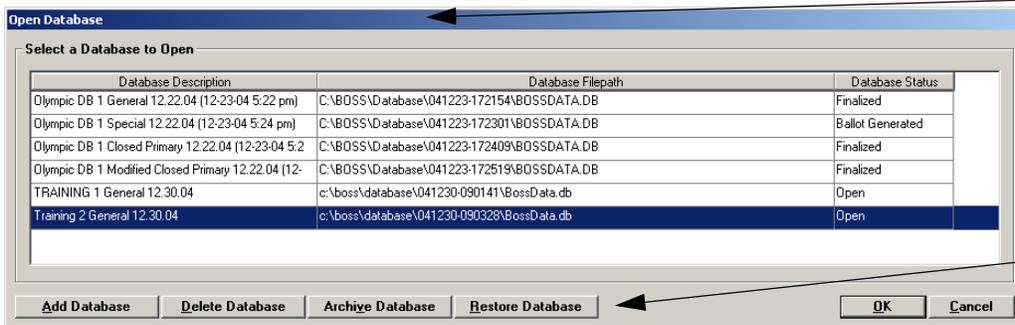


- eCM required to:
- Transfer signing key to each JBC and eScan
  - Create Event
  - Create Recount MBB
  - Create Recovery MBB

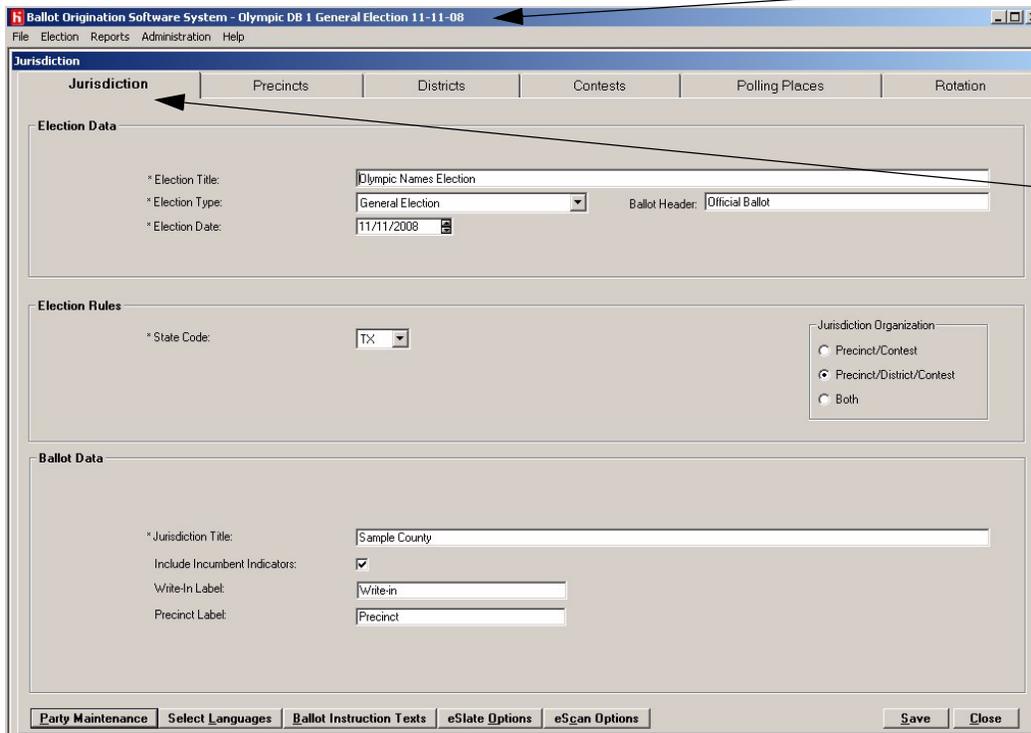
# BOSS Windows



- **About BOSS** window showing the application version information
- If the Release number does not match your state-certified version, contact Hart InterCivic immediately.
- If the words “Not Certified” display, contact Hart InterCivic immediately.



- **Open Database** window showing BOSS database list
- Database Description
- Database Filepath
- Database Status
- Available Actions



- **Ballot Origination Software System** window with title bar showing Database Description of selected database
- Active window and tab

## BOSS Menus

These menus are available in the BOSS menu bar. A brief explanation of each menu item follows:

### File Menu

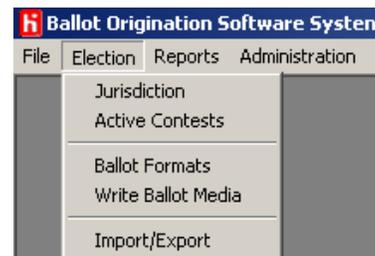
- Navigate to **Open Database** window
- Exit BOSS
- Identifies window currently open



### Election Menu

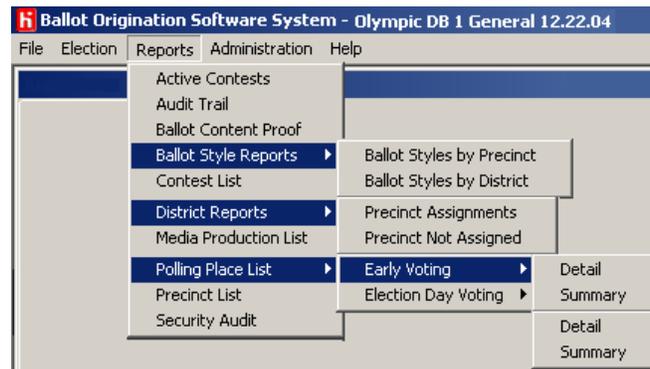
Navigate to

- **Jurisdiction** window
- **Active Contests** window
- **Ballot Formats** window
- **Write Ballot Media** window
- **Import/Export** window



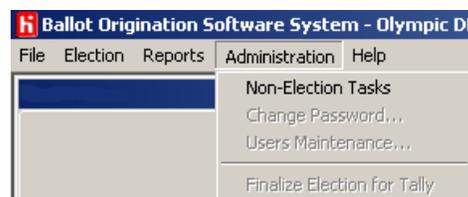
### Reports Menu

- Open variety of BOSS reports
- Arrow indicates that other detailed reports are available



### Administration Menu

- Access Non-Election Tasks (Change Password and Users Maintenance)
- Finalize Election for Tally



### Help Menu

- Access information about the BOSS application version



## Maximum Number of Characters for Fields in BOSS

The following table lists the maximum number of characters allowed in BOSS window data entry fields (organized alphabetically by window, then field).

<i>Window Name</i>	<i>Field Name</i>	<i>Maximum Characters</i>
Active Contests	Ballot Instruction Title Text	1,000
	Candidate Name	100
	Wording for Proposition Choice	30
	Custom Ballot Text	1,000
Ballot Instructions	eSlate Instruction Text	2,000
	eSlate Audio Prompt	2,000
	Ballot Now Instruction Text	2,000
Change Password	New Password	Minimum: 6 Maximum: 12
Contest Details	Contest Title	100
	Contest Description	1,000
	Number of Valid Choices	2 digits
	Number of Write-Ins	2 digits, not to exceed number of valid choices
Create Database	New Database Description	50
Details for Candidate	Candidate Details	50 per row
eScan Options	eScan Passwords	6 numbers
eSlate Options	eSlate Passwords	6 numbers and/or UPPERCASE letters
Instruction Text	Instruction Text	500
Jurisdiction - Contests tab	Contest Title	100
	Contest Description	1,000
Jurisdiction - Districts tab	District Name	1,000
Jurisdiction - Jurisdiction tab	Election Title	100
	Ballot Header	100
	Jurisdiction Title	50
	Write-in Label	40
	Precinct Label	32
Jurisdiction - Polling Places tab	Polling Place Name	60
	Polling Place Description	60
Jurisdiction - Precinct-Level Contests tab	Contest Title	100
	Contest Description	1,000

<b>Window Name</b>	<b>Field Name</b>	<b>Maximum Characters</b>
Jurisdiction - Precincts tab	Precinct Name	15 (precinct and split combined)
	Split Name	15 (precinct and split combined)
	Enter Registered Voter Totals by Party	7 digits
New User	New User ID	Minimum: 6 Maximum: 12
	Password	Minimum: 6 Maximum: 12
Party Maintenance	Code	3
	Party Name	50
	Primary Ballot Header	100
Proposition Text	Proposition Text	5,000

## Database Management

### **BOSS Database Management**

BOSS database management includes naming the database with a convention that is user friendly; keeping track of the database status; proofreading and using BOSS reports; testing; noting the database file path for CD backup; and deleting and restoring databases. The BOSS **Open Database** window displays the Database Description, Database Filepath, and Database Status. The BOSS title bar displays the Database Description after you have selected an available database.

### **Database Naming Conventions (Database Description)**

Use a consistent naming convention. There is a limit of 50 characters in the **New Database Description** field in BOSS. Suggested convention:

<i>Description of the Database</i>	<i>Sequence Number</i>	<i>Election Type and Date</i>
TRAINING	1	Special 5.03.06
ELECTION	2	Special 5.03.06

#### *Description of the Database*

Describe the function of this database. Databases may be set up for training purposes, voter education and outreach events, or live elections. The “Description of the Database” wording may be entered in ALL CAPS to help with database identification.

#### *Sequence Number*

Election databases are live databases that are used for ballot generating, proofing from ballots, writing media, performing logic and accuracy testing, and running live elections. The sequence number indicates the iteration of the database from the original database and how many times errors were detected and the database copied forward and corrected.

For example, you created a database called “ELECTION 1 Special 5.03.03.” The “ELECTION 1 Special 5.03.06” database had errors, so you copy it forward to make corrections. “ELECTION 2 Special 5.03.06” is the second iteration of the database. Delete the original database. Only one working ELECTION database should exist at a time.

#### *Election Type and Date*

Include the election type and the date of the official Election Day; for example, “General 11.08.05.”

## Database Status

<b>Status</b>	<b>Availability</b>
Open	In this state, users with the correct security permissions can enter and edit ballot data.
Ballot Generated	In this state, the ballot has been generated and further changes to the database cannot be made. New data cannot be entered, and existing data cannot be edited. Users with the correct security permissions can write MBB and audio cards.
Finalized	In this state, the election has been locked and is available for Tally processing. Changes to the database cannot be made. Media cards cannot be written.

## Proofreading

Proofreading includes checking BOSS reports for errors in spelling and assignments as well as checking ballot proofs for errors. English content can be proofed from reports. After generating ballot previews, other languages can be proofed from the ballot preview printouts.

### *Proofreading the Reports*

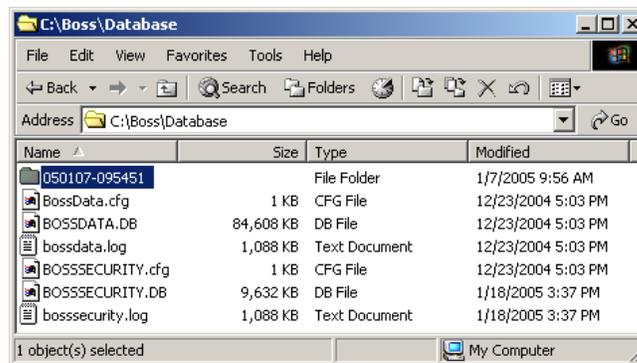
<b>Report</b>	<b>Availability</b>	<b>Proofreading Function</b>
Active Contests Options List	All db statuses	Check all election data for spelling and correct candidate/option assignments to contests
Contest List with Details	All db statuses	Check contest-precinct assignments
Assigned Precinct (District Report)	All db statuses	Check precinct-district assignments
Ballot Content Proof	Available after ballot is generated	Check ballot content per style, including precincts assigned and contests, but not including contest options
Ballot Style List by Precinct	Available after ballot is generated	Check precinct assignments to ballot styles
Ballot Style List by District	Available after ballot is generated	Check district AND precinct assignments to ballot styles

## Testing

Logic and Accuracy testing (L&A, or LAT) is testing of the accuracy of the tabulation system compared to the input on the voting device. Logic and accuracy testing should take place before going live with an election, including Early and Absentee voting. Follow federal, state, and local guidelines for logic and accuracy testing. Refer to the Tally and Support Procedures documents for more information on logic and accuracy testing and functionality testing (testing of the hardware functionality). Logic and accuracy testing is done from the BOSS ELECTION database that will be used for the live election and the Tally TEST database.

## Database File Path

The database file path records the directory for the BossData.db database file. All BOSS databases include this file name in a unique folder. Each folder is named with the Year, Month, Day – Hour, Minute, Second (24-hour clock) that the database was created. For example, database folder “050107-095451” was created on January 7, 2005 at 9:54:51 a.m. The file path to each folder is also in BOSS in the **Open Database** window. Each numbered BOSS folder includes BossData.db, BossData.cfg, and BossData.log files.



## Backing Up a BOSS Database

Back up by navigating to the BOSS database folder and copying the entire numbered folder to CD, or by clicking **Archive Database** in the **Open Database** window. The archive function saves only the original BOSS database (BossData.db) and database configuration (BossData.cfg) files to a new location, not the entire numbered folder.

Back up the numbered BOSS database folder (or click **Archive Database** in BOSS), and export all data:

- Immediately before exporting text for translation
- After importing translated text and audio
- After completing all proofreading and before generating the ballot
- After generating the ballot and writing media, but before finalizing the database
- After finalizing the database

### See:

“Appendix D: Backing Up Election Databases” on page 113.

## Deleting a BOSS Database

Delete BOSS databases that were used for practice or testing purposes. Delete databases that contained errors, after copying these databases forward to correct errors. Once an election is completed, and after an appropriate (federally or locally mandated) waiting period has passed, election databases may be deleted in order to save hard drive space on the PC.

To delete a BOSS database, take note of the database file path in the **Open Database** window, and then click the **Delete Database** button to delete the database from the window. Next, exit BOSS, navigate to the numbered folder indicated in the database file path, and delete the numbered database folder.

## Restoring a BOSS Database

A backed-up or archived BOSS database, with configuration file, can be restored into the BOSS database directory structure. This function is useful for bringing in a BOSS database created on a separate BOSS PC or for bringing in a backed-up BOSS database for use as a template for an election similar to a past election. This functionality can also provide emergency backup to a previous state of the database if the BOSS database is archived before generating and before finalizing, for example.

*When the database is restored:*

- BOSS creates a new database folder named with current date and time for the restored database.
- The restored database appears in the **Open Database** window's list of available databases.
- The restored database exists in the state it was in when archived (e.g., a finalized database will remain finalized).

## Establishing BOSS User Permissions

### First Login After Installation of BOSS

The following steps must be completed at the first startup of BOSS after installation. If this has already been completed during installation and testing by Hart InterCivic, you should create local users and permissions and delete those users added during installation and testing.

1. Start BOSS from either the desktop shortcut or the **Start** button on the Windows taskbar.
2. In the **User ID** field enter a User ID for an administrator who will have ALL authority in BOSS. Field limit is 6-12 letters or numbers, case sensitive.
3. In the **Password** and **Confirm Password** fields, enter the password for the Administrative User. Field limit is 6-12 letters or numbers, case sensitive.
4. Click the **OK** button.

### Creating Additional Users

1. Go to the **Administration** menu and click **Non-Election Tasks**.
2. Click **Yes** to log off the current database.
3. Go to the **Administration** menu and click **Users Maintenance**.
4. Click the **Add User** button and enter a new User ID and Password.
5. Select the appropriate permission setting and click **OK**.

### BOSS User Permissions

<b>BOSS Function</b>	<b>UPDATE</b>	<b>VIEW</b>	<b>ALL</b>
Create Databases	No	No	Yes
Change Current User Password	Yes	Yes	Yes
Delete Databases	No	No	Yes
Modify Databases	Yes	No	Yes
Users Maintenance	No	No	Yes
View and Print Election Reports	Yes	Yes	Yes
View and Print Security Audit	No	No	Yes

## Establishing Election Types and Organization Within BOSS

In BOSS, each ballot style is automatically created in the background as precincts and split precincts are assigned to districts, and then districts are assigned to contests. More ballot styles are created if ballot rotation is used. During a primary election, ballot styles may also be associated with each party and/or with cross-party voting in a modified closed primary. The number of ballot styles in an election is determined by the number of unique contest combinations available to voters.

Once you generate the ballot in BOSS, you can view the ballot styles and their associated precincts in the **Ballot Generation/Preview** window unless ballot rotation is used. You can also view the “Ballot Content Proof”, “Ballot Style by District”, and “Ballot Style by Precinct” reports after generating.

It is important to plan the organization of ballots in BOSS so that the content is correct, tabulation reporting is accurate, and the ballot layout is user-friendly.

### General Information

- A Split Precinct (“Split”) is the smallest political division in BOSS.
- A Precinct is a grouping, usually associated with a geographic area, in a jurisdiction.
- A District is a combination of precincts and/or splits.
- There is no functional difference between an election identified as “Special” and one identified as “General” in BOSS.
- When you select a state in the **State Code** field of the Jurisdiction tab, BOSS defines state-specific requirements such as the handling of candidate cross-filing.

#### See:

“Appendix A: State-Specific Behavior” in the *BOSS Operations Manual* for the election requirements of each state.

### Party Maintenance

- It is not necessary to associate a party name with a party code, unless that party is a straight party contest option.
- In a general election, although registered voters are entered into BOSS by party, voter turnout results are calculated against the total number of voters (i.e., aggregate) in a split or precinct.

Party Code	Party Name
NP	
BLU	Blue
RED	Red
YEL	Yellow
ORN	Orange

Party Maintenance Window for a General Election

* Code	Party Name	Primary Ballot Header
NP		Official Ballot
BLU		Blue Ballot
RED		Red Ballot
YEL		Yellow Ballot
ORN		Orange Ballot

### Party Maintenance Window for a Closed Primary Election

- Party Code:** The party code only helps you organize the election and does not appear on the ballot.
- Party Name:** The party name appears on eSlate and Ballot Now ballots below the candidate's name.
- Primary Ballot Header:** This text appears on the first line of a primary ballot.
- The "NP" party in BOSS is a default party code that cannot be deleted.
  - The "NP" party in BOSS is always associated with a nonpartisan group of voters (party).
  - In a nonpartisan election, all candidates are assigned to the "NP" party code, but no party name is assigned to that code, so only the candidate names appear on the ballot.
  - You can overwrite the "NP" party code by highlighting the party code and typing in another nonpartisan-associated code. Hart InterCivic recommends that you leave the "NP" party code in your database even if you are not using it to avoid complications when setting up a Modified Closed Primary Election.
  - In a partisan General Election, you can ignore (recommended) or overwrite the "NP" party code, but you cannot delete it.
  - In a General Election with both partisan and nonpartisan contests, the "NP" party should be associated with nonpartisan candidates. Assigning a nonpartisan party name in association with the code is optional.

### Primary Elections

In primary elections, use the **Contest Description** field in the **Jurisdiction** window to enter party information per contest, as contest names may be the same for each party. This is an organizational tool that will not appear on the ballot. Also, assign the **Primary Party Affiliation** field correctly in the **Contest Details** window. This is an organizational tool that will determine party associations, but will not appear on the ballot.

### Closed Primaries

There are two types of closed primary elections that can be organized in BOSS:

- A closed primary where each JBC is assigned to a specific party and only those ballot styles will be available. Polling places may be shared, but each JBC will be party-specific.
- A closed primary where all parties share the JBCs, and the poll worker must choose the voter's party. After choosing the voter's precinct on the JBC, if applicable, the poll worker chooses the voter's party affiliation. Parties will be listed in the same order as presented in the BOSS **Party Maintenance** window.

## Modified Closed Primary

In a modified closed primary, parties can choose to let a non-party-affiliated population vote on party-specific contests as long as the “NP” code is associated with the nonpartisan population. For example, the nonpartisan population called “Decline to State” must be associated with the “NP” code in the **Party Maintenance** window. All parties share the JBCs, and the poll worker must choose the voter’s party.

After choosing the voter’s precinct on the JBC, if applicable, the poll worker chooses the voter’s party affiliation. Parties and nonpartisan combinations will be listed in the same order as presented in the BOSS **Party Maintenance** window. This is also the case if the “NP”-code-associated-party has been moved; however, the first nonpartisan combination will appear in position “N”, where “N” = the total number of political parties defined in the **Party Maintenance** window.

In modified closed primary elections, click the **Include in Non-Partisan Ballots** checkbox in the **Contest Details** window to make partisan contests available to nonpartisan voters.

## Modified Open Primary

In a modified open primary (pick-a-party), the voter first chooses a party on his or her ballot, and then has only those associated contests available to vote because of associated dependencies. This election type is organized in BOSS as if it were a general or special election.

## Cross-filed Candidates in Straight Party Contests

The state of Pennsylvania allows candidate cross-filing, meaning a candidate name can be used more than once in a contest when associated with different political parties.

In contests with cross-filed candidates that allow two or more choices, only one vote can be assigned to each cross-filed candidate. In Ballot Now, a contest with two votes for the same candidate must be resolved manually as an overvote. On the eSlate, a contest with two votes for the same candidate activates the Ballot Information screen, which warns that the voter has attempted to select a candidate whose cross-file alternative has been previously selected.

## Ballot Formatting

- Column and page forces can be achieved separately for Ballot Now and eSlate ballot formats in the **Contest Details** window. It is important to proofread the ballot style previews in order to best determine where to use column and page forces.
- Including Ballot Text can be an effective tool to help voters navigate the ballot.
- Using forced returns can be an effective tool to help voters navigate the ballot.

**See:**

“Appendix C: Hart Voting System Software User Tips” on page 109 for more information on forced returns.

## Ballot Images

If required by state and local regulations, images can be added to contests and ballot text in BOSS. Image-enabled templates must be available in BOSS in order for images to appear on the ballots. To obtain these templates, contact Hart InterCivic.

Images that appear on a ballot are associated with ballot elements entered in BOSS. For example, adding an image to a proposition contest in BOSS will display that image in the title of that proposition contest. The ballot elements that may be associated with images and their positions are shown on the following page. Images cannot be associated with candidates.

<b>Location</b>	<b>Ballot Element</b>	<b>Explanation</b>
A	Ballot Header	Party image for primary ballots. OR NP Party image for non-primary elections.
B	Straight Party Title	Appears in the straight party title
C	Straight Party Option	Image associated with party
D	Straight Party Option	Image associated with party
E	Ballot Text	Appears below the ballot text
F	Proposition Title	Appears in the proposition title
G	Candidate Title	Appears in the candidate title
H	Ballot Instruction	Appears below the ballot instruction text

A

This is the ballot header  
Image Election  
Image Test  
November 02, 2006

Page 1 / 1      Precinct aaa

**Straight Party Contest**

B

**The Red Party**

C

**The Blue Party**

D

**This is Ballot Text (not instruction)**

E

**Proposition Contest**

F

YES

NO

MAYBE

**Candidate Contest**

G

**Candidate A**  
The Red Party

**Candidate B**  
The Blue Blue Party

**Candidate C**  
The Red Party

**Candidate D**  
The Blue Blue Party

**This is ballot instruction text**  
eSlate Ballot Instruction Text

H

## Image Requirements

BOSS only loads image files in bitmap (.bmp) format. The bitmap image colors are converted to a predefined palette. The images are not scaled when placed on the ballot. The size of the image when it is loaded into BOSS will determine the size on the ballot.

## Image Palette

The images displayed on the eSlate use the standard Windows color palette of 256 colors. BOSS will convert images for eSlate to this color palette if necessary, but Hart recommends using an external image editing application. Images for paper ballots use a grayscale palette of 256 colors. BOSS will convert images for paper ballots to this palette.

## Image Size

Image size is determined by the size of the image loaded in BOSS. The image is not scaled for display on the ballot. The resolution of the eSlate images should be 72 dots per inch. The resolution of the image for paper ballots should be 254 dots per inch. BOSS does not enforce the resolution, but failure to follow these recommendations may result in ballot graphics that are larger or smaller than expected.

The position of the image is determined by the template selected for ballot generation. Use the table of recommended image sizes below to scale images before loading into BOSS. If the images are larger than the recommended size, they may overlap other ballot elements. Images are arranged in the center of the available space if they are smaller than the recommend size.

The following table provides recommended image sizes in pixels. After loading ballot images, view the images in the BOSS ballot preview window. If changes are necessary, resize the images outside of BOSS and reload them.

<i>Location</i>	<i>Ballot Element</i>	<i>Image Size for eSlate</i>	<i>Image Size for Paper Ballot</i>
A	Ballot Header	100 W x 100 H	200 W x 200 H
B	Straight Party Title	250 W	600 W, 400 W
C	Straight Party Option	20 W x 20 H	50 W x 50 H
D	Straight Party Option	20 W x 20 H	50 W x 50 H
E	Ballot Text	250 W	600 W
F	Proposition Title	250 W	600 W
G	Candidate Title	250 W	600 W
H	Ballot Instruction	250 W	600 W

## Transparency

All eSlate images are assumed to be transparent. The pixel in the upper left corner of the image is used to determine the transparent color. All pixels in the image that have the transparent color will be displayed as the background color. The preview does *not* show the transparency. Paper ballots do not use transparency. All pixels from the paper ballot images are displayed.

## Loading Images in BOSS

To load an image from the **Party Maintenance** or **Contest Details** window:

1. Select the party or contest for which you want to associate an image.
2. Click the **Add Image** button.
3. Choose the language of the ballot and the device (eSlate or paper) where the ballot will appear.
4. Click the **Browse** button, navigate to the image, select the image, and click **Open**.
5. Click the **Load** button and click **Close**.

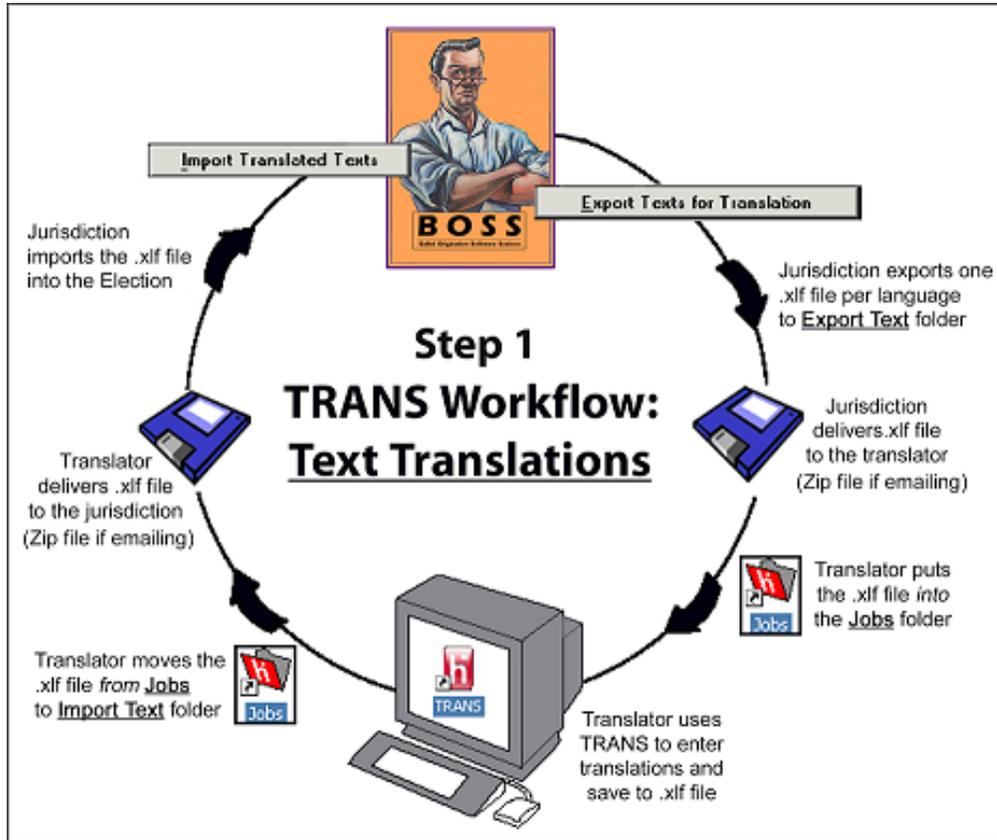
### Note:

To load an image in the Ballot Header, contact Hart Intercivic for the appropriate template.

### See:

The *BOSS Operations Manual* for information about image placement on primary ballots and for more information about adding images to ballots.

## Translating Foreign Language Ballot Text



The windows in BOSS allow for data entry in English only. If the target election requires ballots in other languages, you must use TRANS to add foreign language translations and to record audio associated with that text. TRANS is the Hart Voting System utility for translation, recording, and audio normalization.

Follow these steps in order to translate ballot text:

1. The foreign language must be selected in the **Select Language Details** window in order for any language other than English to appear on ballots.
2. Complete the English language ballot either in BOSS or via ASCII data imports on the **Import** tab of the **Import/Export** window.
3. Proofread the reports and ballot preview screens in BOSS.
4. Go to the **Election** menu and click **Import/Export**.
5. Click the **Translation and Recording Export/Import** tab.
6. Export English text for translation in TRANS.
7. Import the completed foreign language translated text.
  - > Foreign language text will *not* appear in the BOSS GUI, but it will appear in ballot previews.
8. If necessary, make corrections in English, then repeat the export/import foreign language process to correct the foreign language for the changed text strings and audio prompts.
9. Continue to complete audio recording using the TRANS application.

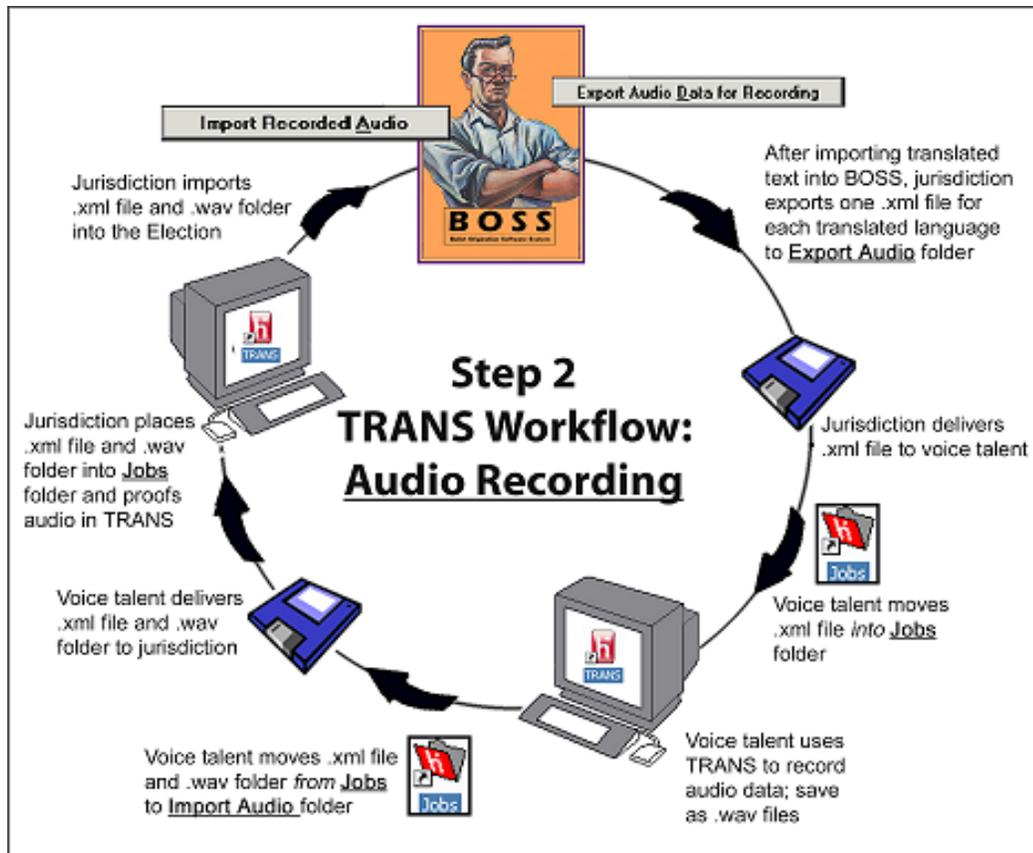


Do *not* import foreign language text in ASCII data files. Do *not* import *any* text in Unicode fonts.



After exporting text for translation, do *not* make BOSS database changes until completed text translations have been imported.

## Recording Audio



Audio for the Disabled Access Unit (DAU) user can be recorded only in the TRANS software utility. TRANS is the Hart Voting System utility for translation, recording, and audio normalization.

Follow these steps to record ballot audio:

 After exporting prompts for audio recording, do *not* make BOSS database changes until completed audio has been imported.

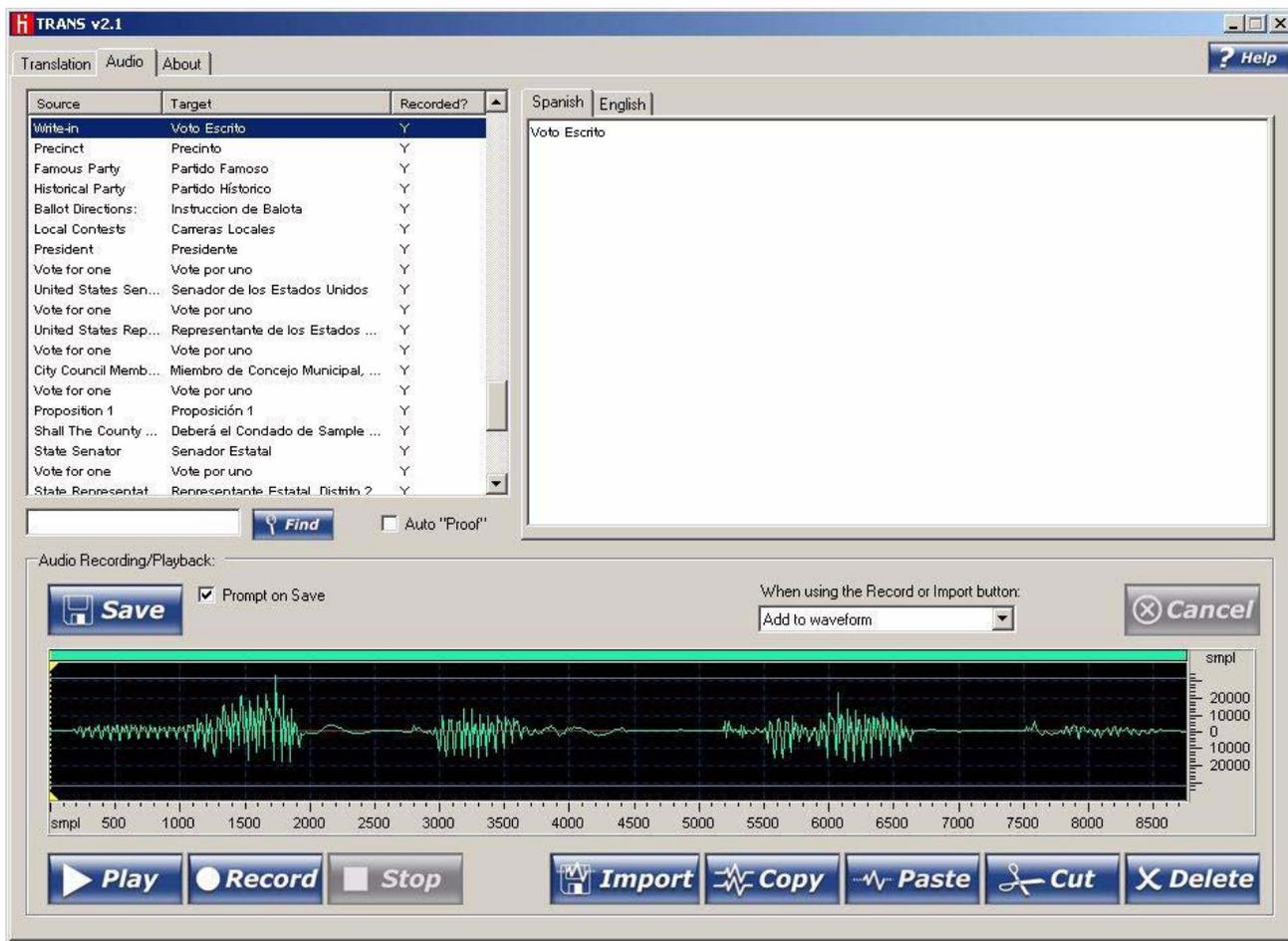
1. Complete and proof all ballot data.
2. To include foreign languages, complete foreign language text export-translate-import process.
3. Go to the **Election** menu and click **Import/Export**.
4. Click the **Translation and Recording Export/Import** tab.
5. Export English language prompts for recording in TRANS.
  - > English audio may be completed while foreign language text is being translated, as long as the original English ballot text is not changed.
6. Export foreign language prompts for recording in TRANS.
7. Import English and foreign language manifest (.xml) files.
  - > For each language there is a manifest file that serves as an index to the associated audio.
8. Select ballot templates, complete the final proofing process, and create ballot media.

## Audio Recording Best Practices



Before recording, always check and adjust PC master volume controls and microphone properties for best sound volume and quality.

- Record audio in a location that has limited background noise.
- Set up the recording station with the following, or similar, equipment in order to reduce noise while recording:
  - Handheld dynamic microphone and cable
  - Microphone tabletop stand
  - XLR female to 1/4 inch male stereo microphone input transformer
  - 1/4 inch to 1/8 inch stereo plug adapter (to computer mic port).
- After recording, check audio quality by creating a sample ballot for use in a Demonstration eSlate.



**TRANS 2.1 Audio Window with Spanish Audio Recorded**

**See:**

The *TRANS User Guide* for detailed information.

## Planning for eScan Use

eScan is the Hart Voting System precinct digital scanning device. eScan ballot content is set up in BOSS, and ballots are printed from Ballot Now. eScan can read ballots for:

- Absentee voting for all precincts in the election
- Early Voting in-person at a polling place with one or multiple precincts assigned
- Election Day voting in-person at a polling place with one or multiple precincts assigned.

If using the eScan, there are several factors to consider in BOSS:

1. eScan passwords **MUST** be defined in the **eScan Options** window, accessible through the **Jurisdiction** tab of the **Jurisdiction** window.



Although eScan cannot be operated without passwords, it is possible to generate the ballot in BOSS without defining eScan passwords. *Always remember to define eScan passwords!*

2. Before the ballot is accepted, eScan Ballot Processing permissions **MUST** be established in BOSS via the **eScan Options** window. The **Ballot Processing** permissions panel allows the BOSS user to determine *who* is authorized to place various types of mismatched eScan ballots (e.g., undervoted, overvoted, and blank ballots) into the eScan ballot box – the voter or the poll worker. Alternatively, eScan can be set to “Always Accept” undervoted, overvoted, or blank ballots. See the figure at right for the default settings.

**Ballot Processing Default Settings**

- > If the **Always Accept** option is selected for a particular type of mismatch (e.g., overvote, undervote, or blank), and the ballot contains that type of mismatch *only*, the ballot will immediately be accepted as-is, with no further notification message.
- > If the voter is authorized to accept a particular type of mismatch (**Voter Accepts**), and the ballot contains that type of mismatch *only*, eScan will display a notification message. Without further assistance from a poll worker, the voter may ignore the mismatch and cast the ballot as-is.
- > If the poll worker is authorized to accept a particular type of mismatch (**Poll Worker Accepts**), and the ballot contains that type of mismatch *only*, eScan will display a notification message. To ignore the mismatch and cast the ballot as-is, the voter must contact a poll worker for assistance.
- > If the ballot contains a mix of various mismatches (e.g., *both* undervotes *and* overvotes), and there is a mix of ballot processing permissions in place, the following rules apply:
  - \_\_\_ Poll worker assistance is required to cast the ballot if the ballot contains *any* type of mismatch for which poll worker authorization is required, regardless of other voter permissions that may exist.
  - \_\_\_ The voter may cast his or her ballot without further assistance if the ballot contains *no* mismatches that require poll worker authorization. However, if the ballot contains *any* type of mismatch that requires voter authorization, eScan displays a notification message before the ballot can be cast, regardless of other types of mismatches on the ballot that may be set to **Always Accept**.

**See:**

The *BOSS Operations Manual* for all possible ballot processing settings.

3. Ballot Now/Paper Ballot settings in BOSS apply to ALL paper ballots. Keep this in mind when:
  - > Writing Ballot Now instructions
    - \_\_\_ To write instructions, go to the **Election** menu and click **Jurisdiction**. On the **Jurisdiction** tab, click the **Ballot Instruction Texts** button and select **Ballot Now Instruction Text** in the window that appears.
  - > Selecting paper ballot templates
    - \_\_\_ To select templates, go to the **Election** menu and click **Ballot Formats**. In the **Ballot Generation/Preview** window, click the **Ballot Templates** tab.
4. In order to set up the eScan for Absentee voting, you must enter the Absentee location Polling Place ID into the eScan during device configuration. This ID is not available from BOSS reports.



Find the ABSENTEE Polling Place Description on the **Polling Places** tab of the **Jurisdiction** window *after* the ballot has been generated with paper ballot templates selected.

Jurisdiction				
Jurisdiction	Precincts	Contests	Polling Places	
<b>Polling Places and Precinct Assignments</b>				
Precinct to Polling Place Assignments for <input type="radio"/> Election Day <input checked="" type="radio"/> Early Voting				
ID	* Polling Place Name	Polling Place Description	Assigned Precincts	
2	Highland Ballot Now	none	1	
	Ballot Now	ABSENTEE		

**Tip(s):**

The Ballot Now Polling Place Name is automatically created when any paper ballot template is used to generate the ballots.

**Note:**

You can use Tally to read and tabulate write-in images from the eScan, so you may not need to hand-sort eScan ballots with write-ins. However, Tally can only recognize the write-in image when the Write-In option box on a paper ballot is marked correctly. Follow federal, state, and local guidelines for tabulating write-ins.

**See:**

The *Tally Training Manual* for information about working with write-in images in Tally.

## Planning for Demonstration eSlate Use

### *What is the Demonstration eSlate?*

The Demonstration eSlate, also known as a “demo unit,” allows voters to practice using the eSlate buttons and interface (including headphones and adaptive devices, if desired) on a functioning unit that cannot record votes. The demo unit does not require a JBC in order to display ballots because it uses a special ATA memory card that contains both ballot and audio data.

### *Creating a Demonstration eSlate Ballot in BOSS*

When creating a ballot to display on the demo unit, ensure the following:

- The **VBO Required** checkbox in the **eSlate Settings** window is selected if the demo unit will be connected to a VBO unit. If this checkbox is selected and a VBO unit is *not* connected, the eSlate functions as if a VBO unit is present.
- The first precinct in the **Polling Places** tab of the **Jurisdiction** window is associated with a polling place. The demo unit displays only the ballot style for the first precinct listed.
- For Primary Elections, the first party listed in the **Party Maintenance** window is the party whose ballot you want to display on the demo unit. The demo unit displays only the ballot style for the first party listed.
- All English audio has been recorded.
- All multi-language text has been translated and audio has been recorded, if applicable.

Once you have ensured that your demonstration ballot is correct, generate ballots using a template for the eSlate and write a demo card for each demo unit. Hart recommends that you create demo cards from a demonstration election that contains fictional, sports/famous, or historical names for candidates. You should not create demo cards from a live election database.

**Note:**

Although your eCM token and password are required to generate a ballot to use with the demo unit, you do not need to program your signing key to the demo unit in SERVO, nor must you reset the demo unit between uses.

**See:**

The *Demonstration eSlate Preparation Guide* for more information including setting up and using the demo unit.

## Planning Ballot Media Quantities

### Ballot Media to Write Per Election

Once the ballot is generated, copy the election data to MBBs and audio cards by going to the **Election** menu and clicking **Write Ballot Media**. Use the *MBB Worksheet* (MBB\_41406.xls) on your Hart CD or the following guide when planning the number of MBBs and audio cards to write for an election.

<b>Ballot Media to Write Per Election</b>	
<b>Test Mode MBBs</b>	<b>Election Mode MBBs</b>
<ul style="list-style-type: none"> <li>• 1 MBB for each JBC included in LAT</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB for each JBC included in Early Voting in person</li> </ul>
<ul style="list-style-type: none"> <li>• 1 MBB for each eScan included in LAT</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB for each JBC included in Election Day voting</li> </ul>
<ul style="list-style-type: none"> <li>• 1 MBB for each Ballot Now PC included in LAT</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB for each eScan included in Absentee Voting (by mail)</li> </ul>
<ul style="list-style-type: none"> <li>• 1 MBB for warehouse testing (optional)</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB for each eScan included in Early Voting in person</li> </ul>
<ul style="list-style-type: none"> <li>• 1 MBB for each voting system in use at the Help Desk</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB for each eScan included in Election Day voting</li> </ul>
<b>Audio Cards</b>	<ul style="list-style-type: none"> <li>• 1 MBB per election source (i.e., Absentee, Early Voting, Election Day) for each Ballot Now (Server) PC used for voting</li> </ul>
<ul style="list-style-type: none"> <li>• 1 Audio Card per DAU eSlate included in the election (Early Voting and Election Day)</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB per election source for incremental Cast Vote Record (CVR) processing (e.g., late mail) for each Ballot Now (Server) PC utilized for voting</li> </ul>
<ul style="list-style-type: none"> <li>• 1 Audio Card for warehouse testing (optional)</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB to enable SERVO to add election Event(s) for backup (This MBB can be reused as one of the JBC or eSlate recount MBBs)</li> </ul>
<ul style="list-style-type: none"> <li>• 1 Audio Card for the DAU eSlate in use at the Help Desk</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for JBC CVR recount MBBs, using SERVO, for Early Voting in person</li> </ul>
<ul style="list-style-type: none"> <li>• 10% of total as spare Audio Cards</li> <li>• Hart InterCivic recommends writing at least 10% above the number actually needed in the field as spare Audio Cards.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for JBC CVR recount MBBs, using SERVO, for Election Day in person</li> </ul>
<b>Other Ballot Media</b>	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for eSlate CVR recount MBBs, using SERVO, for Early Voting in person</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstration eSlate (Demo cards) with data similar to the live election for Voter Education and Outreach activities.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for eSlate CVR recount MBBs, using SERVO, for Election Day in person</li> </ul>
<ul style="list-style-type: none"> <li>• Training MBB and Audio Cards with data similar to the live election for poll worker training activities.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for eScan CVR recount MBBs, using SERVO, for Absentee (by mail)</li> </ul>
	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for eScan CVR recount MBBs, using SERVO, for Early Voting in person</li> </ul>
	<ul style="list-style-type: none"> <li>• 1 MBB (128 MB) per 65,000 CVRs for eScan CVR recount MBBs, using SERVO, for Election Day in person</li> </ul>
	<ul style="list-style-type: none"> <li>• 10% of total as spare Election Mode MBBs</li> <li>• Hart InterCivic recommends writing at least 10% above the number actually needed for the JBC, eScan, and/or Ballot Now units included in Absentee, Early, or Election Day voting.</li> </ul>

## MBB Capacity



Include the MBB Cast Vote Record (CVR) capacity when planning the number of MBBs required for an election.

<b>128 Megabyte ATA Format MBB Capacities:</b>	
<b>eSlate Subsystem</b>	<b>CVR Capacity of One MBB<sup>a</sup></b>
JBC	10,000 (Access Code range of 0000-9999)
Ballot Now	65,000
eScan	20,000
SERVO	65,000

a. All values are conservative estimates based on small CVR log size and multi-page ballots.

## BOSS Tasks Requiring the eSlate Cryptographic Module (eCM)



### ***What is the eCM?***

The eCM is a physical USB security device provided by Hart InterCivic. It is required for access to secure functions in the BOSS, Ballot Now, Tally, Rally, and SERVO applications. The eCM must be generated using the eCM Manager application.

### ***When is the eSlate Cryptographic Module Used?***

In a given election, the signing key on the eCM is used by the BOSS application to accept the ballot formats for the election, and a matching signing key must also be present in the eCM(s) used in the Ballot Now, Tally, Rally, and SERVO applications.

The simplest way to use an eCM is to keep the device handy (e.g., on a lanyard on your person) and to insert the eCM token into a USB port on an election PC each time that PC is being used, removing the eCM when finished.

When the eCM is accessed, Ballot Now requires the operator to enter the eCM PIN (a password selected by a jurisdiction administrator before any signing keys are generated).

In BOSS, the eCM is used to accept generated ballot format(s).

### ***eCM Management***

The eCMs should be closely managed. The number of eCMs being used for an election and their PIN(s) should be logged in a secure location. eCMs should be labeled with the election name or similar information, but *not* with the eCM Key ID or PIN. eCMs should be stored in a secure location, separate from election MBBs.

**Notes:**

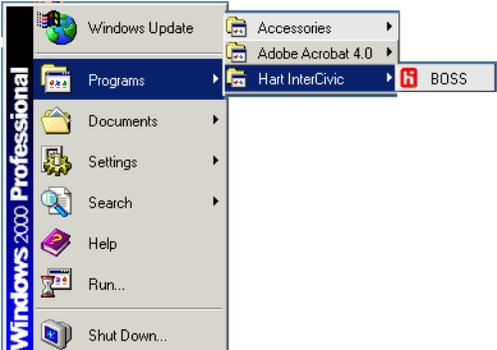
**Notes:**

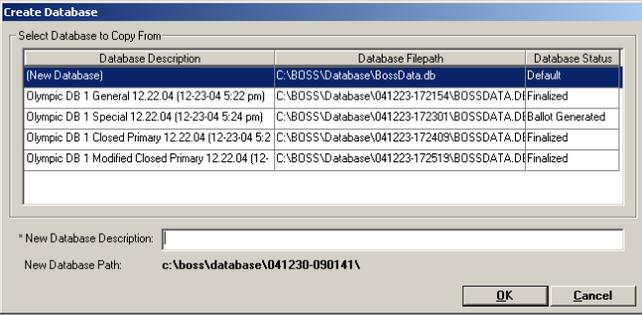
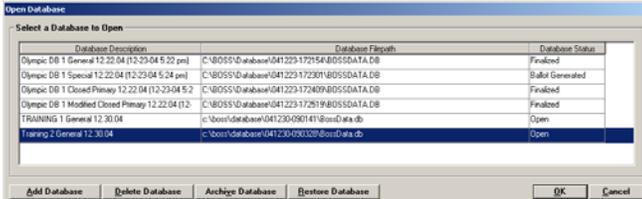
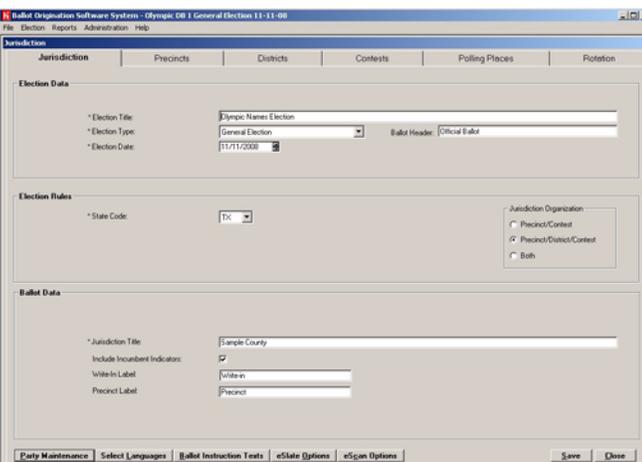


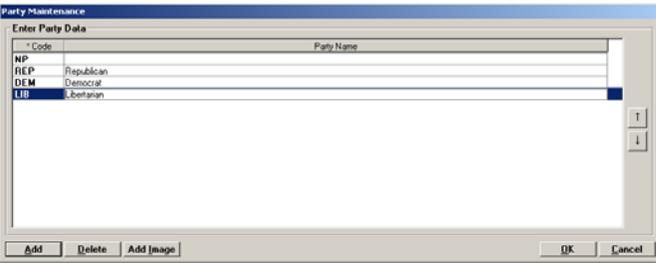
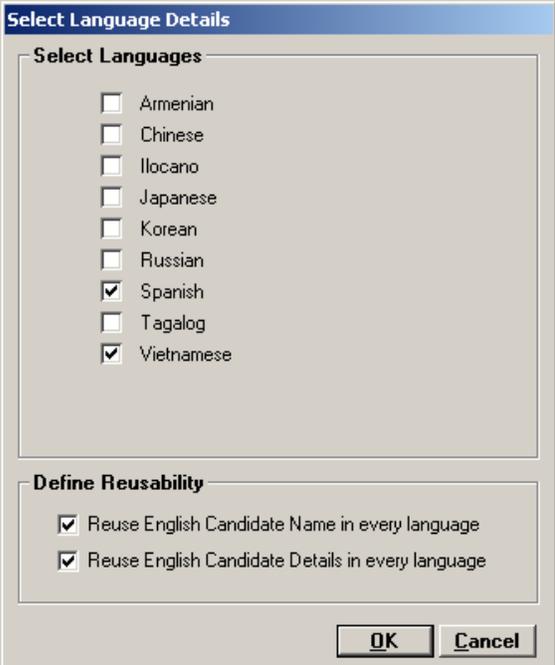
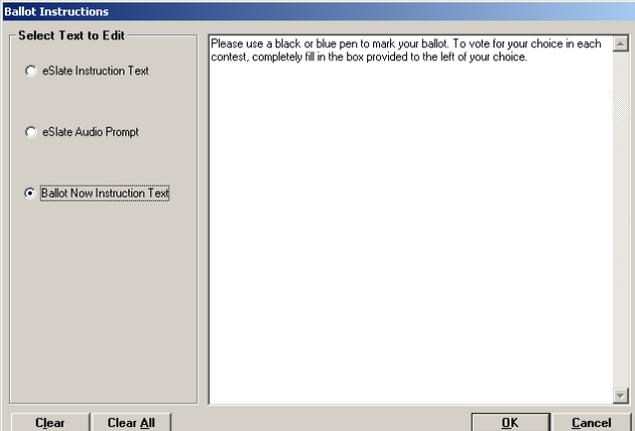
# Chapter 2

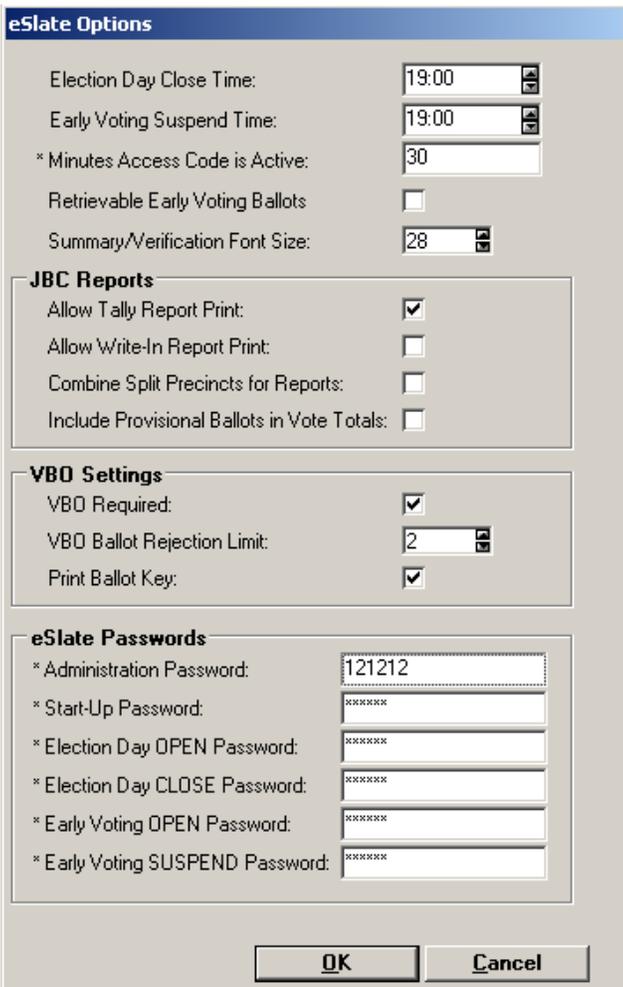
## Creating a General or Special Election

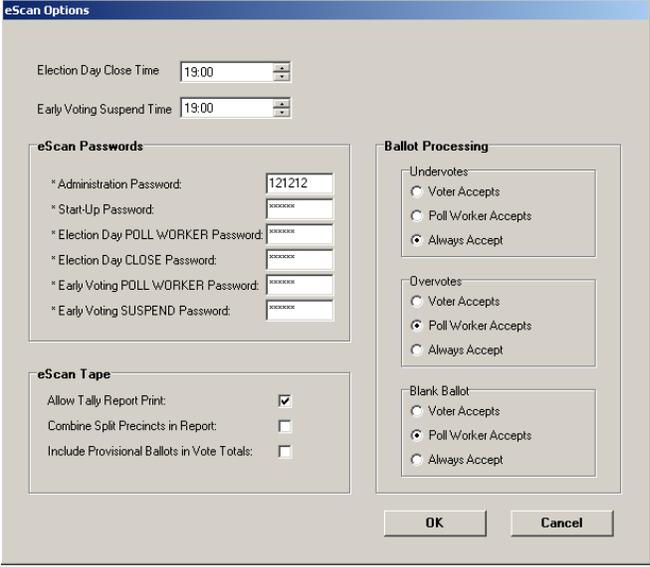
Follow the steps outlined in this chapter in order to create a General or Special election.

Steps:	Details:
<p>1. Double-click the BOSS desktop shortcut to open the application.</p> 	<p>OR Go to <b>Start/Programs/Hart InterCivic/BOSS</b></p> 
<p>2. Log in to BOSS as a user with all permissions.</p> 	
<p>3. If you haven't already done so, set up BOSS users and permission levels.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Non-Election Tasks</b>. Click <b>Yes</b>.</li> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Users Maintenance</b>.</li> </ul> <p><b>See:</b>  "Establishing BOSS User Permissions" on page 12.</p>

Steps:	Details:
<p>4. Create a BOSS database named “&lt;Description # Election Type date&gt;”.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. In the <b>Open Database</b> window, click the <b>Add Database</b> button.</li> <li><input type="checkbox"/> In the <b>Create Database</b> window that appears, select a database to copy from, and complete the <b>New Database Description</b> field with a description of the database, the sequence number, the election name, and the date.</li> <li><input type="checkbox"/> To create a blank database, copy the database from “(New Database)”.</li> <li><input type="checkbox"/> Click <b>OK</b>.</li> </ul> <p><b>See:</b> Suggested naming conventions in “Database Management” on page 9.</p>
<p>5. Open the new BOSS database.</p> 	<p>In the <b>Open Database</b> window, double-click the target database.</p>
<p>6. Define the general or special election jurisdiction information.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> When you open a database, the <b>Jurisdiction</b> tab in the <b>Jurisdiction</b> window appears.</li> <li><input type="checkbox"/> Defining Jurisdiction information includes:             <ul style="list-style-type: none"> <li>• Election Title for the header of the ballot</li> <li>• Election Type (does not appear on the ballot)</li> <li>• Election Date for the header of the ballot</li> <li>• Ballot Header for the 1st line of the ballot</li> <li>• State Code (does not appear on the ballot)</li> <li>• Jurisdiction Organization</li> </ul> </li> </ul> <p><b>Tip(s):</b> Select the “Jurisdiction Organization” which best meets tabulation reporting needs <i>AND</i> maintains efficiency while setting up the BOSS database.</p> <ul style="list-style-type: none"> <li>• Jurisdiction Title for the header of the ballot</li> <li>• Use of the Incumbent Indicator on reports</li> <li>• Write-in label to appear on the ballot</li> <li>• Precinct label to appear on the ballot</li> </ul>

Steps:	Details:
<p>7. Define political parties.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Party Maintenance</b> button.</li> <li><input type="checkbox"/> <b>Code</b> is a required field. It will not appear on ballots. It is for organizational purposes.</li> <li><input type="checkbox"/> <b>Party Name</b> is <i>not</i> a required field. Text entered in this field will appear on the ballot in association with candidates assigned to the party code. <ul style="list-style-type: none"> <li>• For a nonpartisan election where no party is to appear on the ballot in association with a candidate name, do not assign a <b>Party Name</b> in association with the “NP” <b>Code</b>. This is the default setting.</li> </ul> </li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>
<p>8. Select the languages to appear on ballots.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Choose the <b>Select Languages</b> button.</li> <li><input type="checkbox"/> Select checkboxes to create ballots in languages other than English. <ul style="list-style-type: none"> <li>• Selected languages will have files for translation available for export on the <b>Translation and Recording Export/Import</b> tab of the <b>Import/Export</b> window.</li> </ul> </li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Name in every language</b> checkbox in order to use only the English version of candidate names, and to withhold this data from exports for translation (i.e., no transliteration).</li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Details in every language</b> checkbox in order to use only the English version of candidate details.</li> <li><input type="checkbox"/> This data is not included in import files.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul> <p><b>See:</b> “Translating Foreign Language Ballot Text” on page 18.</p>
<p>9. Complete ballot instructions.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Ballot Instruction Texts</b> button.</li> <li><input type="checkbox"/> Ballot instructions include: <ul style="list-style-type: none"> <li>• eSlate instructions to appear at the top of the DRE ballot.</li> <li>• eSlate audio instructions associated with the text for the top of the DRE ballot.</li> <li>• Ballot Now instructions to appear at the top of the Ballot Now and eScan paper ballots.</li> </ul> </li> <li><input type="checkbox"/> You can copy ballot instructions from a .txt file and paste them into BOSS fields. Use an ASCII font such as Arial or Times New Roman. Do <i>not</i> use Unicode fonts.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

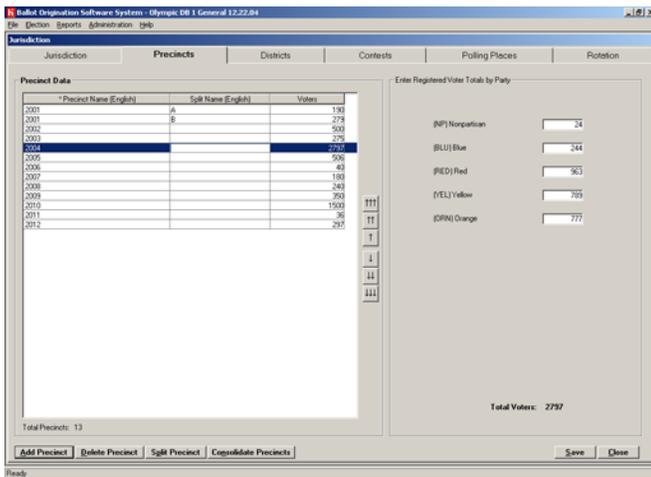
Steps:	Details:
<p>10. Define eSlate options.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>eSlate Options</b> button.</li> <li><input type="checkbox"/> Define Election Day and Early Voting close and suspend times. (Optional)       <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the Judge's Booth Controller (JBC) operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Early Voting suspend times should reflect the latest possible site suspend time.</li> <li><input type="checkbox"/> Define the number of minutes the Access Code will be active after printing. (Required)       <ul style="list-style-type: none"> <li>• 30 minutes is the default setting.</li> </ul> </li> <li><input type="checkbox"/> Select the <b>Retrievable Early Voting Ballots</b> checkbox in accordance with applicable election codes.       <ul style="list-style-type: none"> <li>• This associates a Ballot Code with all early voting ballots, making these ballots available for exclusion from tabulation.</li> <li>• This data is not included in import files.</li> </ul> </li> <li><input type="checkbox"/> Select a Summary/Verification font size.</li> <li><input type="checkbox"/> Select the <b>Allow Tally</b> and <b>Allow Write-In Report Print</b> checkboxes in order to allow the JBC operator to print tabulation and write-in reports after closing polls on Election Day. The <b>Allow Tally</b> box is checked by default.</li> <li><input type="checkbox"/> Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the <b>VBO Required</b> checkbox in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the number of times a ballot printout can be rejected in the <b>VBO Ballot Rejection Limit</b> field. The printout can be rejected a maximum of five times.</li> <li><input type="checkbox"/> Select the <b>Print Ballot Key</b> checkbox in accordance with applicable election codes. The box is checked by default.</li> <li><input type="checkbox"/> Enter eSlate Passwords. (Required)       <ul style="list-style-type: none"> <li>• eSlate passwords must be uppercase and/or numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

<b>Steps:</b>	<b>Details:</b>
<p>11. Define eScan options, if applicable.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>eScan Options</b> button.</li> <li><input type="checkbox"/> Define Election Day and Early Voting close and suspend times. (Optional) <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the eScan operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Early Voting suspend times should reflect the latest possible site suspend time.</li> <li><input type="checkbox"/> Enter eScan Passwords. (Required) <ul style="list-style-type: none"> <li>• eScan passwords must be numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li><input type="checkbox"/> Select the <b>Allow Tally Report Print</b> checkbox to print the eScan tally tape.</li> <li><input type="checkbox"/> Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select Ballot Processing permissions.</li> <li> Review ballot processing permission selections with elections officials. These settings determine who is allowed override permissions on the eScan device.</li> <li><b>See:</b> "Planning for eScan Use" on page 21.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>
<p>12. Save <b>Jurisdiction</b> tab data.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click <b>Save</b> to save changes before exiting any window or tab in BOSS. <ul style="list-style-type: none"> <li>• You are prompted to save if you make changes and try to exit the window or tab.</li> </ul> </li> </ul>

**Steps:**

**Details:**

13. Define precincts.

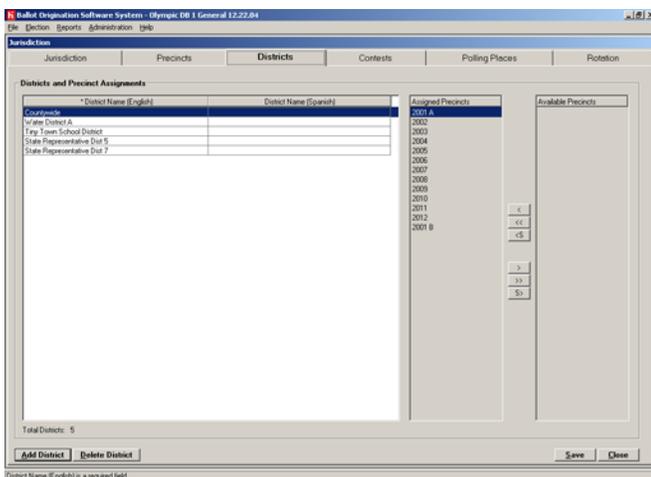


In the **Jurisdiction** window, click the **Precincts** tab to define precincts, splits, and the number of registered voters per party, per precinct/split.

- The number of registered voters must be entered by party.
- The **Voters** field will display the aggregate total for all parties per precinct or split.
- Arrow buttons move the selected row.

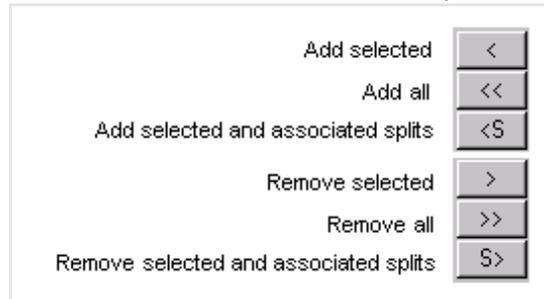


14. Define districts and assign precincts, if applicable.

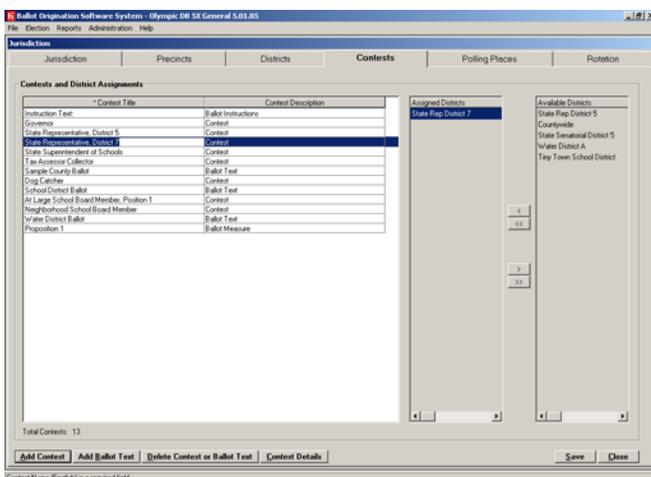


In the **Jurisdiction** window, click the **Districts** tab to define districts and assign precincts to districts.

- Precincts and splits can be assigned to multiple districts.
- Arrow buttons add or remove precincts.

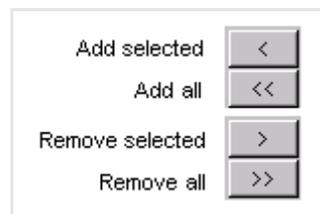


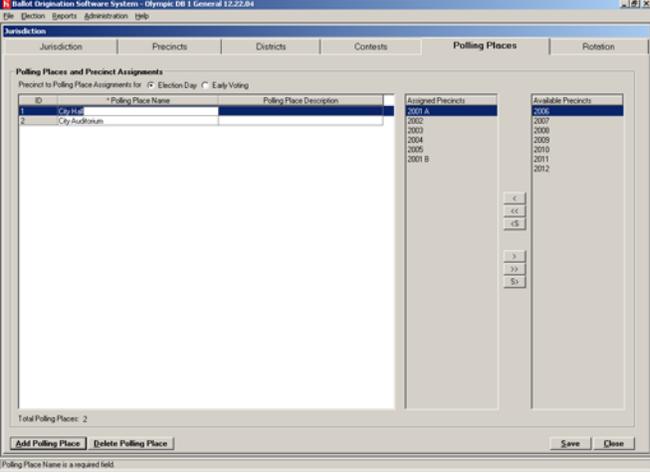
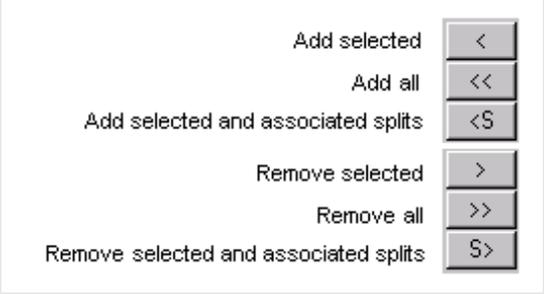
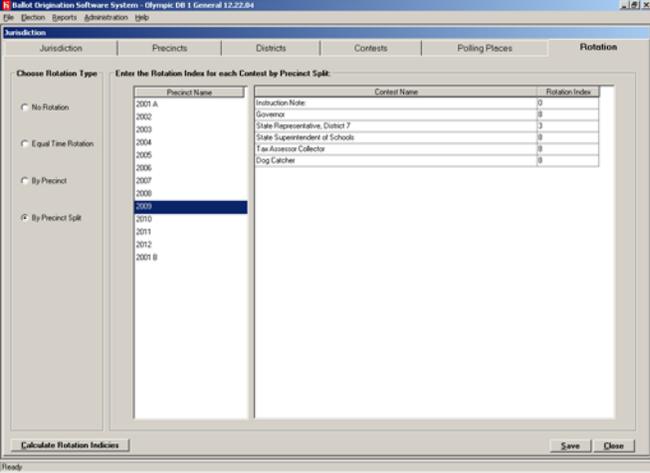
15. Define contests.

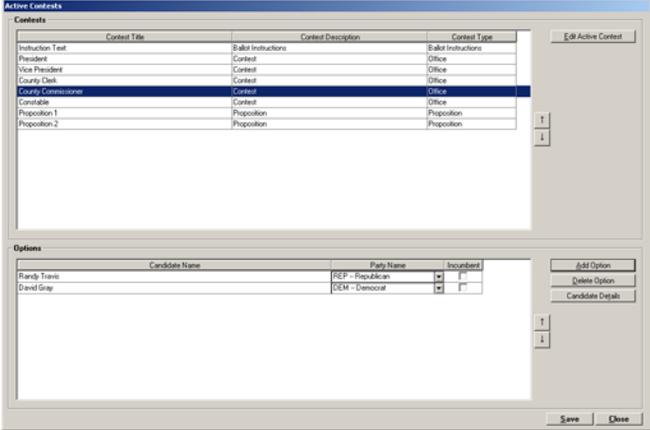
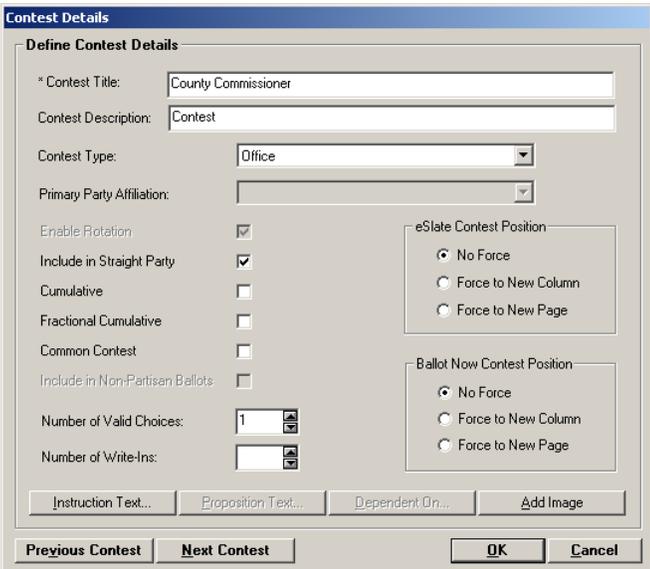


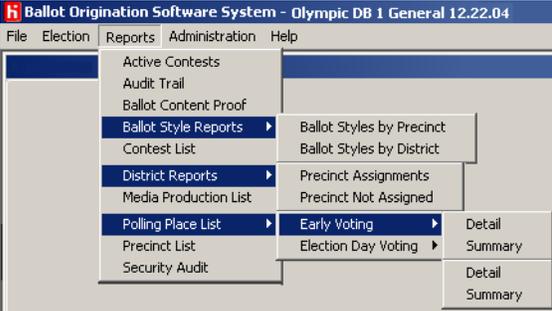
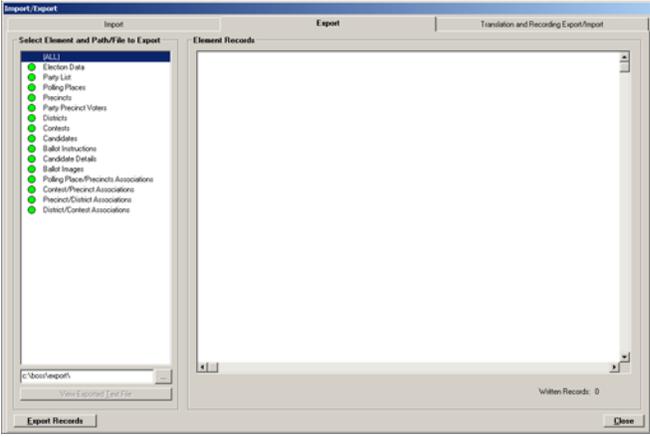
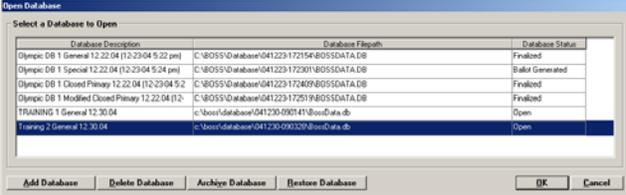
In the **Jurisdiction** window, click the **Contests** tab to define contests and Ballot Text, and to assign districts or precincts to contests.

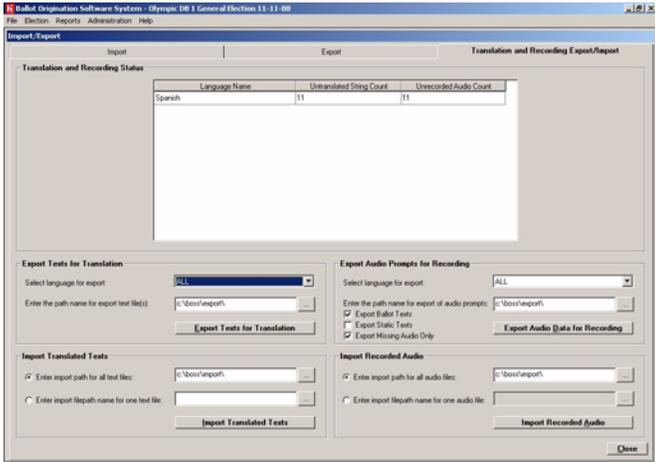
- Use the **Contest Description** field as an organizational tool.
- The **Contest Details** window is available for each contest by double-clicking on the target contest.
- Arrow buttons add or remove districts.

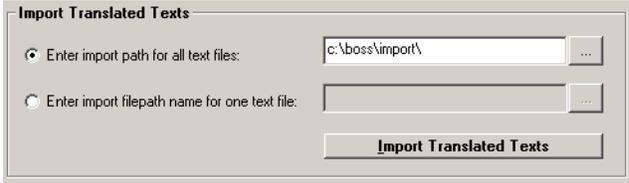


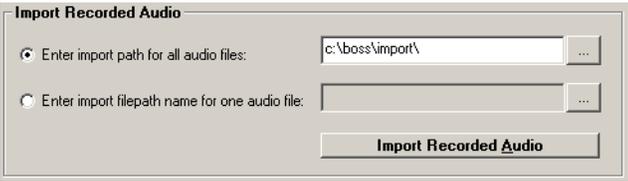
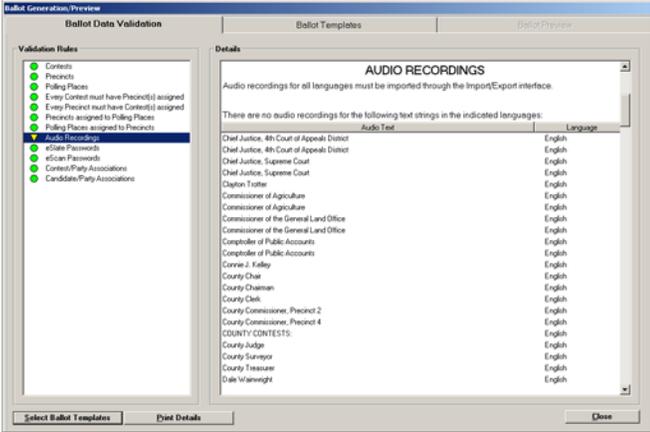
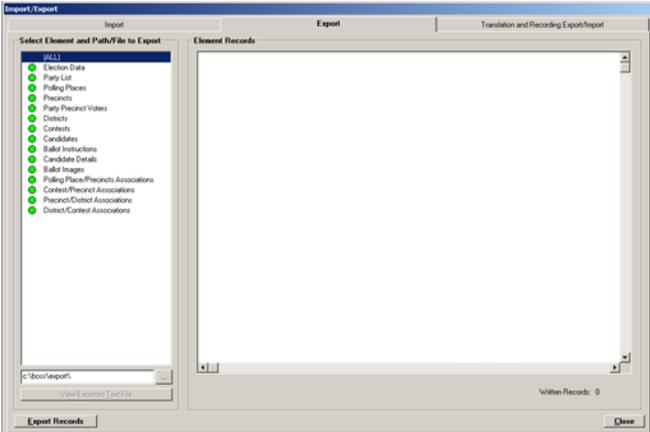
<b>Steps:</b>	<b>Details:</b>
<p>16. Define precinct-level contests, if applicable.</p>	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Precinct-Level Contests</b> tab to define contests and Ballot Text and assign precincts to contests.</p> <p><b>Tip(s):</b> Precinct-Level contests in an election organized by districts can be included as single-precinct districts.</p>
<p>17. Define polling places.</p> 	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Polling Places</b> tab to define polling places and assign precincts to polling places.</p> <ul style="list-style-type: none"> <li>• Election Day precincts assigned are removed from the list of <b>Available Precincts</b></li> <li>• Early Voting precincts may be assigned to multiple polling places</li> <li>• Arrow buttons add or remove precincts.</li> </ul> 
<p>18. Select ballot rotation type.</p> 	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Rotation</b> tab to define rotation type.</p> <ul style="list-style-type: none"> <li>• <b>No Rotation</b> is an available option.</li> <li>• A rotation index of "0" equals ballot order as presented in the <b>Active Contests</b> window.</li> <li>• In California databases, the button  appears.</li> </ul> <p><b>See:</b> The <i>BOSS Operations Manual</i> for more information about ballot rotation.</p>

Steps:	Details:
<p>19. Add contest details in the <b>Active Contests</b> window.</p>  <p>The screenshot shows the 'Active Contests' window with a table of contests and an 'Options' section below. The contests table includes columns for Contest Title, Contest Description, and Contest Type. The options table includes columns for Candidate Name, Party Name, and Incumbent.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Active Contests</b>.</li> <li><input type="checkbox"/> Actions available in the <b>Active Contests</b> window include: <ul style="list-style-type: none"> <li>• Changing contest sequence with the arrow buttons</li> <li>• Adding options (e.g., candidates)</li> <li>• Associating parties with candidates</li> <li>• Adding candidate details (e.g., delegates, occupations)</li> <li>• Changing option sequence with the arrow buttons</li> </ul> </li> </ul>
<p>20. Edit active contests in the <b>Contest Details</b> window.</p>  <p>The screenshot shows the 'Contest Details' window with fields for Contest Title (County Commissioner), Contest Description (Contest), and Contest Type (Office). It also includes checkboxes for rotation and straight party, and radio buttons for contest positions.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the  button or double-click a contest to open the <b>Contest Details</b> window (also available from the <b>Jurisdiction</b> window, <b>Contests</b> tab).</li> <li><input type="checkbox"/> Actions available in the <b>Contest Details</b> window include: <ul style="list-style-type: none"> <li>• Identifying contest type (straight party, office, proposition)</li> <li>• Enabling Rotation (checked and grayed when <b>No Rotation</b> is selected on the <b>Rotation</b> tab)</li> <li>• Including the contest in straight party</li> <li>• Identifying cumulative contests</li> <li>• Identifying fractional cumulative contests</li> <li>• Identifying common contests (leave unchecked unless otherwise directed)</li> <li>• Identifying the number of valid choices and write-ins</li> <li>• Adding contest-level instructions</li> <li>• Adding Proposition Text</li> <li>• Defining dependencies</li> <li>• Forcing contest position</li> <li>• Adding images to the ballot</li> </ul> </li> </ul> <p><b>Note:</b></p> <p>Force data is not imported.</p> <p>Ballot Now contest position forces apply to all paper ballots (eScan and Ballot Now).</p> <p><b>See:</b></p> <p>"Ballot Images" on page 15.</p> <p>The <i>BOSS Operations Manual</i> for more information about adding images.</p>

Steps:	Details:
<p>21. Proofread the available ballot reports, and make corrections if necessary.</p> 	<p><input type="checkbox"/> Before generating, go to the <b>Reports</b> menu and click the following menu items:</p> <ul style="list-style-type: none"> <li>• <b>Active Contests</b> to view the “Active Contests Options List” report</li> <li>• <b>Contest List</b> to view the “Contest List with Details” report</li> <li>• <b>District Reports, Precinct Assignments</b> to view the “Assigned Precinct Report”.</li> </ul> <p><b>Note:</b> “Ballot Content Proof” and ballot style reports are not available until after generating and accepting the ballot.</p>
<p>22. As a risk-reduction measure, back up BOSS data and the database. 22.1 Export all BOSS data files.</p> 	<p><input type="checkbox"/> Go to the <b>Election Menu</b>, click <b>Import/Export</b>, and then click the <b>Export</b> tab.</p> <ul style="list-style-type: none"> <li>• Create an election folder with the date and time.</li> <li>• Highlight <b>(ALL)</b> in the <b>Select Element and Path/File to Export</b> panel.</li> <li>• Click the  button and navigate to the folder you created.</li> <li>• Click the <b>Export Records</b> button and respond to the dialog boxes that appear.</li> <li>• Save export files to CD.</li> <li>• Repeat this process after database changes.</li> </ul> <p><b>Note:</b> Page layout and password data are not exported.</p>
<p>22.2 Archive the database and save to CD.</p> 	<p><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>.</p> <ul style="list-style-type: none"> <li>• Create an election folder with the date and time.</li> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Follow prompts to navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> <p><b>See:</b> “Appendix D: Backing Up Election Databases” on page 113.</p>

<b>Steps:</b>	<b>Details:</b>
23. (Optional) Prepare for ballot translation by proofreading the existing ballots.	<input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b> . Click the <b>Ballot Templates</b> tab, choose one or more templates, and click the <b>Generate Preview</b> button. On the <b>Ballot Preview</b> tab, proofread each ballot style and click <b>Reject</b> when exiting the window.
24. Create four folders on the PC Desktop for data import and export.	<input type="checkbox"/> Hart recommends that you give the folders the following names: <ul style="list-style-type: none"> <li>• Export Text</li> <li>• Import Text</li> <li>• Export Audio</li> <li>• Import Audio</li> </ul>
25. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 30.  	<input type="checkbox"/> Go to the <b>Election</b> menu, click <b>Import/Export</b> , and then click the <b>Translation and Recording Export/Import</b> tab.  <input type="checkbox"/> Navigate to the Export Text folder and click the <b>Export Texts for Translation</b> button.  <b>See:</b> The <i>BOSS Operations Manual</i> for detailed information about foreign language import/export.
26. Move the contents of the Export Text folder into the Jobs folder.	<b>Note:</b> You must move files for translation into the Jobs folder in order for TRANS to recognize them.
27. Use TRANS to translate text for multi-language ballots.	<b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.
28. Move the text files (.xlf) from the Jobs folder to the Import Text folder.	<b>Note:</b> You must move the translated files from the Jobs folder in order to use them in BOSS.

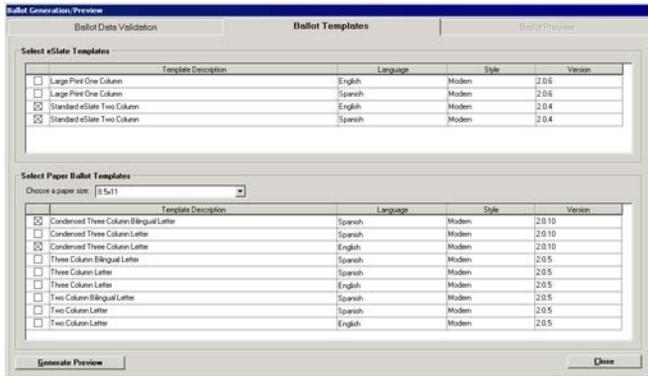
<b>Steps:</b>	<b>Details:</b>
<p>29. Import translated text for multi-language ballots.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Import Text folder and click the <b>Import Translated Texts</b> button.</p>
<p>30. Export English text for recording in TRANS.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Export/Import</b> tab of the <b>Import/Export</b> window, navigate to Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</p> <p><input type="checkbox"/> English audio prompts can be exported, recorded, and imported at any time after completing data entry and before generating the ballot.</p> <p><input type="checkbox"/> English audio can be recorded while foreign language text is being translated.</p> <p><b>See:</b> "Recording Audio" on page 19.</p>
<p>31. Export audio prompts for multi-language audio recording in TRANS, if applicable.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</p> <p><b>See:</b> "Translating Foreign Language Ballot Text" on page 18.</p>
<p>32. Move the contents of the Export Audio folder into the Jobs folder.</p>	<p><b>Note:</b> You must move files for recording into the Jobs folder in order for TRANS to recognize them.</p>
<p>33. Use TRANS to record English and, if applicable, multi-language audio.</p>	<p><b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.</p>
<p>34. Move the recorded audio files (.xml and .wav) to the Import Audio folder.</p>	<p><b>Note:</b> You must move the recorded files from the Jobs folder in order to use them in BOSS.</p>

<b>Steps:</b>	<b>Details:</b>
<p>35. Import recorded audio files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window: <ul style="list-style-type: none"> <li>• Click the “Enter import path for all audio files” radio button to import multiple audio files for a multi-language ballot.</li> <li>• Click the “Enter import filepath name for one audio file” radio button to import one audio file for an English-only ballot.</li> </ul> </li> <li><input type="checkbox"/> Navigate to the Audio Import folder and click the  button.</li> </ul>
<p>36. Verify that the ballot is complete.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>.</li> <li><input type="checkbox"/> View the <b>Ballot Data Validation</b> tab to verify that the ballot is complete. <ul style="list-style-type: none"> <li>• A green circle indicates that the information is complete.</li> <li>• A yellow triangle indicates that information is incomplete, but you can still generate the ballot.</li> <li>• A red square indicates that the information is incomplete and you cannot generate the ballot until you supply the missing information.</li> </ul> </li> </ul>
<p>37. As a risk-reduction measure, back up BOSS data and the database.</p> <p>37.1 Export all BOSS data files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, BOSS data files).</li> <li><input type="checkbox"/> Go to the <b>Election Menu</b>, click <b>Import/Export</b>, and then click the <b>Export</b> tab. <ul style="list-style-type: none"> <li>• Highlight <b>(ALL)</b> in the <b>Select Element and Path/File to Export</b> panel.</li> <li>• Click the  button and navigate to the folder you created.</li> <li>• Click the  button and respond to the dialog boxes that appear.</li> <li>• Save the export files to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul>

<b>Steps:</b>	<b>Details:</b>																					
<p><b>37.2 Export all translated text and recorded audio.</b></p> <div> <p><b>Export Texts for Translation</b></p> <p>Select language for export: <input type="text" value="ALL"/></p> <p>Enter the path name for export text file(s): <input type="text" value="c:\boss\export\"/> ...</p> <p><input type="button" value="Export Texts for Translation"/></p> </div> <div> <p><b>Export Audio Prompts for Recording</b></p> <p>Select language for export: <input type="text" value="ALL"/></p> <p>Enter the path name for export of audio prompts: <input type="text" value="c:\boss\export\"/> ...</p> <p><input checked="" type="checkbox"/> Export Ballot Texts  <input type="checkbox"/> Export Static Texts  <input type="checkbox"/> Export Missing Audio Only</p> <p><input type="button" value="Export Audio Data for Recording"/></p> </div>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, translated text and audio).</li> <li><input type="checkbox"/> After completing translations and audio, export ALL foreign language text and ALL audio from the <b>Translation and Recording Export/Import</b> tab. <ul style="list-style-type: none"> <li>• Navigate to the folder you created and click the <input type="button" value="Export Texts for Translation"/> button.</li> <li> Deselect the <input type="checkbox"/> <b>Export Missing Audio Only</b> checkbox.</li> <li>• Navigate to the folder you created and click the <input type="button" value="Export Audio Data for Recording"/> button.</li> <li>• Save the export files to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul>																					
<p><b>37.3 Archive the database and save to CD.</b></p> <div> <p><b>Open Database</b></p> <table border="1"> <thead> <tr> <th>Database Description</th> <th>Database Filepath</th> <th>Database Status</th> </tr> </thead> <tbody> <tr> <td>Olympic DB 1 General 12.22.04 (12.23.04 5:22 pm)</td> <td>C:\BOSS\database\041229172154\BOSSDATA.DB</td> <td>Finalized</td> </tr> <tr> <td>Olympic DB 1 Special 12.22.04 (12.23.04 5:24 pm)</td> <td>C:\BOSS\database\041229172301\BOSSDATA.DB</td> <td>Ballot Generated</td> </tr> <tr> <td>Olympic DB 1 Closed Primary 12.22.04 (12.23.04 5:2)</td> <td>C:\BOSS\database\041229172409\BOSSDATA.DB</td> <td>Finalized</td> </tr> <tr> <td>Olympic DB 1 Modified Closed Primary 12.22.04 (12.23.04 5:2)</td> <td>C:\BOSS\database\041229172519\BOSSDATA.DB</td> <td>Finalized</td> </tr> <tr> <td>TRAINING 1 General 12.30.04</td> <td>c:\boss\database\041230085141\bossData.db</td> <td>Open</td> </tr> <tr> <td>Training 2 General 12.30.04</td> <td>c:\boss\database\041230090220\bossData.db</td> <td>Open</td> </tr> </tbody> </table> <p><input type="button" value="Add Database"/> <input type="button" value="Delete Database"/> <input type="button" value="Archive Database"/> <input type="button" value="Restore Database"/> <input type="button" value="OK"/> <input type="button" value="Cancel"/></p> </div>	Database Description	Database Filepath	Database Status	Olympic DB 1 General 12.22.04 (12.23.04 5:22 pm)	C:\BOSS\database\041229172154\BOSSDATA.DB	Finalized	Olympic DB 1 Special 12.22.04 (12.23.04 5:24 pm)	C:\BOSS\database\041229172301\BOSSDATA.DB	Ballot Generated	Olympic DB 1 Closed Primary 12.22.04 (12.23.04 5:2)	C:\BOSS\database\041229172409\BOSSDATA.DB	Finalized	Olympic DB 1 Modified Closed Primary 12.22.04 (12.23.04 5:2)	C:\BOSS\database\041229172519\BOSSDATA.DB	Finalized	TRAINING 1 General 12.30.04	c:\boss\database\041230085141\bossData.db	Open	Training 2 General 12.30.04	c:\boss\database\041230090220\bossData.db	Open	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the <input type="button" value="Archive Database"/> button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul> <p><b>See:</b>  “Appendix D: Backing Up Election Databases” on page 113.</p>
Database Description	Database Filepath	Database Status																				
Olympic DB 1 General 12.22.04 (12.23.04 5:22 pm)	C:\BOSS\database\041229172154\BOSSDATA.DB	Finalized																				
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Training 2 General 12.30.04	c:\boss\database\041230090220\bossData.db	Open																				

**Steps:**

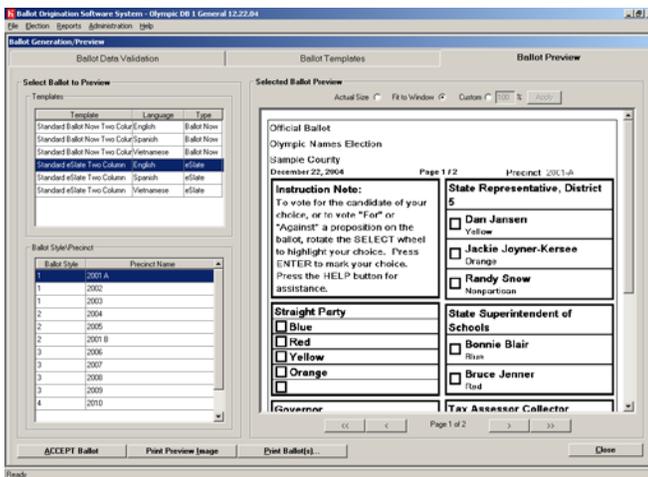
**38. Select templates and preview ballots.**



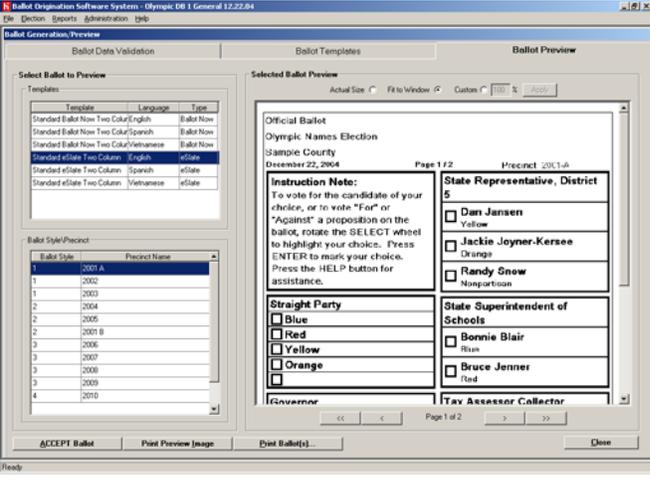
**Details:**

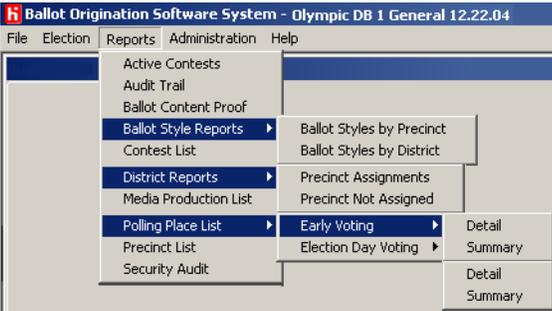
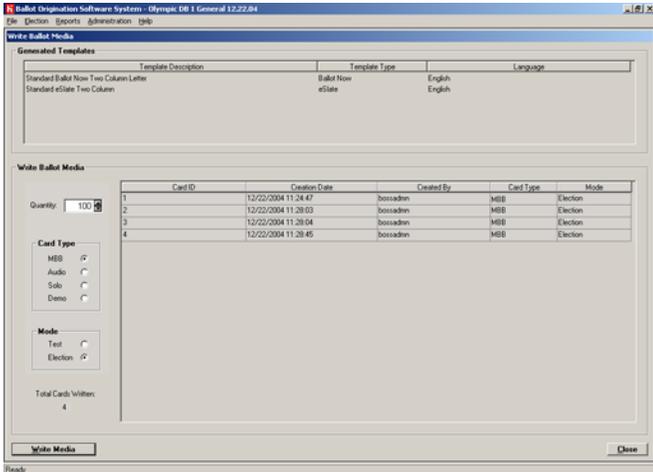
- Go to the **Election** menu and click **Ballot Formats**.
- Click the **Ballot Templates** tab and choose templates and paper size.
  - Select paper ballot (Ballot Now/eScan) and eSlate DRE ballots in all formats and languages needed.
  - If images have been added to the ballots, choose image-enabled templates. To obtain these templates, contact Hart InterCivic.
  - Take written note of template(s) selected.
-  If choosing paper ballot templates for use with the eScan, you must create passwords in the **eScan Options** window. Although eScan cannot be operated without passwords, it is possible to generate the ballot in BOSS without defining eScan passwords.
-  The eScan device does *not* accept 11x17 ballots.
- Click the  button.

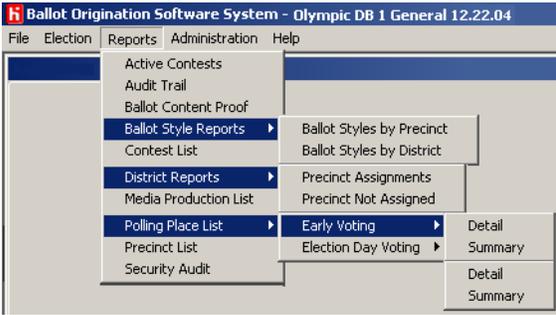
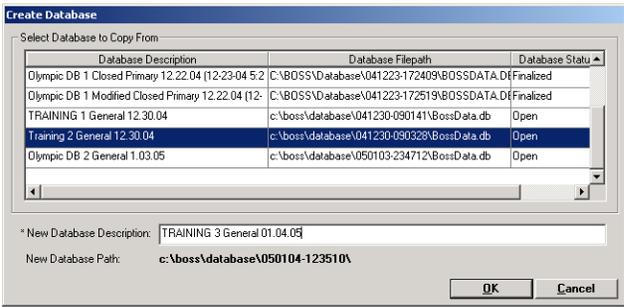
**39. Proofread the ballot on the **Ballot Preview** tab.**

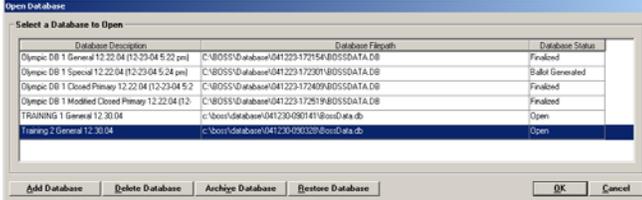
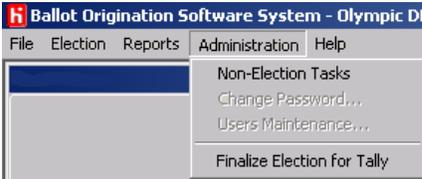
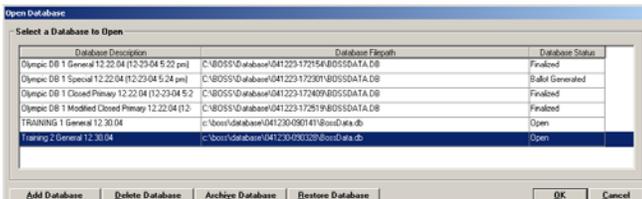


- Click the **Print Preview Image** button to print the ballot currently in the window.
  - Click the **Print Ballots** button to print different ballot styles.
  - Print ballot previews in order to proofread all formats, ballot styles, and languages, before accepting ballot generation.
  - Determine the maximum length of any ballot, and consider revising format to reduce length (e.g., to keep paper ballots to one sheet).
- Tip(s):** Right-click the ballot image and choose **Save Picture As...** in order to save the ballot page as a "\*.bmp" graphic file (for use in sample ballot flyers, for example).

Steps:	Details:
<p>40. Generate the ballot, or go back to make corrections.</p> 	<p> Once you accept the ballot, you cannot enter new data in this BOSS database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> To accept ballot generation, click the  button on the <b>Ballot Preview</b> tab. <ul style="list-style-type: none"> <li>• Confirm ballot acceptance in the dialog box that appears.</li> </ul> </li> <li><input type="checkbox"/> To reject ballot generation, close the <b>Ballot Generation /Preview</b> window and click <b>Reject</b>.</li> </ul>
<p>41. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Before accepting ballot generation, the BOSS application prompts you to enter the eCM PIN.</li> </ul>  <ul style="list-style-type: none"> <li><input type="checkbox"/> The eCM can be removed from the USB port after the ballot has been accepted.</li> <li><input type="checkbox"/> Store the eCM in a secure location.</li> <li><input type="checkbox"/> The simplest way to use an eCM is to keep the device handy (e.g., on a lanyard on your person) and to insert the eCM into a USB port on an election PC each time that PC is being used, removing the eCM when finished</li> </ul>

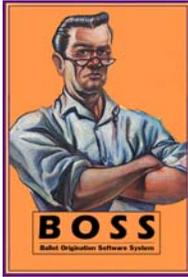
Steps:	Details:
<p>42. Print Ballot Style reports.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Reports</b> menu and click the following menu items:                     <ul style="list-style-type: none"> <li>• <b>Ballot Content Proof</b> to view and print a report detailing precincts, contests, and registered voters per ballot style</li> <li>• <b>Ballot Syle Reports</b>, and then <b>Ballot Styles by District</b> to view and print a report detailing all ballot styles and associated districts and precincts</li> <li>• <b>Ballot Syle Reports</b>, and then <b>Ballot Styles by Precinct</b> to view and print a report detailing all ballot styles and assigned precincts (for election organized by precinct-contest associations)</li> </ul> </li> </ul>
<p>43. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Write Ballot Media</b>.                     <ul style="list-style-type: none"> <li> Decide the number of cards needed for the election, including recovery and SERVO MBBs</li> </ul> </li> </ul> <p><b>See:</b> "Planning Ballot Media Quantities" on page 24.</p> <ul style="list-style-type: none"> <li>• Select the desired <b>Quantity</b>, <b>Card Type</b> and <b>Mode</b> options.</li> <li>• Click the  button and follow the prompts to create media.</li> </ul> <p><b>See:</b> "Planning for eScan Use" on page 21.</p> <p>"Planning for Demonstration eSlate Use" on page 23.</p>

Steps:	Details:
<p>44. Print reports.</p> 	<p><input type="checkbox"/> Go to the <b>Reports</b> menu and click, at minimum, the following:</p> <ul style="list-style-type: none"> <li>• <b>Audit Trail</b> to view and print a report giving a record of operator actions</li> <li>• <b>Media Production List</b> to view and print a report documenting all media produced by sequential serial number, card type, time created, and card mode.</li> <li>• <b>Polling Place List/Early Voting/Summary</b> and <b>Polling Place List/Election Day/Summary</b> to view and print reports necessary for warehouse/support personnel or JBC operators to assign polling place IDs to JBCs.</li> </ul> <p> If the eScan is to be used in Absentee mode, obtain the Absentee polling place ID by viewing the <b>Polling Places</b> tab in the <b>Jurisdiction</b> window after generating with paper ballot template(s).</p>
<p>45. Verify that the MBBs and Audio cards contain the required information in the desired format.</p> 	<p><input type="checkbox"/> View/listen to test mode cards on the JBC and DAU eSlate, eScan, and/or with Ballot Now.</p> <p><input type="checkbox"/> Conduct a Logic and Accuracy Test (L&amp;A).</p> <p><b>See:</b> The <i>Tally Training Manual</i> for instructions on conducting an L&amp;A with the system.</p>
<p>46. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.</p> 	<p><b>See:</b> “Database Management” on page 9. “Appendix F: Copying Forward a BOSS Database” on page 117.</p>

Steps:	Details:
<p>47. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>.             <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn the database to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul> <p><b>See:</b>  “Appendix D: Backing Up Election Databases” on page 113.</p>
<p>48. Finalize the BOSS database for Tally.</p> 	<p> Once the BOSS database is finalized, media can no longer be created from this database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Verify that all necessary media has been created.</li> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Finalize Election for Tally</b>.</li> </ul>
<p>49. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>.             <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Follow prompts to navigate to the target location.</li> <li>• Name and time-stamp, and then save the database.</li> <li>• Burn the database to CD.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul> <p><b>See:</b>  “Appendix D: Backing Up Election Databases” on page 113.</p>
<p>50. Exit BOSS.</p> 	

**Notes:**

**Notes:**



# Chapter 3

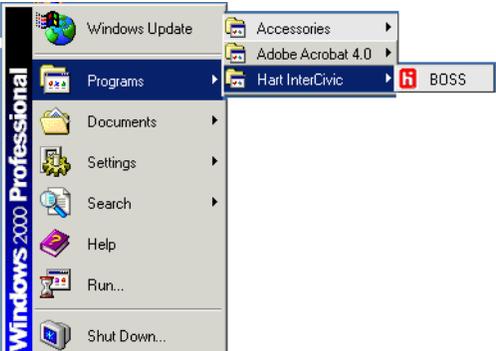
## Creating a Primary Election

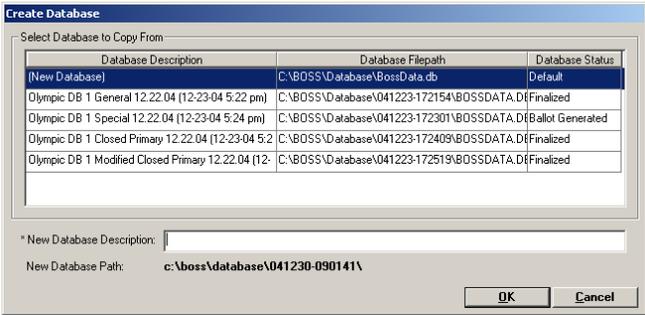
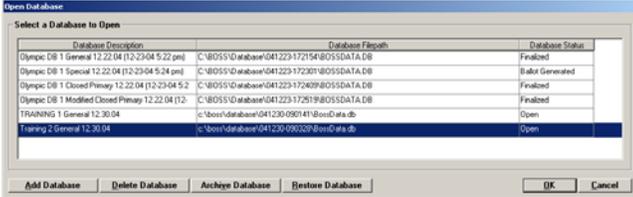
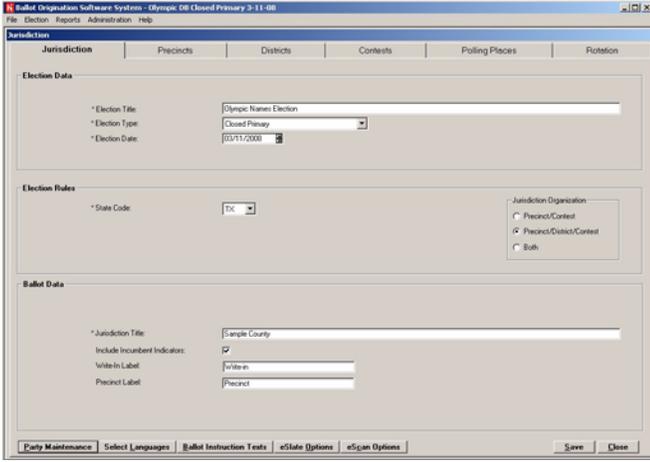
Follow the steps outlined in this chapter in order to create a closed primary or modified closed primary election. Modified open primary elections (pick-a-party) are created as if a general election, using contest dependencies per party choice.

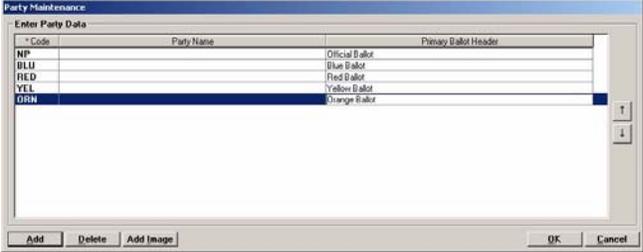
- P** Refers to steps that are unique to creating a primary election. These steps vary from those for creating a general or special election.

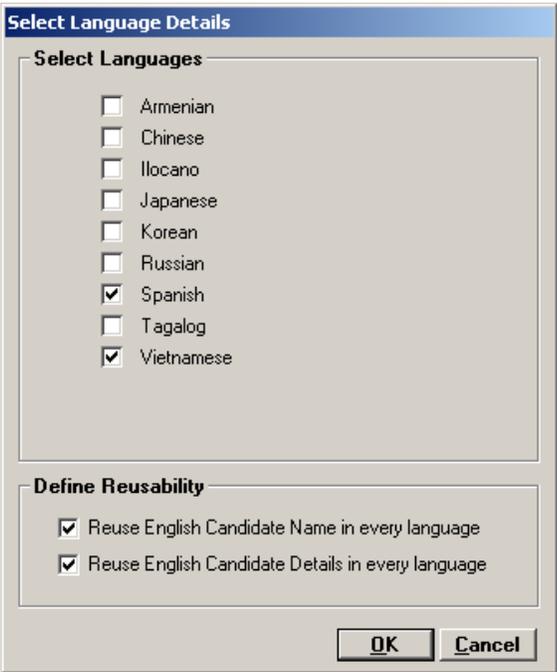
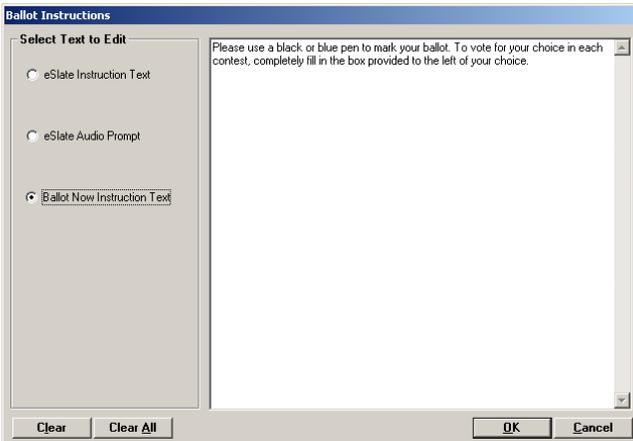
**See:**

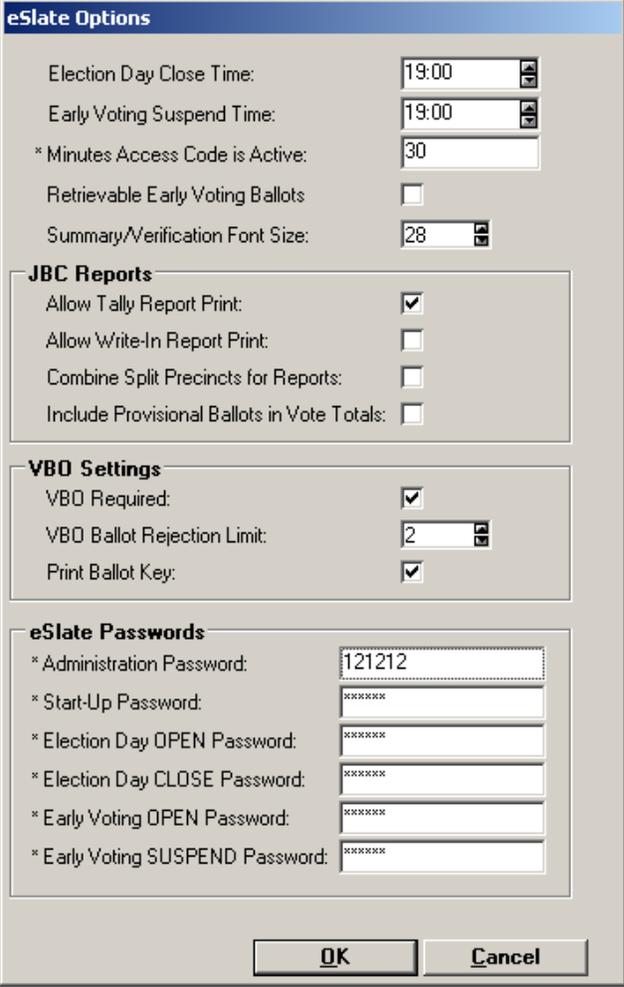
“Establishing Election Types and Organization Within BOSS” on page 13.

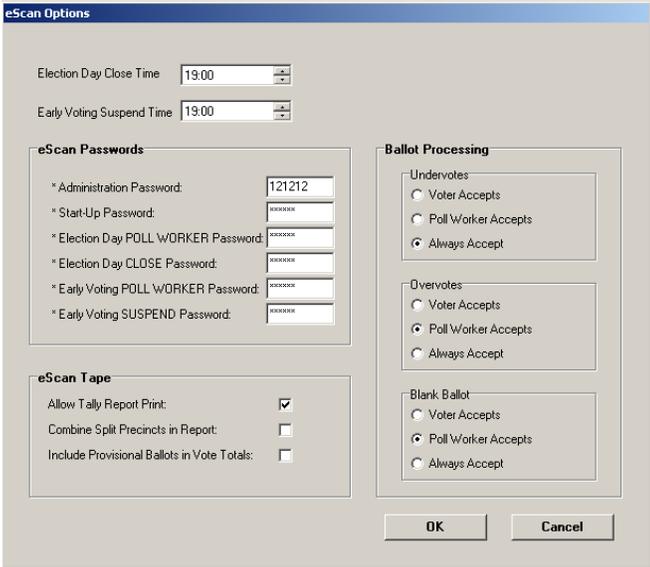
Steps:	Details:
<p>1. Double-click the BOSS desktop shortcut to open the application.</p> 	<p>OR Go to <b>Start/Programs/Hart InterCivic/BOSS</b></p> 
<p>2. Log in to BOSS as a user with all permissions.</p> 	

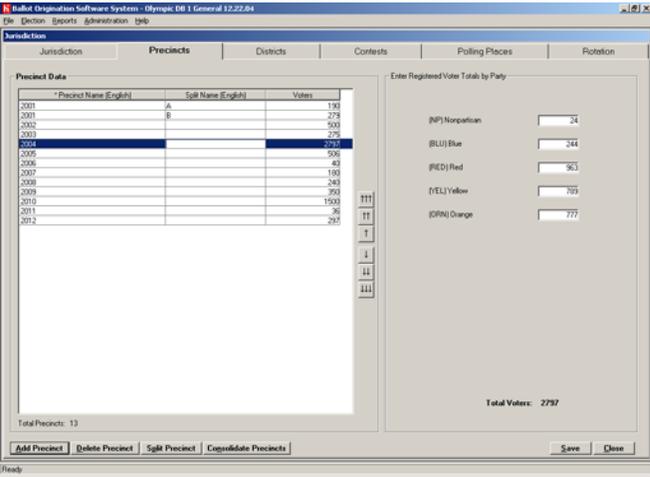
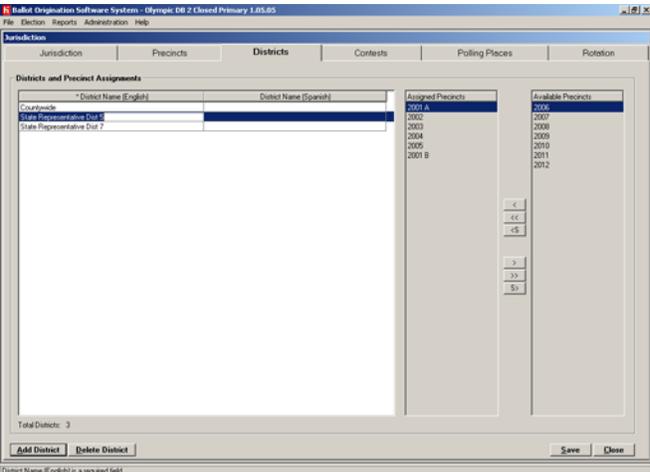
Steps:	Details:
<p>3. If you haven't already done so, set up BOSS users and permission levels.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Non-Election Tasks</b>. Click Yes.</li> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Users Maintenance</b>.</li> </ul> <p><b>See:</b> "Establishing BOSS User Permissions" on page 12.</p>
<p>4. Create a BOSS database named "&lt;Description # Election Type date&gt;".</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. In the <b>Open Database</b> window, click the <b>Add Database</b> button.</li> <li><input type="checkbox"/> In the <b>Create Database</b> window that appears, select a database to copy from, and complete the <b>New Database Description</b> field with a description of the database, the sequence number, the election name, and the date.</li> <li><input type="checkbox"/> To create a blank database, copy the database from "(New Database)" (shown).</li> <li><input type="checkbox"/> Click <b>OK</b>.</li> </ul> <p><b>See:</b> Suggested naming conventions in "Database Management" on page 9.</p>
<p>5. Open the new BOSS database.</p> 	<p>In the <b>Open Database</b> window, double-click the target database.</p>
<p><b>P</b> 6. Define the primary election jurisdiction information.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> The <b>Jurisdiction</b> tab in the <b>Jurisdiction</b> window opens when you open a database.</li> <li><input type="checkbox"/> Defining Jurisdiction information includes:             <ul style="list-style-type: none"> <li>• Election Title for the header of the ballot</li> </ul> </li> </ul> <p><b>P</b></p> <ul style="list-style-type: none"> <li>• Closed Primary or Modified Closed Primary Election Type (does not appear on the ballot)</li> <li>• Election Date for the header of the ballot</li> <li>• State Code (does not appear on the ballot)</li> <li>• Jurisdiction Organization</li> <li>• Jurisdiction Title for the header of the ballot</li> <li>• Use of the Incumbent Indicator on reports</li> <li>• Write-in label to appear on the ballot</li> <li>• Precinct label to appear on the ballot</li> </ul>

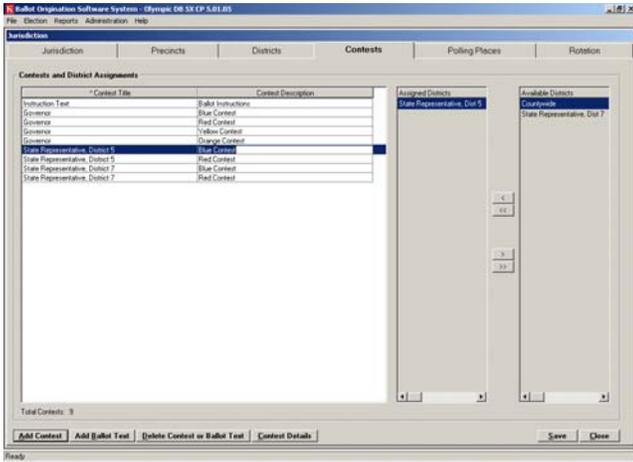
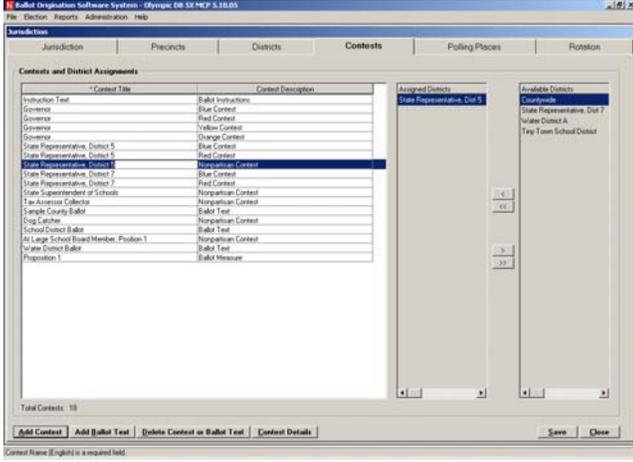
Steps:	Details:
<p><b>P</b></p> <p>7. Define primary election political parties and primary ballot headers.</p> 	<ul style="list-style-type: none"> <li>❑ Click the <b>Party Maintenance</b> button.</li> <li>❑ <b>Code</b> is a required field. It will not appear on ballots. It is for organizational purposes.</li> <li>❑ <b>Party Name</b> is <i>not</i> a required field. Text entered in this field will appear on the ballot in association with candidates assigned to the party code.</li> </ul> <p><b>P</b></p> <ul style="list-style-type: none"> <li>• Leave this field blank in order to use the Party Code as a ballot organizer and reporting tool , but to avoid having candidate names show party affiliations on the ballot.</li> </ul> <p><b>P</b></p> <ul style="list-style-type: none"> <li>❑ <b>Primary Ballot Header</b> is not a required field. Text entered in this field will appear on the first line of the ballot.</li> <li>❑ Click <b>OK</b> to save data and close the window.</li> </ul> <p><b>P</b></p> <p>“NP” is a default Party Code in BOSS. This Party cannot be deleted, but it can be ignored by not associating any data with it, if necessary.</p> <p>In a modified closed primary election, the Nonpartisan Party, regardless of actual title, must be associated with the “NP” code.</p> <p>In a closed primary election, the “NP” Party Code may be used for contests and candidates, but Nonpartisan-only ballot styles may not be created, and Nonpartisan-only polling places may not be set up.</p> <p><b>See:</b></p> <p>“Establishing Election Types and Organization Within BOSS” on page 13.</p>

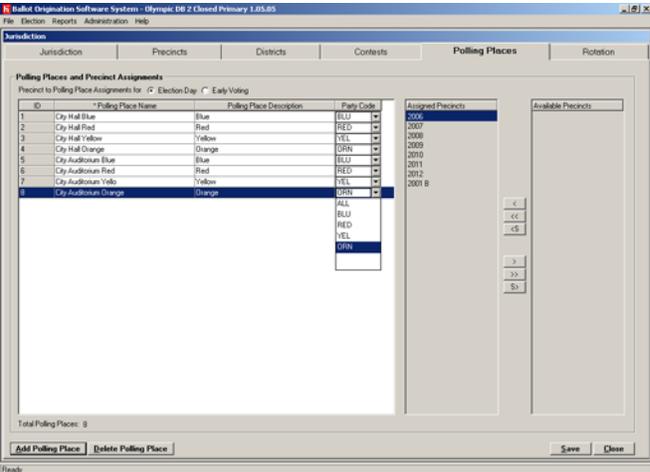
Steps:	Details:
<p>8. Select the languages to appear on ballots.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Select Languages</b> button.</li> <li><input type="checkbox"/> Select checkboxes to create ballots in languages other than English. <ul style="list-style-type: none"> <li>• Selected languages will have files for translation available for export on the <b>Translation and Recording Export/Import</b> tab of the <b>Import/Export</b> window.</li> </ul> </li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Name in Every Language</b> checkbox in order to use only the English version of candidate names, and to withhold this data from exports for translation (i.e., no transliteration).</li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Details in Every Language</b> checkbox in order to use only the English version of candidate details.</li> <li><input type="checkbox"/> This data is not included in import files.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul> <p><b>See:</b>  “Translating Foreign Language Ballot Text” on page 18.</p>
<p>9. Complete ballot instructions.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Ballot Instruction Texts</b> button.</li> <li><input type="checkbox"/> Ballot instructions include: <ul style="list-style-type: none"> <li>• eSlate instructions to appear at the top of the DRE ballot.</li> <li>• eSlate audio instructions associated with the text for the top of the DRE ballot.</li> <li>• Ballot Now instructions to appear at the top of the Ballot Now and eScan paper ballots.</li> </ul> </li> <li><input type="checkbox"/> You can copy ballot instructions from a .txt file and paste them into BOSS fields. Use an ASCII font such as Arial or Times New Roman. Do <i>not</i> use Unicode fonts.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

Steps:	Details:
<p>10. Define eSlate options.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>eSlate Options</b> button.</li> <li><input type="checkbox"/> Define Election Day and Early Voting close and suspend times. (Optional)       <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the Judge's Booth Controller (JBC) operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Early Voting suspend times should reflect the latest possible site suspend time.</li> <li><input type="checkbox"/> Define the number of minutes the Access Code will be active after printing. (Required)       <ul style="list-style-type: none"> <li>• 30 minutes is the default setting.</li> </ul> </li> <li><input type="checkbox"/> Select the <b>Retrievable Early Voting Ballots</b> option in accordance with applicable election codes.       <ul style="list-style-type: none"> <li>• This associates a Ballot Code with all early voting ballots, making these ballots available for exclusion from tabulation.</li> <li>• This data is not included in import files.</li> </ul> </li> <li><input type="checkbox"/> Select a Summary/Verification font size.</li> <li><input type="checkbox"/> Select the <b>Allow Tally</b> and <b>Allow Write-In Report Print</b> checkboxes in order to allow the JBC operator to print tabulation and write-in reports after closing polls on Election Day. The <b>Allow Tally</b> box is checked by default.</li> <li><input type="checkbox"/> Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the <b>VBO Required</b> option in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the number of times a ballot printout can be rejected in the <b>VBO Ballot Rejection Limit</b> field. The printout can be rejected a maximum of five times.</li> <li><input type="checkbox"/> Select the <b>Print Ballot Key</b> option in accordance with applicable election codes. The box is checked by default.</li> <li><input type="checkbox"/> Enter eSlate Passwords. (Required)       <ul style="list-style-type: none"> <li>• eSlate passwords must be uppercase and/or numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

Steps:	Details:
<p>11. Define eScan options, if applicable.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>eScan Options</b> button.</li> <li><input type="checkbox"/> Define Election Day and Early Voting close and suspend times. (Optional) <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the eScan operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Early Voting suspend times should reflect the latest possible site suspend time.</li> <li><input type="checkbox"/> Enter eScan Passwords. (Required) <ul style="list-style-type: none"> <li>• eScan passwords must be numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li><input type="checkbox"/> Select the <b>Allow Tally Report Print</b> checkbox to print the eScan tally tape.</li> <li><input type="checkbox"/> Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select Ballot Processing permissions.</li> <li> Review ballot processing permission selections with elections officials. These settings determine who is allowed override permissions on the eScan device.</li> <li><b>See:</b> "Planning for eScan Use" on page 21.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>
<p>12. Save <b>Jurisdiction</b> tab data.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click <b>Save</b> to save changes before exiting any window or tab in BOSS. <ul style="list-style-type: none"> <li>• You are prompted to save if you make changes and try to exit the window or tab.</li> </ul> </li> </ul>

Steps:	Details:
<p>13. Define precincts.</p> 	<p>❑ In the <b>Jurisdiction</b> window, click the <b>Precincts</b> tab to define precincts, splits, and the number of registered voters per party, per precinct/split.</p> <ul style="list-style-type: none"> <li>• The number of registered voters must be entered by party.</li> <li>• The <b>Voters</b> field will display the aggregate total for all parties per precinct or split.</li> <li>• Arrow buttons move the selected row.</li> </ul> <div style="border: 1px solid gray; padding: 5px;"> <p>Move one row down or up</p> <p>Move one page down or up</p> <p>Move to bottom or top of list</p>  </div>
<p>14. Define districts and assign precincts, if applicable.</p> 	<p>❑ In the <b>Jurisdiction</b> window, click the <b>Districts</b> tab to define districts and assign precincts to districts.</p> <ul style="list-style-type: none"> <li>• Precincts and splits can be assigned to multiple districts</li> <li>• Arrow buttons add or remove precincts.</li> </ul> <div style="border: 1px solid gray; padding: 5px;"> <p>Add selected</p> <p>Add all</p> <p>Add selected and associated splits</p> <p>Remove selected</p> <p>Remove all</p> <p>Remove selected and associated splits</p>  </div>

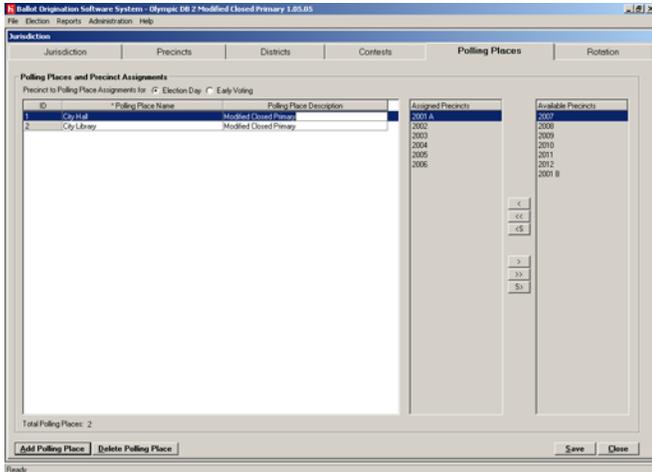
Steps:	Details:
<p><b>P</b></p> <p>15. Define closed primary election contests.</p> 	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Contests</b> tab to define contests and Ballot Text, and to assign districts or precincts to contests.</p> <p><b>P</b></p> <ul style="list-style-type: none"> <li>Use the <b>Contest Description</b> field as an organizational tool to identify Party affiliations for contests.</li> <li>The <b>Active Contest Details</b> window is available for each contest by double-clicking on the target contest.</li> <li>Arrow buttons add or remove districts</li> </ul> 
<p><b>P</b></p> <p>16. OR Define modified closed primary election contests.</p> 	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Contests</b> tab to define contests and Ballot Text, and to assign districts or precincts to contests.</p> <p><b>P</b></p> <ul style="list-style-type: none"> <li>Use the <b>Contest Description</b> field as an organizational tool to identify Party affiliations for contests.</li> <li>The <b>Active Contest Details</b> window is available for each contest by double-clicking on the target contest.</li> <li>Arrow buttons add or remove districts</li> </ul> 
<p><b>P</b></p> <p>17. Define precinct-level contests, if applicable.</p>	<p><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Precinct-Level Contests</b> tab to define contests and Ballot Text, and to assign precincts to contests.</p> <p><b>P</b></p> <ul style="list-style-type: none"> <li>Use the <b>Contest Description</b> field as an organizational tool to identify Party affiliations for contests.</li> </ul> <p><b>Tip(s):</b> Precinct-Level contests in an election organized by districts can be included as single-precinct districts.</p>

Steps:	Details:												
<p><b>P</b> 18. Define closed primary election polling places.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> In the <b>Jurisdiction</b> window, click the <b>Polling Places</b> tab to define polling places and assign precincts to polling places.</li> <li><b>P</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> In a closed primary election, polling places may be identified as party-specific or as shared by all parties via the <b>Party Code</b> drop-down window.</li> </ul> </li> <li><b>P</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Party-specific polling places will have one JBC assigned to each party and only that party's ballot styles will be available at that JBC.</li> </ul> </li> <li><b>P</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Shared polling places will have all parties available per JBC, and the JBC operator will assign each voter his or her correct ballot style (party).</li> </ul> </li> <li><b>P</b> <ul style="list-style-type: none"> <li>• Election Day precincts assigned to shared polling places are removed from the list of <b>Available Precincts</b> for all parties</li> </ul> </li> <li><b>P</b> <ul style="list-style-type: none"> <li>• Election Day precincts assigned to party-specific polling places are removed from the list of <b>Available Precincts</b> for those parties already assigned</li> <li>• Early Voting precincts may be assigned to multiple polling places</li> <li>• Arrow buttons add or remove precincts.</li> </ul> </li> </ul> <div style="border: 1px solid gray; padding: 10px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 10px;">Add selected</td> <td style="text-align: center;"><input type="button" value=" &lt;"/></td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">Add all</td> <td style="text-align: center;"><input type="button" value=" &lt;&lt;"/></td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">Add selected and associated splits</td> <td style="text-align: center;"><input type="button" value=" &lt;S"/></td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">Remove selected</td> <td style="text-align: center;"><input type="button" value=" &gt;"/></td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">Remove all</td> <td style="text-align: center;"><input type="button" value=" &gt;&gt;"/></td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">Remove selected and associated splits</td> <td style="text-align: center;"><input type="button" value=" S&gt;"/></td> </tr> </table> </div>	Add selected	<input type="button" value=" &lt;"/>	Add all	<input type="button" value=" &lt;&lt;"/>	Add selected and associated splits	<input type="button" value=" &lt;S"/>	Remove selected	<input type="button" value=" &gt;"/>	Remove all	<input type="button" value=" &gt;&gt;"/>	Remove selected and associated splits	<input type="button" value=" S&gt;"/>
Add selected	<input type="button" value=" &lt;"/>												
Add all	<input type="button" value=" &lt;&lt;"/>												
Add selected and associated splits	<input type="button" value=" &lt;S"/>												
Remove selected	<input type="button" value=" &gt;"/>												
Remove all	<input type="button" value=" &gt;&gt;"/>												
Remove selected and associated splits	<input type="button" value=" S&gt;"/>												

<b>Steps:</b>	<b>Details:</b>
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**P**

19. OR Define modified closed primary election polling places.



In the **Jurisdiction** window, click the **Polling Places** tab to define polling places and assign precincts to polling places.

**P**

In a modified closed primary election, precinct assignments to polling places work as in a general or special election.

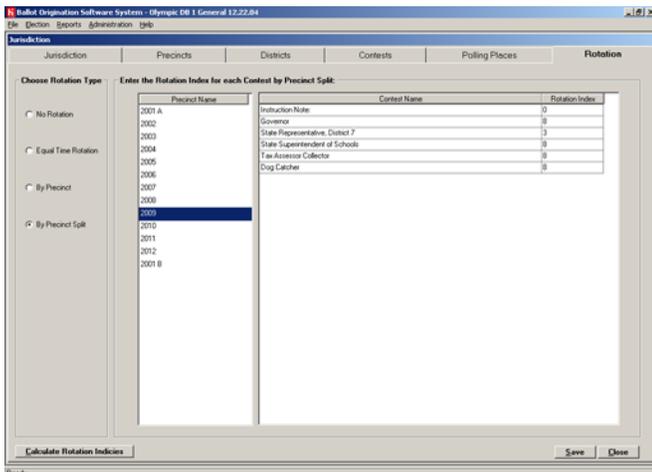
**P**

The JBC operator will assign each voter his or her correct ballot style (party).

- Election Day precincts assigned are removed from the list of **Available Precincts**
- Early Voting precincts may be assigned to multiple polling places
- Arrow buttons add or remove precincts.



20. Select ballot rotation type.



In the **Jurisdiction** window, click the **Rotation** tab to define rotation type.

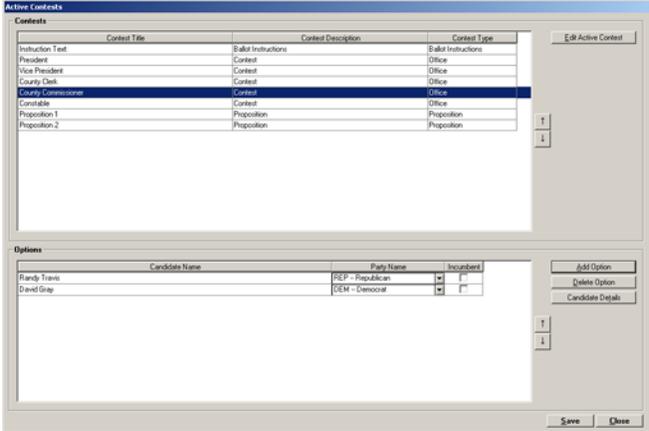
- **No Rotation** is an available option.
- A rotation index of "0" equals ballot order as presented in the **Active Contests** window.
- In California databases, the button

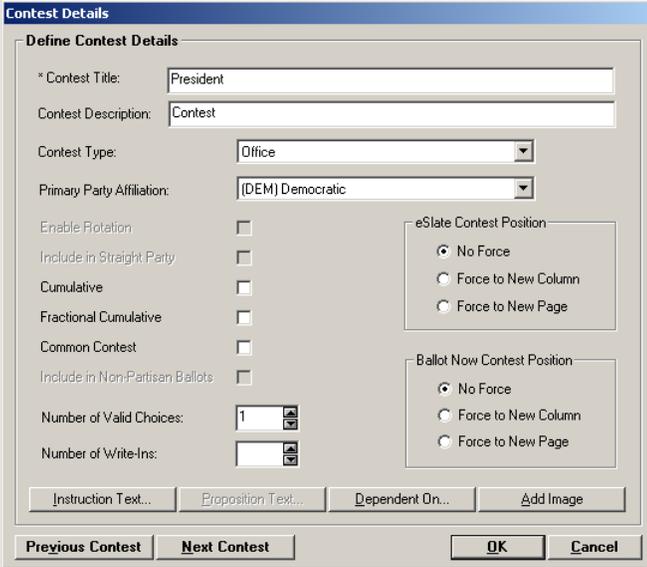


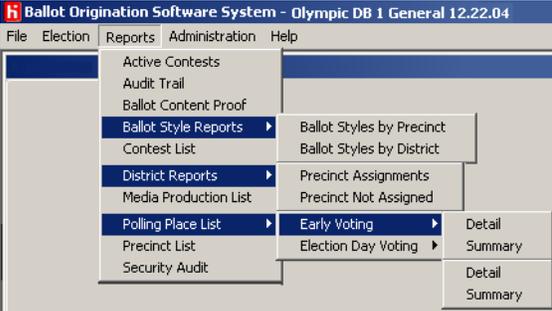
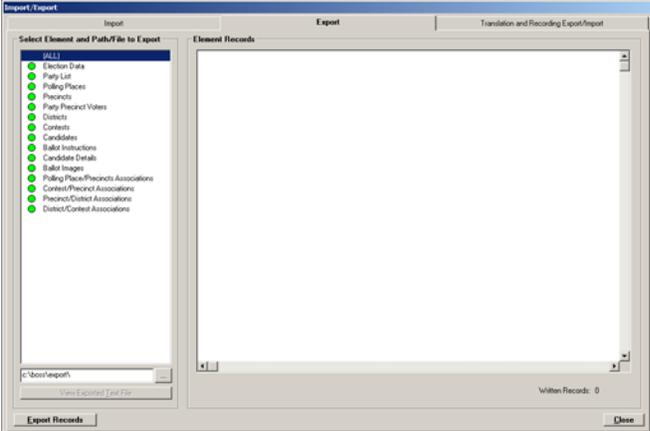
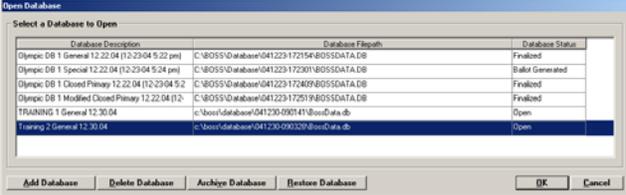
appears.

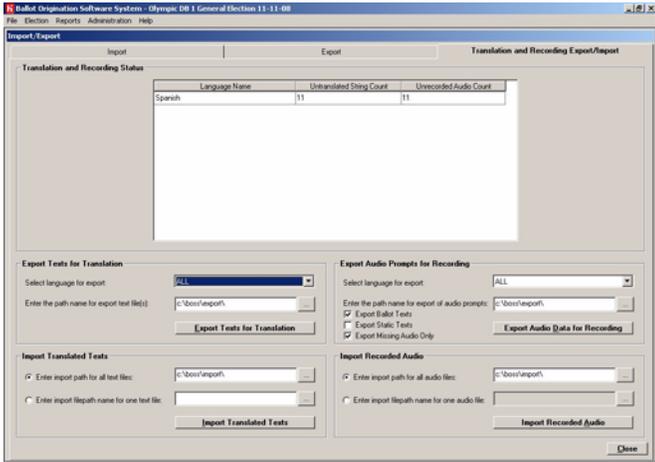
**See:**

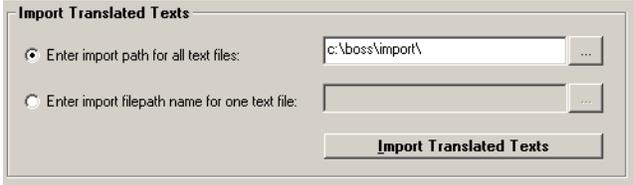
The *BOSS Operations Manual* for more information about ballot rotation.

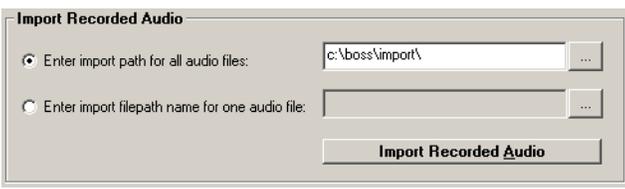
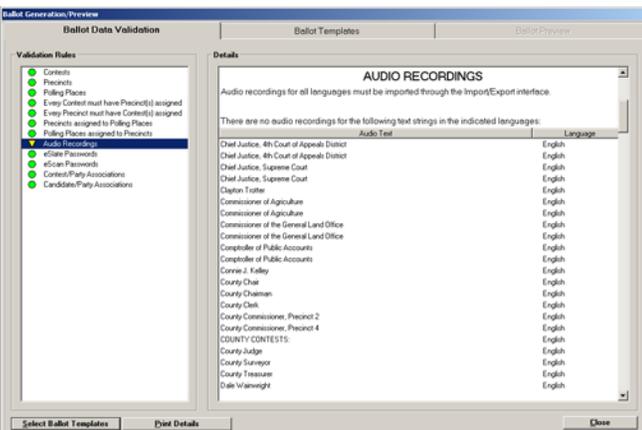
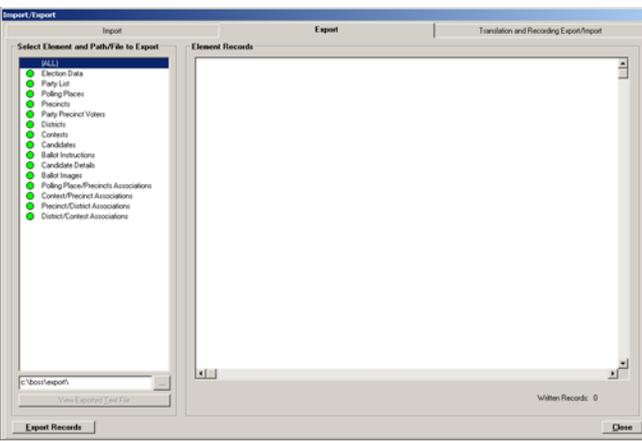
<b>Steps:</b>	<b>Details:</b>
<p>21. Add primary election contest details in the <b>Active Contests</b> window.</p>  <p>The screenshot shows the 'Active Contests' window. It has two main sections: 'Contests' and 'Options'. The 'Contests' section contains a table with columns: Contest Title, Contest Description, Contest Type, and an 'Edit Active Contest' button. The 'Options' section contains a table with columns: Candidate Name, Party Name, and Incumbent, along with 'Add Option', 'Delete Option', and 'Candidate Details' buttons. The 'Contests' table lists: Instruction Test (Ballot Instructions), President (Contest), Vice President (Contest), County Clerk (Contest), Party Organizations (Contest), Constable (Contest), Proposition 1 (Proposition), and Proposition 2 (Proposition). The 'Options' table lists: Randy Travis (REP - Republican) and David Gray (DEM - Democrat).</p>	<ul style="list-style-type: none"> <li>❑ Go to the <b>Election</b> menu and click <b>Active Contests</b>.</li> <li>❑ Actions available in the <b>Active Contests</b> window include: <ul style="list-style-type: none"> <li>• Changing contest sequence with the arrow buttons</li> <li>• Adding options (e.g., candidates)</li> <li>• Associating parties with candidates <ul style="list-style-type: none"> <li>&gt; For reporting purposes, you should associate parties with candidates in primary elections. You can avoid showing the party name for each candidate on the ballot by leaving the <b>Party Name</b> fields blank in the <b>Party Maintenance</b> window.</li> </ul> </li> <li>• Adding candidate details (e.g., delegates, occupations)</li> <li>• Changing option sequence with the arrow buttons</li> </ul> </li> </ul>

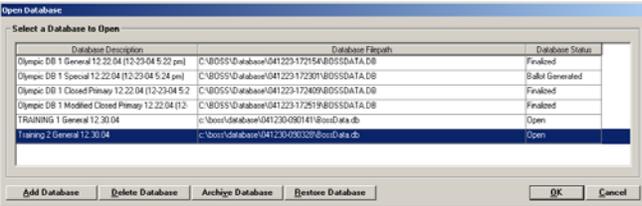
Steps:	Details:
<p><b>P</b></p> <p>22. Edit primary election active contests in the <b>Contest Details</b> window.</p> 	<p><input type="checkbox"/> Click the <b>Edit Active Contest</b> button or double-click a contest to open the <b>Contest Details</b> window (also available from the <b>Jurisdiction</b> window, <b>Contests</b> tab).</p> <p><input type="checkbox"/> Actions available in the <b>Contest Details</b> window include:</p> <ul style="list-style-type: none"> <li>• Identifying contest type (straight party, office, proposition)</li> </ul> <p><b>P</b></p> <ul style="list-style-type: none"> <li>• Assigning Primary Party affiliation <ul style="list-style-type: none"> <li>&gt; Assign each contest to the Party identified in the <b>Contest Description</b> field</li> </ul> </li> <li>• Enabling Rotation (checked and grayed when <b>No Rotation</b> is selected on the <b>Rotation</b> tab)</li> <li>• Identifying cumulative contests</li> <li>• Identifying fractional cumulative contests</li> <li>• Identifying common contests (leave unchecked unless otherwise directed)</li> </ul> <p><b>P</b></p> <ul style="list-style-type: none"> <li>• Including contest in Nonpartisan ballots, if a modified closed primary election</li> <li>• Identifying the number of valid choices and write-ins</li> <li>• Adding contest-level instructions</li> <li>• Adding Proposition Text</li> <li>• Defining dependencies</li> <li>• Forcing contest position</li> <li>• Adding images to the ballot</li> </ul> <p><b>Note:</b></p> <p>Force data is not imported.</p> <p>Ballot Now contest position forces apply to all paper ballots (eScan and Ballot Now).</p> <p><b>See:</b></p> <p>“Ballot Images” on page 15.</p> <p>The <i>BOSS Operations Manual</i> for more information about adding images.</p>

Steps:	Details:
<p>23. Proofread the available ballot reports, and make corrections if necessary.</p> 	<p><input type="checkbox"/> Before generating, go to the <b>Reports</b> menu and click the following menu items:</p> <ul style="list-style-type: none"> <li>• <b>Active Contests</b> to view the “Active Contests Options List” report</li> <li>• <b>Contest List</b> to view the “Contest List with Details” report</li> <li>• <b>District Reports, Precinct Assignments</b> to view the “Assigned Precinct Report”.</li> </ul> <p><b>Note:</b> “Ballot Content Proof” and ballot style reports are not available until after generating and accepting the ballot.</p>
<p>24. As a risk-reduction measure, back up BOSS data and the database. 24.1 Export all BOSS data files.</p> 	<p><input type="checkbox"/> Go to the <b>Election Menu</b>, click <b>Import/Export</b>, and then click the <b>Export</b> tab.</p> <ul style="list-style-type: none"> <li>• Create an election folder with the date and time.</li> <li>• Highlight <b>(ALL)</b> in the <b>Select Element and Path/File to Export</b> panel.</li> <li>• Click the  button and navigate to the folder you created.</li> <li>• Click the <b>Export Records</b> button and respond to the dialog boxes that appear.</li> <li>• Save export files to CD.</li> <li>• Repeat this process after database changes.</li> </ul> <p><b>Note:</b> Page layout and password data are not exported.</p>
<p>24.2 Archive the database and save to CD.</p> 	<p><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>.</p> <ul style="list-style-type: none"> <li>• Create an election folder with the date and time.</li> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Follow prompts to navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> <p><b>See:</b> “Appendix D: Backing Up Election Databases” on page 113.</p>

<b>Steps:</b>	<b>Details:</b>
<p>25. (Optional) Prepare for ballot translation and transliteration by proofreading the existing ballots.</p>	<p><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>. Click the <b>Ballot Templates</b> tab, choose one or more templates, and click the <b>Generate Preview</b> button. On the <b>Ballot Preview</b> tab, proofread each ballot style and click <b>Reject</b> when exiting the window.</p>
<p>26. Create four folders on the PC Desktop for data import and export.</p>	<p><input type="checkbox"/> Hart recommends that you give the folders the following names:</p> <ul style="list-style-type: none"> <li>• Export Text</li> <li>• Import Text</li> <li>• Export Audio</li> <li>• Import Audio</li> </ul>
<p>27. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 32.</p> 	<p><input type="checkbox"/> Go to the <b>Election</b> menu, click <b>Import/Export</b>, and then click the <b>Translation and Recording Export/Import</b> tab.</p> <p><input type="checkbox"/> Navigate to the Export Text folder and click the <b>Export Texts for Translation</b> button.</p> <p><b>See:</b> The <i>BOSS Operations Manual</i> for detailed information about foreign language import/export.</p>
<p>28. Move the contents of the Export Text folder into the Jobs folder.</p>	<p><b>Note:</b> You must move files for translation into the Jobs folder in order for TRANS to recognize them.</p>
<p>29. Use TRANS to translate text for multi-language ballots.</p>	<p><b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.</p>
<p>30. Move the text files (.xlf) from the Jobs folder to the Import Text folder.</p>	<p><b>Note:</b> You must move the translated files from the Jobs folder in order to use them in BOSS.</p>

<b>Steps:</b>	<b>Details:</b>
<p>31. Import translated text for multi-language ballots.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Import Text folder and click the <b>Import Translated Texts</b> button.</p>
<p>32. Export English text for recording in TRANS.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Export/Import</b> tab of the <b>Import/Export</b> window, navigate to Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</p> <p><input type="checkbox"/> English audio prompts can be exported, recorded, and imported at any time after completing data entry and before generating the ballot.</p> <p><input type="checkbox"/> English audio can be recorded while foreign language text is being translated.</p> <p><b>See:</b> "Recording Audio" on page 19.</p>
<p>33. Export audio prompts for multi-language audio recording in TRANS, if applicable.</p> 	<p><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</p> <p><b>See:</b> "Translating Foreign Language Ballot Text" on page 18.</p>
<p>34. Move the contents of the Export Audio folder into the Jobs folder.</p>	<p><b>Note:</b> You must move files for recording into the Jobs folder in order for TRANS to recognize them.</p>
<p>35. Use TRANS to record English and, if applicable, multi-language audio.</p>	<p><b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.</p>
<p>36. Move the recorded audio files (.xml and .wav) to the Import Audio folder.</p>	<p><b>Note:</b> You must move the recorded files from the Jobs folder in order to use them in BOSS.</p>

Steps:	Details:
<p>37. Import recorded audio files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window:             <ul style="list-style-type: none"> <li>• Click the “Enter import path for all audio files” radio button to import multiple audio files for a multi-language ballot.</li> <li>• Click the “Enter import filepath name for one audio file” radio button to import one audio file for an English-only ballot.</li> </ul> </li> <li><input type="checkbox"/> Navigate to the Audio Import folder and click the  button.</li> </ul>
<p>38. Verify that the ballot is complete.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>.</li> <li><input type="checkbox"/> View the <b>Ballot Data Validation</b> tab to verify that the ballot is complete.             <ul style="list-style-type: none"> <li>• A green circle indicates that the information is complete.</li> <li>• A yellow triangle indicates that information is incomplete, but you can still generate the ballot.</li> <li>• A red square indicates that the information is incomplete and you cannot generate the ballot until you supply the missing information.</li> </ul> </li> </ul>
<p>39. As a risk-reduction measure, back up BOSS data and the database.</p> <p>39.1 Export all BOSS data files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, BOSS data files).</li> <li><input type="checkbox"/> Go to the <b>Election Menu</b>, click <b>Import/Export</b>, and then click the <b>Export</b> tab.             <ul style="list-style-type: none"> <li>• Highlight <b>(ALL)</b> in the <b>Select Element and Path/File to Export</b> panel.</li> <li>• Click the  button and navigate to the folder you created.</li> <li>• Click the  button and respond to the dialog boxes that appear.</li> <li>• Save the export files to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul>

<b>Steps:</b>	<b>Details:</b>
<p>39.2 Export all translated text and recorded audio.</p>  	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, translated text and audio).</li> <li><input type="checkbox"/> After completing translations and audio, export ALL foreign language text and ALL audio from the <b>Translation and Recording Export/Import</b> tab. <ul style="list-style-type: none"> <li>• Navigate to the folder you created and click the  button.</li> <li> Deselect the <input type="checkbox"/> <b>Export Missing Audio Only</b> checkbox.</li> <li>• Navigate to the folder you created and click the  button.</li> <li>• Save the export files to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul>
<p>39.3 Archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the  button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul> <p><b>See:</b>  “Appendix D: Backing Up Election Databases” on page 113.</p>

**Steps:****40. Select templates and preview ballots.**

Template Description	Language	Style	Version
<input type="checkbox"/> Large Print One Column	English	Modern	2.0.6
<input type="checkbox"/> Large Print One Column	Spanish	Modern	2.0.6
<input type="checkbox"/> Standard eSlate Two Column	English	Modern	2.0.4
<input type="checkbox"/> Standard eSlate Two Column	Spanish	Modern	2.0.4

Template Description	Language	Style	Version
<input type="checkbox"/> Condensed Three Column Bilingual Letter	Spanish	Modern	2.0.10
<input type="checkbox"/> Condensed Three Column Letter	Spanish	Modern	2.0.10
<input type="checkbox"/> Condensed Three Column Letter	English	Modern	2.0.10
<input type="checkbox"/> Three Column Bilingual Letter	Spanish	Modern	2.0.5
<input type="checkbox"/> Three Column Letter	Spanish	Modern	2.0.5
<input type="checkbox"/> Three Column Letter	English	Modern	2.0.5
<input type="checkbox"/> Two Column Bilingual Letter	Spanish	Modern	2.0.5
<input type="checkbox"/> Two Column Letter	Spanish	Modern	2.0.5
<input type="checkbox"/> Two Column Letter	English	Modern	2.0.5

**Details:**

- Go to the **Election** menu and click **Ballot Formats**.
- Click the **Ballot Templates** tab and choose templates and paper size.
  - Select paper ballot (Ballot Now/eScan) and eSlate DRE ballots in all formats and languages needed.
  - If images have been added to the ballots, choose image-enabled templates. To obtain these templates, contact Hart InterCivic.
  - Take written note of template(s) selected.
-  If choosing paper ballot templates for use with the eScan, you must create passwords in the **eScan Options** window. Although eScan cannot be operated without passwords, it is possible to generate the ballot in BOSS without defining eScan passwords.
-  The eScan device does *not* accept 11x17 ballots.
- Click the  button.

**41. Proofread the ballot on the Ballot Preview tab.**

**Official Ballot**  
Olympic Names Election  
Sample County  
December 22, 2004  
Page 1 of 2  
Precinct 2001A

**Instruction Note:**  
To vote for the candidate of your choice, or to vote "For" or "Against" a proposition on the ballot, rotate the SELECT wheel to highlight your choice. Press ENTER to mark your choice. Press the HELP button for assistance.

**State Representative, District 5**

- Dan Jansen (Yellow)
- Jackie Joyner-Kersey (Orange)
- Randy Snow (Nongpartisan)

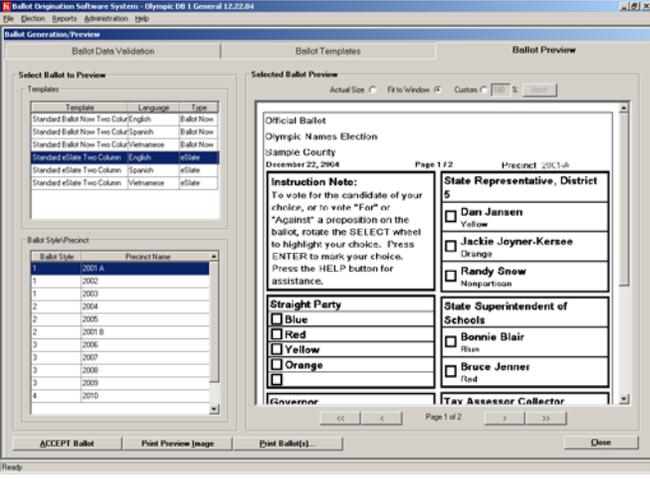
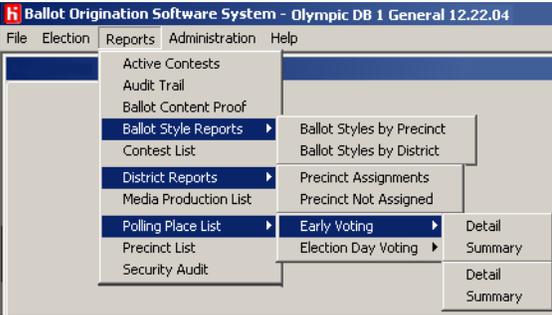
**State Superintendent of Schools**

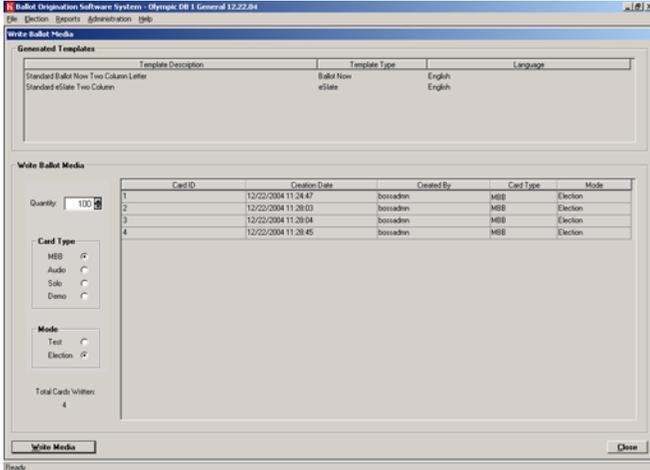
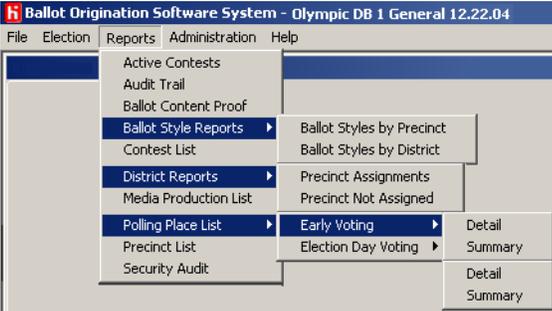
- Bonnie Blair (Blue)
- Bruce Jenner (Red)

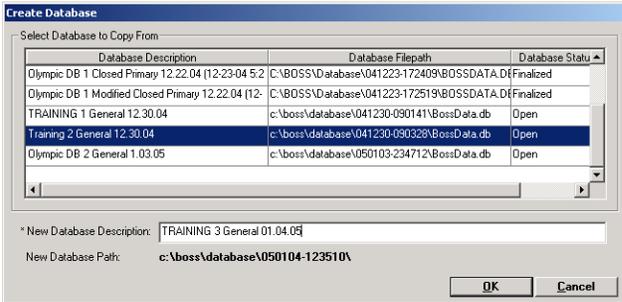
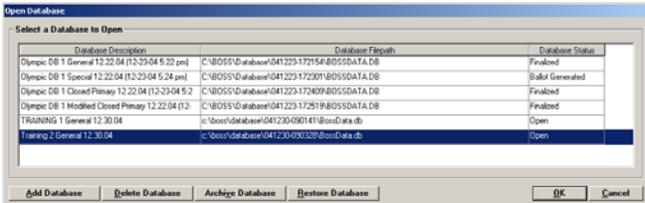
- Print ballot previews in order to proofread all formats, ballot styles, and languages, before accepting ballot generation.
- Determine the maximum length of any ballot, and consider revising format to reduce length (e.g., to keep paper ballots to one sheet).

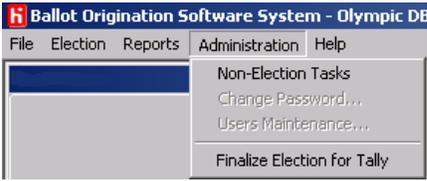
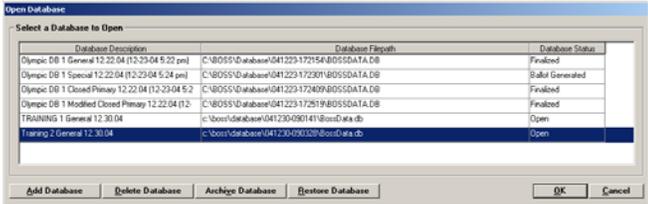
**Tip(s):**

Right-click the ballot image and choose **Save Picture As...** in order to save the ballot page as a "\*.bmp" graphic file (for use in sample ballot flyers, for example).

Steps:	Details:
<p>42. Generate the ballot, or go back to make corrections.</p> 	<p> Once you accept the ballot, you cannot enter new data in this BOSS database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> To accept ballot generation, click the  button on the <b>Ballot Preview</b> tab. <ul style="list-style-type: none"> <li>• Confirm ballot acceptance in the dialog box that appears.</li> </ul> </li> <li><input type="checkbox"/> To reject ballot generation, close the <b>Ballot Generation/Preview</b> window and click <b>Reject</b>.</li> </ul>
<p>43. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Before accepting ballot generation, the BOSS application will prompt you to enter the eCM PIN.</li> </ul>  <ul style="list-style-type: none"> <li><input type="checkbox"/> The eCM can be removed from the USB port after the ballot has been accepted.</li> <li><input type="checkbox"/> Store the eCM in a secure location.</li> </ul>
<p>44. Print Ballot Style reports.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Reports</b> menu and click the following menu items: <ul style="list-style-type: none"> <li>• <b>Ballot Content Proof</b> to view and print a report detailing precincts, contests, and registered voters per ballot style</li> <li>• <b>Ballot Style by District</b> to view and print a report detailing all ballot styles and associated districts and precincts</li> <li>• <b>Ballot Style by Precinct</b> to view and print a report detailing all ballot styles and assigned precincts (for election organized by precinct-contest associations)</li> </ul> </li> </ul>

Steps:	Details:
<p>45. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.</p> 	<p><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Write Ballot Media</b>.</p> <p> Decide the number of cards needed for the election, including recovery and SERVO MBBs.</p> <p><b>See:</b></p> <ul style="list-style-type: none"> <li>“Planning Ballot Media Quantities” on page 24.</li> <li>Select the desired <b>Quantity</b>, <b>Card Type</b> and <b>Mode</b> options</li> <li>Click the  button and follow the prompts to create media.</li> </ul> <p><b>See:</b></p> <ul style="list-style-type: none"> <li>“Planning for eScan Use” on page 21.</li> <li>“Planning for Demonstration eSlate Use” on page 23.</li> </ul>
<p>46. Print reports.</p> 	<p><input type="checkbox"/> Go to the <b>Reports</b> menu and click, at minimum, the following:</p> <ul style="list-style-type: none"> <li><b>Audit Trail</b> to view and print a report giving a record of operator actions</li> <li><b>Media Production List</b> to view and print a report documenting all media produced by sequential serial number, card type, time created, and card mode.</li> <li><b>Polling Place List/Early Voting/Summary</b> and <b>Polling Place List/Election Day/Summary</b> to view and print reports necessary for warehouse/support personnel or JBC operators to assign polling place IDs to JBCs.</li> </ul> <p> If the eScan is to be used in Absentee mode, obtain the Absentee polling place ID by viewing the <b>Polling Places</b> tab in the <b>Jurisdiction</b> window after generating with paper ballot template(s).</p>

<b>Steps:</b>	<b>Details:</b>
<p>47. Verify that the MBBs and Audio cards contain the required information in the desired format.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> View/listen to test mode cards on the JBC and DAU eSlate, eScan, and/or with Ballot Now.</li> <li><input type="checkbox"/> Conduct a Logic and Accuracy Test (L&amp;A).</li> </ul> <p><b>See:</b></p> <p>The <i>Tally Training Manual</i> for instructions on conducting an L&amp;A with the system.</p>
<p>48. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.</p> 	<p><b>See:</b></p> <p>“Database Management” on page 9.</p> <p>“Appendix F: Copying Forward a BOSS Database” on page 117.</p>
<p>49. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn the database to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul> <p><b>See:</b></p> <p>“Appendix D: Backing Up Election Databases” on page 113.</p>

Steps:	Details:
<p>50. Finalize the BOSS database for Tally.</p> 	<p> Once the BOSS database is finalized, media can no longer be created from this database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Verify that all necessary media has been created.</li> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Finalize Election for Tally</b>.</li> </ul>
<p>51. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the  button.</li> <li>• Follow prompts to navigate to the target location.</li> <li>• Name and time-stamp, and then save, the database.</li> <li>• Burn the database to CD.</li> <li>• Repeat this process after the database changes.</li> </ul> </li> </ul> <p><b>See:</b>  “Appendix D: Backing Up Election Databases” on page 113.</p>
<p>52. Exit BOSS.</p> 	

**Notes:**

**Notes:**



# Chapter 4

## Using Imported Data to Create an Election

### Overview of the Data Import Process

You can create BOSS databases by manually entering data in BOSS as shown in the previous chapters, or by importing ASCII text files through the **Import** tab of the **Import/Export** window. This chapter outlines procedures for creating a BOSS database by importing data files.

### Guidelines Regarding Data Entry Methods

You can build a BOSS database with a mix of imported ASCII data and data manually entered through the BOSS user interface. ASCII text files show the data in tab-delimited fields and may *only* contain numeric values and English text. Some BOSS windows require updating in the BOSS GUI after a data import.

### File Formats

BOSS data import files are ASCII text files containing records of tab-delimited fields. These files might be exports from a previous BOSS database, exports from a voter registration system, or files created in MS Excel and saved as tab-delimited text files.

- It is not necessary that non-numeric (character, variable character) fields be enclosed by double quotation marks, unless it is intended for a tab character to be part of the field.
- All imported external IDs will be imported as system IDs and used for processing and export identifiers when the  Import External IDs as System IDs checkbox is selected. If import file external IDs are numeric, this checkbox should be selected.
- All imported external IDs are preserved in BOSS, and BOSS creates its own set of unique identifiers upon import when the  Import External IDs as System IDs checkbox is *not* selected. BOSS uses these unique identifiers for processing and export identifiers. If import file external IDs are alphanumeric, this checkbox should *not* be selected.
- If creating data files, refer to the file format tables in the *BOSS Operations Manual*. Note the following data type descriptions:
  - > “Varchar” (alphanumeric variable character) data fields are those that have a limited character length
  - > “Char” (alphanumeric character) data fields are those that have a required character length
  - > “Integer” (positive whole number) data fields have required number values and associations
  - > “TinyInt” (positive whole number) data fields are those that have required number values of “0” or “1”
  - > “Numeric” data fields are fields containing number values
  - > “Unsigned Int” (non-negative whole number) data fields have required number values and associations.

## Data File Contents

The following table lists the data files that may be imported into, or exported from, BOSS through the **Import** and **Export** tabs in the **Import/Export** window. Data files are listed here in the order they appear in the tabs.

<b>Data File (File Name):</b>	<b>Related BOSS Window/Tab:</b>
Election Data (ELECTION)	<b>Jurisdiction</b> window, <b>Jurisdiction</b> and <b>Rotation</b> tabs, and <b>eSlate Options</b> window
Party List (PARTY)	<b>Party Maintenance</b> window
Ballot Instructions (BALLOT_INSTRUCTION)	<b>Ballot Instructions</b> window
Polling Places (POLLING_PLACE)	Polling place and party data in the <b>Jurisdiction</b> window, <b>Polling Places</b> tab
Precincts (PRECINCT)	Precinct and aggregated registered voter data per precinct in the <b>Jurisdiction</b> window, <b>Precincts</b> tab
Party Precinct Voters (PARTY_VOTERS)	Party-specific registered voter data per precinct in the <b>Jurisdiction</b> window, <b>Precincts</b> tab
Polling Place and Precinct Associations (POLLING_PLACE_AND_PRECINCT)	Precinct-to-polling place data in the <b>Jurisdiction</b> window, <b>Polling Places</b> tab
Districts (DISTRICT)	District data for the <b>Jurisdiction</b> window, <b>Districts</b> tab
Precinct and District Associations (PRECINCT_AND_DISTRICT)	Precinct-to-district data in the <b>Jurisdiction</b> window, <b>Districts</b> tab
Contests (CONTEST)	Contest data in the <b>Jurisdiction</b> window, <b>Contests</b> tab, <b>Active Contests</b> window, and <b>Contest Details</b> window
District and Contest Associations (DISTRICT_AND_CONTEST)	District-to-contest data in the <b>Jurisdiction</b> window, <b>Contests</b> tab for precinct/district/contest elections
Precinct-Level Contests (PRECINCT_LEVEL_CONTEST)	Contest data in the <b>Jurisdiction</b> window, <b>Precinct-Level Contests</b> tab, <b>Active Contests</b> window, and <b>Contest Details</b> window
Precinct and Precinct-Level Contest Associations (PLC_AND_PRECINCT)	Precinct-to-contest data in the <b>Jurisdiction</b> window, <b>Precinct-Level Contests</b> tab
Candidates (CANDIDATE)	Candidate data in the <b>Active Contests</b> window
Candidate Details (CANDIDATE_DETAIL)	Candidate detail data in the <b>Active Contests</b> window
Contest and Precinct Associations (CONTEST_AND_PRECINCT)	Contest-to-precinct data in the <b>Jurisdiction</b> window, <b>Contests</b> tab
Ballot Images (BALLOT_IMAGES)	Ballot image data in the <b>Add Image</b> window

**See:**

The *BOSS Operations Manual* for specific information on import/export data files and file formats.

## Best Practices for Successful Data Import

The following are some recommendations and notes regarding importing data into BOSS.

- ❑ Initially, imports should be performed on a blank BOSS database created from the system default.



The following data elements are *not* imported, and must be entered via the BOSS GUI:

- Language choices for the ballot (enter via the **Select Language Details** window)
  - Election Day Close Time (enter via the **eSlate Options** and **eScan Options** windows)
  - Early Voting Suspend Time (enter via the **eSlate Options** and **eScan Options** windows)
  - Retrievable Early Voting Ballots selection (enter via the **eSlate Options** window)
  - eSlate and eScan Passwords (enter via the **eSlate Options** and **eScan Options** windows)
  - eSlate Contest Position forces (enter via the **Contest Details** window)
  - Ballot Now/eScan paper ballot Contest Position forces (enter via the **Contest Details** window)
- ❑ The “Election Date” field in the “Election Data” file may not be prior to the current date set on the PC being used to create the database.
    - If the “Election Date” field is prior to the current date, correct the date in the import file and re-import (or use the “Repair” function in BOSS).



“Absentee” polling places associated with Ballot Now cannot be imported from the “Polling Places” or “Polling Place and Precinct Associations” data files.

- If data files were created by exporting from a previously generated BOSS database that included Ballot Now formatting, delete the “Absentee” associated fields from the import files before importing (or use the “Repair” function in BOSS). BOSS automatically creates an “Absentee” polling place and precinct associations when a Ballot Now format is generated.
- ❑ It is most efficient to choose the import “ALL” option, rather than importing one data file at a time. If some data does not require replacement, click **Cancel** to skip those files.
  - ❑ It is most efficient to copy import data files to the directory C:\Boss\Import.
    - This is the default location for BOSS import files, so using this directory allows you to avoid navigating to another location.
    - By copying to this directory original data files are preserved in a separate location.
  - ❑ It is sometimes more efficient and effective to cancel the import process and correct the import file rather than attempting to repair the import data or commit without repair through the BOSS **Import/Export** window, **Import** tab.
    - Errors in the original import file can be viewed through the BOSS **Import/Export** window, **Import** tab without necessitating repairing from that location or committing without repair.
    - Correcting the original import file directly ensures that the import file is an accurate record of the actual data in BOSS.
    - Committing the defective import without repair may lead to database, or ballot style, errors because of missing data.
    - Once the import “ALL” process is stopped in order to make a repair, all following imports must proceed one data file at a time (this slows down the process).

### Tip(s):

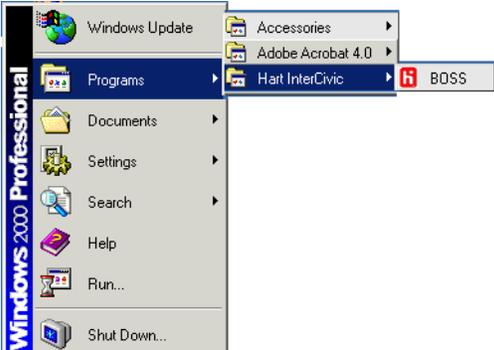
The “Repair” function may be used successfully to complete import processes without correcting source files. If this is done, the data should then be exported from BOSS in order to create new source data files reflecting the contents of the BOSS election database.

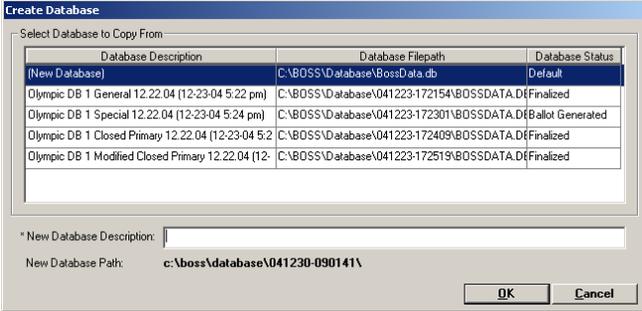
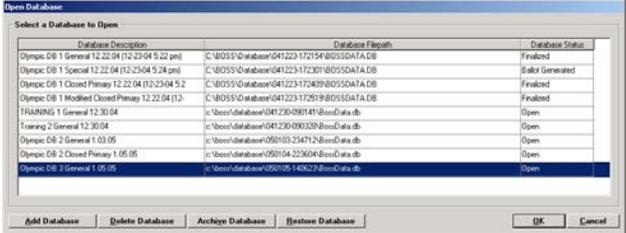
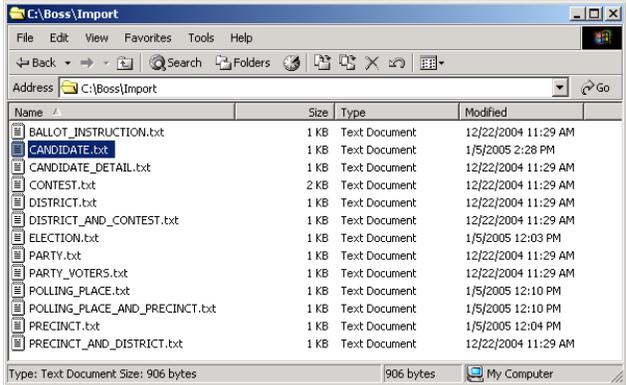
## Data Import Procedures

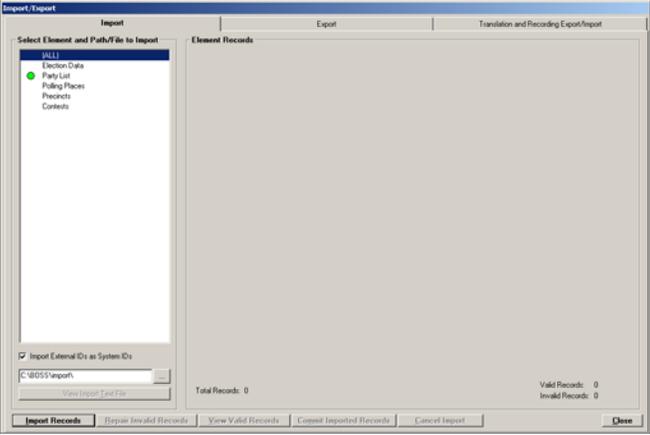
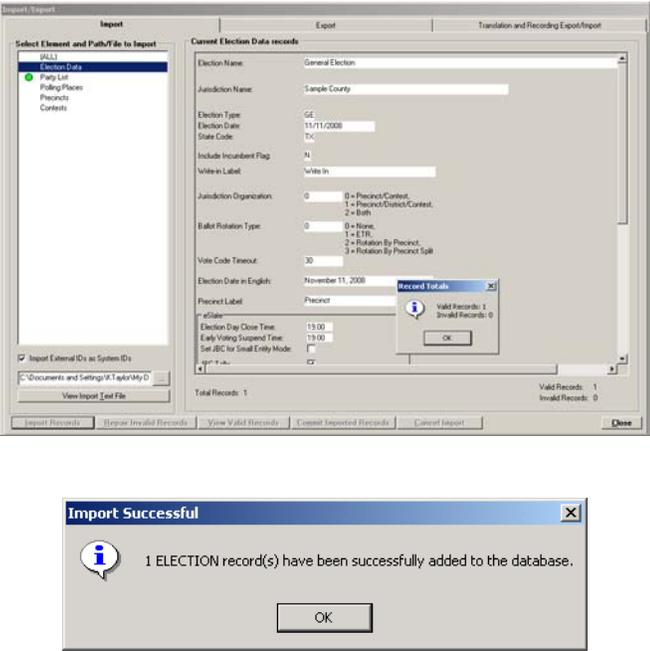
Procedures are presented here in brief. General, Special, and Primary elections can be created via data imports. The examples here show a General Election.

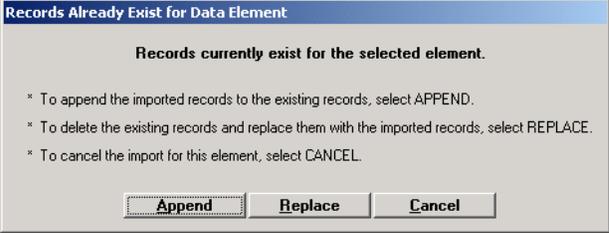
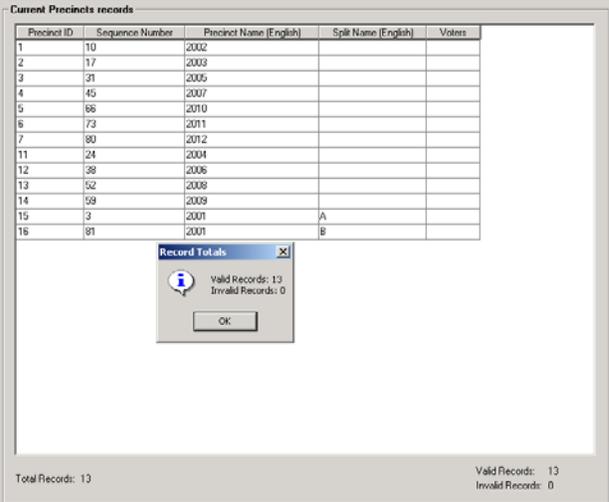
**See:**

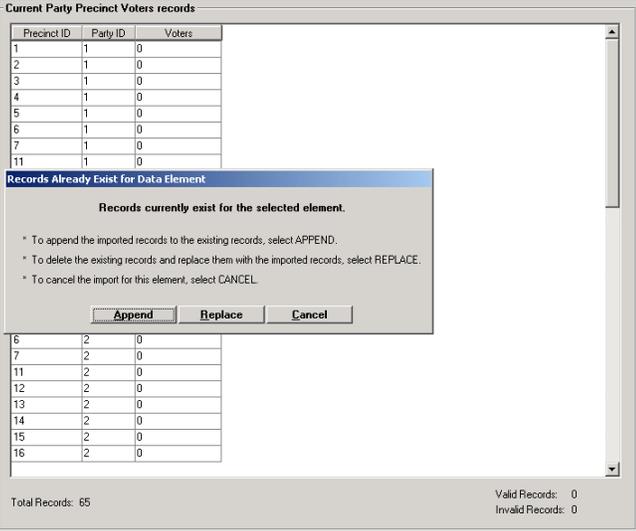
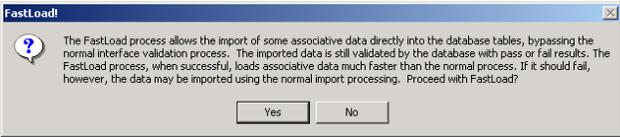
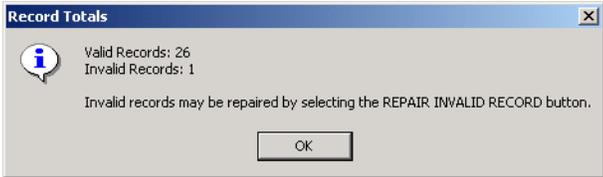
The *BOSS Operations Manual* for detailed information on performing data imports.

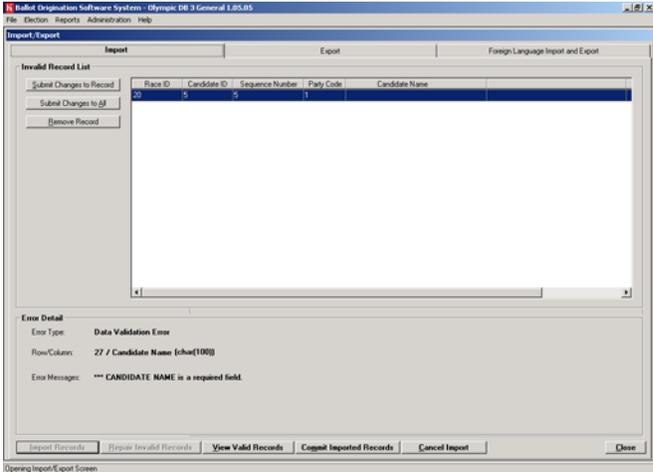
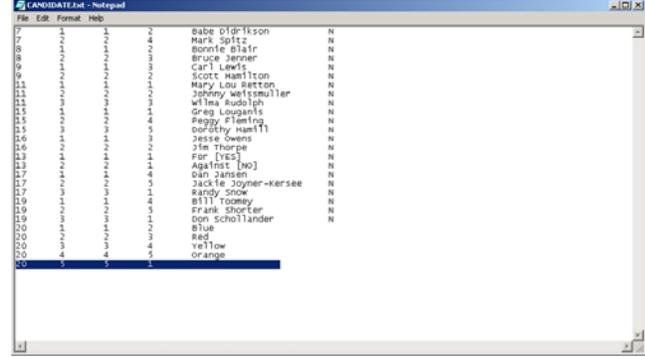
Steps:	Details:
<p>1. Double-click the BOSS desktop shortcut to open the application.</p> 	<p>OR Go to <b>Start/Programs/Hart InterCivic/BOSS</b></p> 
<p>2. Log in to BOSS as a user with all permissions.</p> 	
<p>3. If you haven't already done so, set up BOSS users and permission levels.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Non-Election Tasks</b>. Click <b>Yes</b>.</li> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Users Maintenance</b>.</li> </ul> <p><b>See:</b>                      "Establishing BOSS User Permissions" on page 12.</p>

Steps:	Details:
<p>4. Create a BOSS database named “&lt;Description # Election Type date&gt;”.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. In the <b>Open Database</b> window, click the <b>Add Database</b> button.</li> <li><input type="checkbox"/> In the <b>Create Database</b> window that appears, select a database copy from, and complete the <b>New Database Description</b> field with a description of the database, the sequence number, the election name, and the date.</li> <li><input type="checkbox"/> To create a blank database, copy the database from “(New Database)”.</li> <li><input type="checkbox"/> Click <b>OK</b>.</li> </ul> <p><b>See:</b></p> <p>Suggested naming conventions in “Database Management” on page 9.</p>
<p>5. Open the new BOSS database.</p> 	<p>In the <b>Open Database</b> window, double-click the target database.</p>
<p>6. Create or obtain import files and copy to C:\Boss\Import.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> File source may be       <ul style="list-style-type: none"> <li>• BOSS database export</li> <li>• MS Excel documents saved as tab-delimited text files</li> <li>• Voter registration system</li> <li>• Election management system</li> <li>• Other</li> </ul> </li> <li><input type="checkbox"/> All BOSS ballot data import files are ASCII text files containing records of tab-delimited fields.</li> </ul> <p><b>Note:</b></p> <p>If importing via the import “ALL” function in BOSS, filenames must match those shown. If importing one data file at a time, you may vary filenames and navigate to one file at a time.</p>

Steps:	Details:
<p>7. Go to the <b>Election</b> menu, click <b>Import/Export</b>, and then click the <b>Import</b> tab.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> The database is empty at this point.</li> <li><input type="checkbox"/> The BOSS default database includes the “NP” party code, so the <b>Party List</b> appears completed, as indicated by the green circle.</li> <li><input type="checkbox"/> Verify the following settings:             <ul style="list-style-type: none"> <li>• <b>(ALL)</b> is highlighted</li> <li>• <input checked="" type="checkbox"/> <b>Import External IDs as System IDs</b> is selected if external ID data is numeric</li> <li>• <input list-style-type:="" none;"="" type="text" value="c:\boss\import\' displays as the filepath                 &lt;ul style="/> <li>➢ If necessary, click the  button to navigate to the folder containing your import data.</li> </li></ul> </li> </ul>
<p>8. Begin importing ballot data.</p>	<p>Click the  button.</p>
<p>9. Respond to prompts confirming import processes.</p> 	<p>BOSS will proceed down the list of data files in the target location and listed in the <b>Select Element and Path File to Import</b> panel.</p>

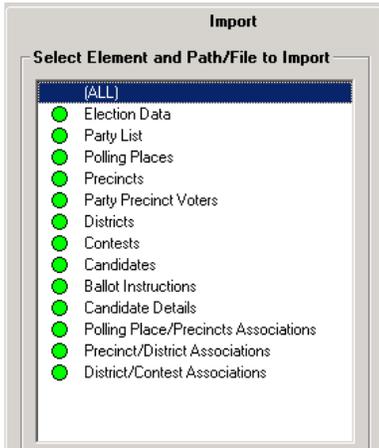
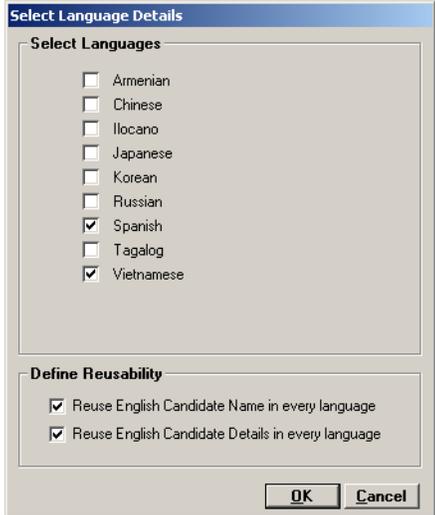
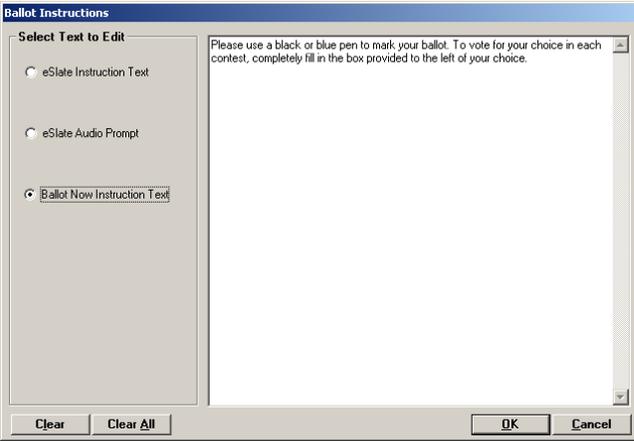
Steps:	Details:
<p>10. When importing the Party.txt file the <b>Records Already Exist for the Data Element</b> dialog window appears.</p> 	<p><input type="checkbox"/> The BOSS default database includes the “NP” party code, so the data from the Party.txt file appears as if completed.</p> <ul style="list-style-type: none"> <li>• Click the  button if the import file does <i>not</i> include an “NP”-Code-associated-party (i.e., you are adding parties, but the import file does not include the existing “NP” party).</li> <li>• Click the  button if the import file DOES include the “NP”-Code-associated-party (e.g., you are adding a Party Name for the “NP” party).</li> <li>• Click the  button if you are uncertain of the contents of the Party.txt file. This file will be skipped.</li> </ul>
<p>11. Confirm import of the Precinct.txt data.</p> 	<p><input type="checkbox"/> Read and respond to prompts as the data import process continues.</p> <p><b>Note:</b></p> <p>The Precinct.txt file in the example shown has “0” voters in the “Voters” data element fields.</p> <p>This aggregate number will be overwritten by the sum of the voters in all political parties for each precinct when the Party_Voters.txt file is imported.</p>

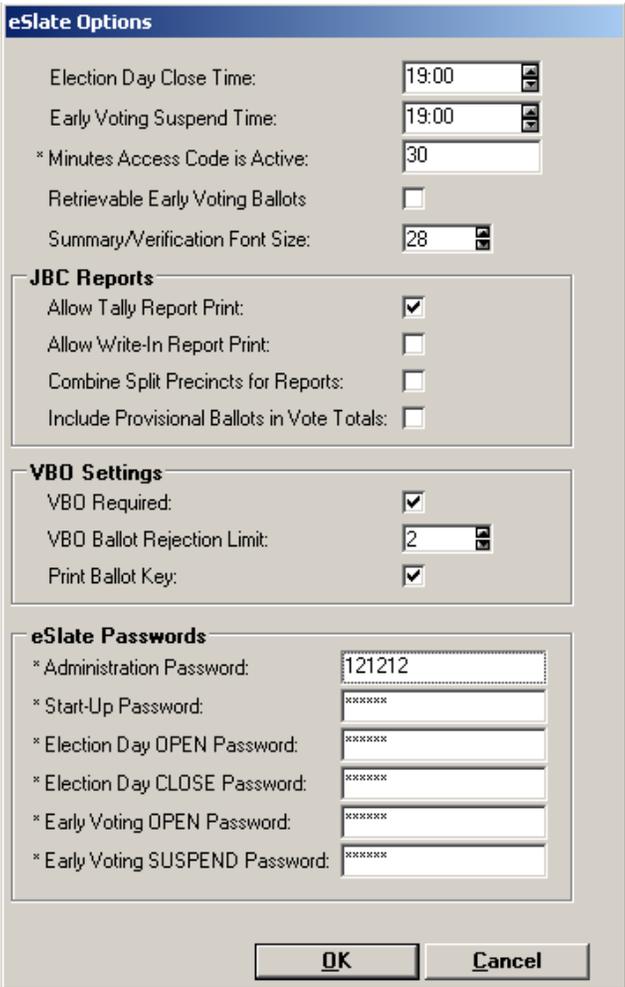
Steps:	Details:
<p>12. Proceed to update the registered voter data with the Party_Voters.txt import.</p>  <p>The screenshot shows a table titled 'Current Party Precinct Voters records' with columns 'Precinct ID', 'Party ID', and 'Voters'. Below the table is a dialog box titled 'Records Already Exist for Data Element' with the text: 'Records currently exist for the selected element.' It lists three options: 'Append', 'Replace', and 'Cancel'. The 'Replace' button is highlighted.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Replace</b> button to update the number of registered voters per precinct in the Precinct.txt import file with the aggregated numbers per precinct per party from the Party_Voters.txt import file.             <ul style="list-style-type: none"> <li>• The BOSS database will include both an aggregate of registered voters per precinct <b>AND</b> voters by party per precinct, and these numbers will agree.</li> </ul> </li> <li><input type="checkbox"/> Click the <b>Cancel</b> button if you are uncertain of the contents of the registered voter numbers in the Precinct.txt and Party_Voters.txt files. The Party_Voters.txt file will be skipped.</li> </ul>
<p>13. When BOSS encounters large import files, the BOSS <b>FastLoad!</b> dialog window appears.</p>  <p>The screenshot shows a dialog box titled 'FastLoad!' with a question mark icon. The text inside reads: 'The FastLoad process allows the import of some associative data directly into the database tables, bypassing the normal interface validation process. The imported data is still validated by the database with pass or fail results. The FastLoad process, when successful, loads associative data much faster than the normal process. If it should fail, however, the data may be imported using the normal import processing. Proceed with FastLoad?' There are 'Yes' and 'No' buttons at the bottom.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Yes</b> button to proceed.             <ul style="list-style-type: none"> <li>• Fastload simply bypasses the step of displaying the import file data on the <b>import</b> tab GUI, thus making the data processing more efficient.</li> </ul> </li> <li><input type="checkbox"/> OR Click the <b>No</b> button to proceed and display data as it is imported.</li> <li><input type="checkbox"/> Read and respond to prompts as the data import process continues.</li> </ul>
<p>14. <i>IF</i> BOSS encounters invalid records, a dialog window describing the error appears first.</p>  <p>The screenshot shows a dialog box titled 'Record Totals' with an information icon. The text inside reads: 'Valid Records: 26' and 'Invalid Records: 1'. Below this, it says: 'Invalid records may be repaired by selecting the REPAIR INVALID RECORD button.' There is an 'OK' button at the bottom.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>OK</b> button.</li> </ul>

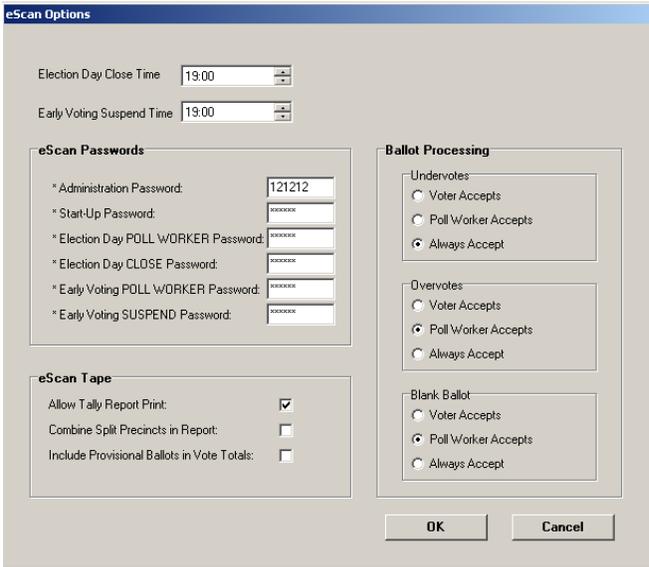
Steps:	Details:
<p>15. IF BOSS encounters invalid records, continue as if repairing the file.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the  button. <ul style="list-style-type: none"> <li>• This allows you to view the <b>Invalid Record List</b>. <ul style="list-style-type: none"> <li>&gt; You can identify and resolve the error in the source document.</li> <li>&gt; <i>OR</i> You can correct the error using the “Repair” function.</li> </ul> </li> </ul> </li> </ul>
<p>16. IF BOSS encounters invalid records, the <b>Invalid Record List</b> displays.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> View the <b>Error Detail</b> panel. Take note of the details: <ul style="list-style-type: none"> <li>• Error type</li> <li>• Row/column</li> <li>• Error messages</li> </ul> </li> <li><input type="checkbox"/> Click the  button and proceed to correct the error in the source file.</li> <li><input type="checkbox"/> <i>OR</i> Click the  button and then the  button and follow prompts to repair the data from the file.</li> </ul> <p><b>Tip(s):</b> If repairing the data as described here, export all data after successfully completing import. This will create new source files.</p>
<p>17. IF correcting the source file, open the source file and correct the error.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> In this example, the last row included a candidate with no candidate name.</li> <li><input type="checkbox"/> Correct the error, save the changes in the original file, copy to C:/Boss/Import, and return to the <b>Import</b> tab of the <b>Import/Export</b> window.</li> </ul>

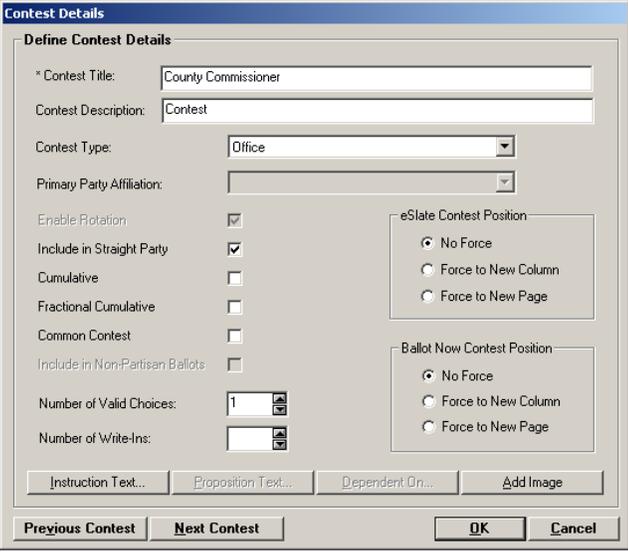
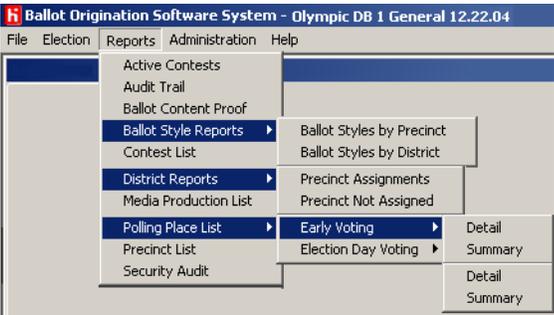
<b>Steps:</b>	<b>Details:</b>
<p>18. <i>IF</i> correcting the source file, select <b>(ALL)</b> and continue data import.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p style="text-align: center; font-size: small;">Select Element and Path/File to Import</p> <div style="border: 1px solid gray; padding: 2px;"> <p style="text-align: center; margin: 0;">(ALL)</p> <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Election Data</li> <li><input checked="" type="radio"/> Party List</li> <li><input checked="" type="radio"/> Polling Places</li> <li><input checked="" type="radio"/> Precincts</li> <li><input checked="" type="radio"/> Party Precinct Voters</li> <li><input checked="" type="radio"/> Districts</li> <li><input checked="" type="radio"/> Contests</li> <li><input type="radio"/> Candidates</li> <li><input type="radio"/> Ballot Instructions</li> <li><input type="radio"/> Candidate Details</li> <li><input type="radio"/> Polling Place/Precincts Associations</li> <li><input type="radio"/> Precinct/District Associations</li> <li><input type="radio"/> District/Contest Associations</li> </ul> </div> <p style="margin-top: 5px;"><input checked="" type="checkbox"/> Import External IDs as System IDs</p> <p style="margin-top: 5px;">c:\boss\import\ <span style="float: right;">...</span></p> <p style="text-align: center; font-size: x-small; margin-top: 5px;">View Import Text File</p> </div>	<div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p style="text-align: center; font-weight: bold; border: 1px solid black; display: inline-block; padding: 2px 5px;">Import Records</p> </div> <p><input type="checkbox"/> Click the <span style="border: 1px solid gray; padding: 2px 5px;">Import Records</span> button.</p> <p><input type="checkbox"/> Read and respond to prompts to replace, append, or cancel/skip existing data as the data import process continues.</p> <div style="border: 1px solid gray; padding: 2px; margin: 10px 0;"> <p style="font-weight: bold; font-size: small;">Tip(s):</p> <p>Click the <span style="border: 1px solid gray; padding: 2px 5px;">Cancel</span> button to skip data files already successfully imported. The import of that file is cancelled, and BOSS skips to the next file in the list.</p> </div>

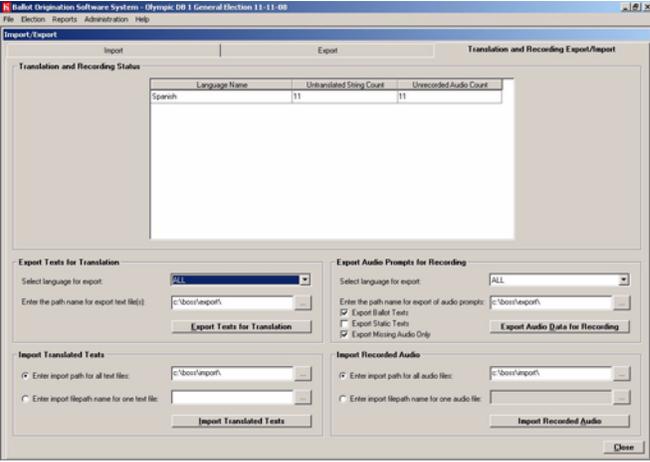
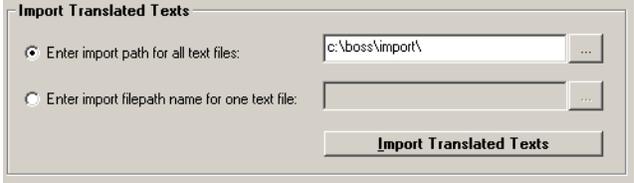
<b>Steps:</b>	<b>Details:</b>																																																																																																																																							
<p>19. Confirm import of corrected data.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p style="font-size: x-small; margin: 0;">Current Candidates records</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Race ID</th> <th>Candidate ID</th> <th>Sequence Number</th> <th>Party Code</th> <th>Candidate Name</th> </tr> </thead> <tbody> <tr><td>7</td><td>1</td><td>1</td><td>2</td><td>Babe Didrikson</td></tr> <tr><td>7</td><td>2</td><td>2</td><td>4</td><td>Mark Spitz</td></tr> <tr><td>8</td><td>1</td><td>1</td><td>2</td><td>Bonnie Blair</td></tr> <tr><td>8</td><td>2</td><td>2</td><td>3</td><td>Bruce Jenner</td></tr> <tr><td>9</td><td>1</td><td>1</td><td>3</td><td>Carl Lewis</td></tr> <tr><td>9</td><td>2</td><td>2</td><td>2</td><td>Scott Hamilton</td></tr> <tr><td>11</td><td>1</td><td>1</td><td>1</td><td>Mary Lou Retton</td></tr> <tr><td>11</td><td>2</td><td>2</td><td>2</td><td>Johnny Weissmuller</td></tr> <tr><td>11</td><td>3</td><td>3</td><td>3</td><td>Wilma Rudolph</td></tr> <tr><td>15</td><td>1</td><td>1</td><td>1</td><td>Greg Louganis</td></tr> <tr><td>15</td><td>2</td><td>2</td><td>4</td><td>Peggy Fleming</td></tr> <tr><td>15</td><td>3</td><td>3</td><td>4</td><td>Dorothy Hamill</td></tr> <tr><td>16</td><td>1</td><td>1</td><td>2</td><td>Jesse Owens</td></tr> <tr><td>16</td><td>2</td><td>2</td><td>4</td><td>Jim Thorpe</td></tr> <tr><td>13</td><td>1</td><td>1</td><td>1</td><td>For [YES]</td></tr> <tr><td>13</td><td>2</td><td>2</td><td>1</td><td>Against [NO]</td></tr> <tr><td>17</td><td>1</td><td>1</td><td>1</td><td>Don Jansen</td></tr> <tr><td>17</td><td>2</td><td>2</td><td>3</td><td>Jackie Joyner Kersee</td></tr> <tr><td>17</td><td>3</td><td>3</td><td>1</td><td>Randy Snow</td></tr> <tr><td>19</td><td>1</td><td>1</td><td>4</td><td>Bill Toomey</td></tr> <tr><td>19</td><td>2</td><td>2</td><td>5</td><td>Frank Shorter</td></tr> <tr><td>19</td><td>3</td><td>3</td><td>1</td><td>Don Schollander</td></tr> <tr><td>20</td><td>1</td><td>1</td><td>2</td><td>Blue</td></tr> <tr><td>20</td><td>2</td><td>2</td><td>3</td><td>Red</td></tr> <tr><td>20</td><td>3</td><td>3</td><td>4</td><td>Yellow</td></tr> <tr><td>20</td><td>4</td><td>4</td><td>5</td><td>Orange</td></tr> </tbody> </table> <div style="border: 1px solid gray; padding: 2px; margin: 5px 0; font-size: x-small;"> <p style="text-align: center; font-weight: bold; border: 1px solid black; display: inline-block; padding: 2px;">Record Totals</p> <p style="text-align: center; margin: 2px 0;">Valid Records: 26 Invalid Records: 0</p> <p style="text-align: center; margin: 2px 0;"><input type="button" value="OK"/></p> </div> <p style="font-size: x-small; margin-top: 5px;">Total Records: 26 <span style="float: right;">Valid Records: 26 Invalid Records: 0</span></p> </div>	Race ID	Candidate ID	Sequence Number	Party Code	Candidate Name	7	1	1	2	Babe Didrikson	7	2	2	4	Mark Spitz	8	1	1	2	Bonnie Blair	8	2	2	3	Bruce Jenner	9	1	1	3	Carl Lewis	9	2	2	2	Scott Hamilton	11	1	1	1	Mary Lou Retton	11	2	2	2	Johnny Weissmuller	11	3	3	3	Wilma Rudolph	15	1	1	1	Greg Louganis	15	2	2	4	Peggy Fleming	15	3	3	4	Dorothy Hamill	16	1	1	2	Jesse Owens	16	2	2	4	Jim Thorpe	13	1	1	1	For [YES]	13	2	2	1	Against [NO]	17	1	1	1	Don Jansen	17	2	2	3	Jackie Joyner Kersee	17	3	3	1	Randy Snow	19	1	1	4	Bill Toomey	19	2	2	5	Frank Shorter	19	3	3	1	Don Schollander	20	1	1	2	Blue	20	2	2	3	Red	20	3	3	4	Yellow	20	4	4	5	Orange	<p>Read and respond to prompts as the data import process continues.</p>
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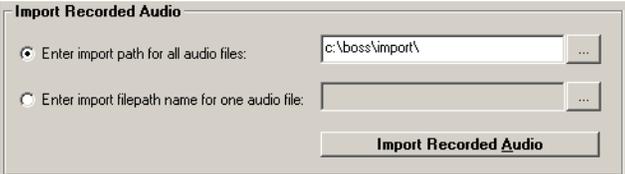
<b>Steps:</b>	<b>Details:</b>
<p>20. Complete ballot data imports.</p> 	<p>Read and respond to prompts until the data import process is completed.</p>
<p>21. Select languages for the ballot, if applicable.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Jurisdiction</b> window and click the <b>Select Languages</b> button on the <b>Jurisdiction</b> tab.</li> <li><input type="checkbox"/> Select checkboxes to create ballots in languages other than English.</li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Name in Every Language</b> checkbox in order to use only the English version of candidate names, and to withhold this data from exports for translation (i.e., no transliteration).</li> <li><input type="checkbox"/> Select the <b>Reuse English Candidate Details in Every Language</b> checkbox in order to use only the English version of candidate details.</li> <li><input type="checkbox"/> This data is not included in import files.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>
<p>22. Complete ballot instructions, if necessary.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>Ballot Instruction Texts</b> button.</li> <li><input type="checkbox"/> Ballot instructions include: <ul style="list-style-type: none"> <li>• eSlate instructions to appear at the top of the DRE ballot.</li> <li>• eSlate audio instructions associated with the text for the top of the DRE ballot.</li> <li>• Ballot Now instructions to appear at the top of the Ballot Now and eScan paper ballots.</li> </ul> </li> <li><input type="checkbox"/> You can copy ballot instructions from a .txt file and paste them into BOSS fields. Use an ASCII font such as Arial or Times New Roman. Do <i>not</i> use Unicode fonts.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

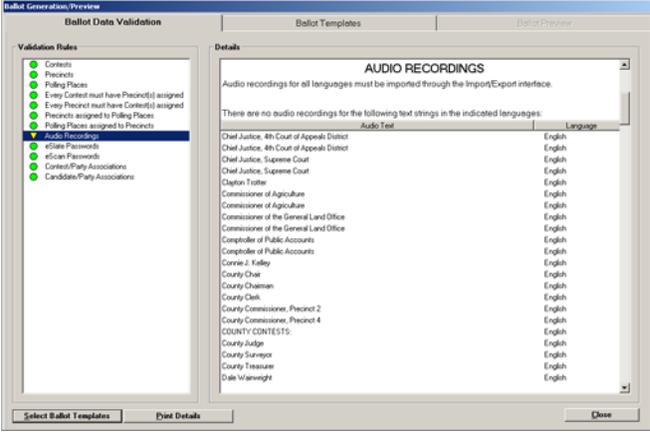
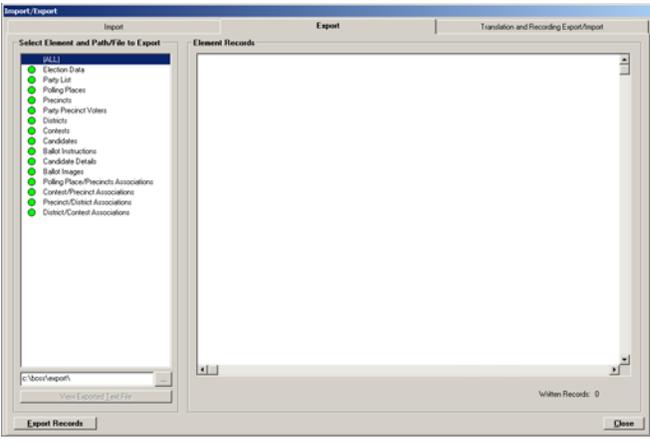
Steps:	Details:
<p>23. Define eSlate options.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Click the <b>eSlate Options</b> button.</li> <li><input type="checkbox"/> Define Election Day and Early Voting close and suspend times. (Optional) <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the Judge's Booth Controller (JBC) operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Early Voting suspend times should reflect the latest possible site suspend time.</li> <li><input type="checkbox"/> Define the number of minutes the Access Code will be active after printing. (Required) <ul style="list-style-type: none"> <li>• 30 minutes is the default setting.</li> </ul> </li> <li><input type="checkbox"/> Select the <b>Retrievable Early Voting Ballots</b> checkbox in accordance with applicable election codes. <ul style="list-style-type: none"> <li>• This associates a Ballot Code with all early voting ballots, making these ballots available for exclusion from tabulation.</li> <li>• This data is not included in import files.</li> </ul> </li> <li><input type="checkbox"/> Select a Summary/Verification font size.</li> <li><input type="checkbox"/> Select the <b>Allow Tally</b> and <b>Allow Write-In Report Print</b> checkboxes in order to allow the JBC operator to print tabulation and write-in reports after closing polls on Election Day. The <b>Allow Tally</b> box is checked by default.</li> <li><input type="checkbox"/> Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the <b>VBO Required</b> option in accordance with applicable election codes.</li> <li><input type="checkbox"/> Select the number of times a ballot printout can be rejected in the <b>VBO Ballot Rejection Limit</b> field. The printout can be rejected a maximum of five times.</li> <li><input type="checkbox"/> Select the <b>Print Ballot Key</b> option in accordance with applicable election codes. The box is checked by default.</li> <li><input type="checkbox"/> Enter eSlate Passwords. (Required) <ul style="list-style-type: none"> <li>• eSlate passwords must be uppercase and/or numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li> Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li><input type="checkbox"/> Click <b>OK</b> to save data and close the window.</li> </ul>

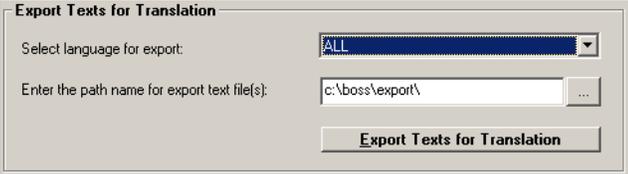
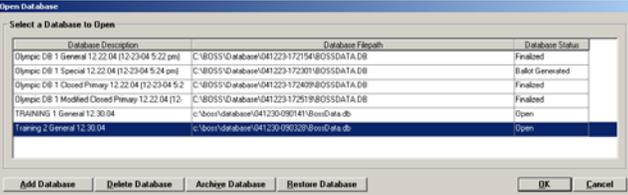
Steps:	Details:
<p>24. Define eScan options, if applicable.</p> 	<ul style="list-style-type: none"> <li>❑ Click the <b>eScan Options</b> button.</li> <li>❑ Define Election Day and Early Voting close and suspend times. (Optional) <ul style="list-style-type: none"> <li>• Use 24-hour clock settings.</li> <li>• This option gives the eScan operator a warning if s/he attempts to close or suspend the polls early, but it does not prevent such action.</li> <li>• This data is not included in import files.</li> </ul> </li> <li>⚠ Early Voting suspend times should reflect the latest possible site suspend time.</li> <li>❑ Enter eScan Passwords. (Required) <ul style="list-style-type: none"> <li>• eScan passwords must be numeric, six (6) characters.</li> <li>• This data is not included in import files.</li> </ul> </li> <li>⚠ Document passwords in a secure location and share with support and poll worker resources as needed. Passwords are not viewable via BOSS reports or data export.</li> <li>❑ Select the <b>Allow Tally Report Print</b> checkbox to print the eScan tally tape.</li> <li>❑ Select the <b>Combine Split Precincts for Report</b> and <b>Include Provisional Ballots in Vote Totals</b> checkboxes in accordance with applicable election codes.</li> <li>❑ Select Ballot Processing permissions.</li> <li>⚠ Review ballot processing permission selections with elections officials. These settings determine who is allowed override permissions on the eScan device.</li> <li>❑ <b>See:</b> “Planning for eScan Use” on page 21.</li> <li>❑ Click <b>OK</b> to save data and close the window.</li> </ul>

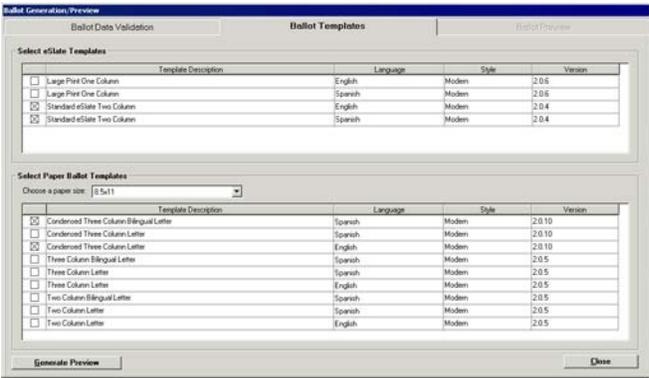
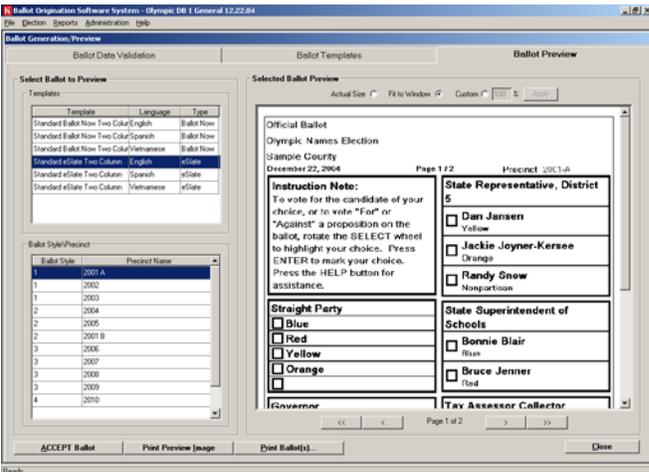
<b>Steps:</b>	<b>Details:</b>
<p>25. Select contest position force settings.</p> 	<p><input type="checkbox"/> Go to the <b>Contest Details</b> window for each contest requiring a position force.</p> <ul style="list-style-type: none"> <li>• This setting is usually not made until ballots have been previewed.</li> <li>• The selected contest will be the first displayed in the forced position.</li> <li>• eSlate and Ballot Now contest positions are forced separately.</li> </ul> <p><input type="checkbox"/> This data is not included in import files.</p> <p><b>Note:</b> Ballot Now contest position forces apply to all paper ballots (eScan and Ballot Now).</p>
<p>26. Proofread the available ballot reports, and make corrections if necessary.</p> 	<p><input type="checkbox"/> Before generating, go to the <b>Reports</b> menu and click the following menu items:</p> <ul style="list-style-type: none"> <li>• <b>Active Contests</b> to view the “Active Contests Options List” report</li> <li>• <b>Contest List</b> to view the “Contest List with Details” report</li> <li>• <b>District Reports, Precinct Assignments</b> to view the “Assigned Precinct Report”.</li> </ul> <p><b>Note:</b> “Ballot Content Proof” and ballot style reports are not available until after generating and accepting the ballot.</p>
<p>27. (Optional) Prepare for ballot translation by proofreading the existing ballots.</p>	<p><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>. Click the <b>Ballot Templates</b> tab, choose one or more templates, and click the <b>Generate Preview</b> button. On the <b>Ballot Preview</b> tab, proofread each ballot style and click <b>Reject</b> when exiting the window.</p>
<p>28. Create four folders on the PC Desktop for data import and export.</p>	<p><input type="checkbox"/> Hart recommends that you give the folders the following names:</p> <ul style="list-style-type: none"> <li>• Export Text</li> <li>• Import Text</li> <li>• Export Audio</li> <li>• Import Audio</li> </ul>

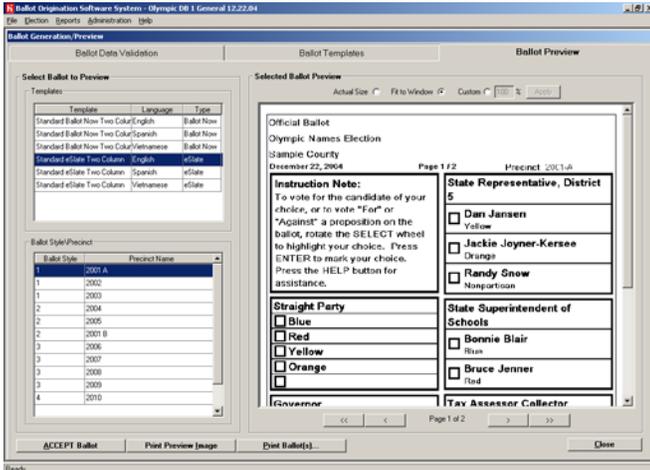
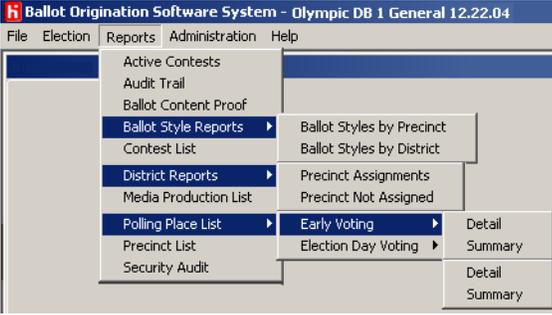
<b>Steps:</b>	<b>Details:</b>
<p>29. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 34.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu, click <b>Import/Export</b>, and then click the <b>Translation and Recording Export/Import</b> tab.</li> <li><input type="checkbox"/> Navigate to the Export Text folder and click the <b>Export Texts for Translation</b> button.</li> </ul> <p><b>See:</b> The <i>BOSS Operations Manual</i> for detailed information about foreign language import/export.</p>
<p>30. Move the contents of the Export Text folder into the Jobs folder.</p>	<p><b>Note:</b> You must move files for translation into the Jobs folder in order for TRANS to recognize them.</p>
<p>31. Use TRANS to translate text for multi-language ballots.</p>	<p><b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.</p>
<p>32. Move the text files (.xlf) from the Jobs folder to the Import Text folder.</p>	<p><b>Note:</b> You must move the translated files from the Jobs folder in order to use them in BOSS.</p>
<p>33. Import translated text for multi-language ballots.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Import Text folder and click the <b>Import Translated Texts</b> button.</li> </ul>

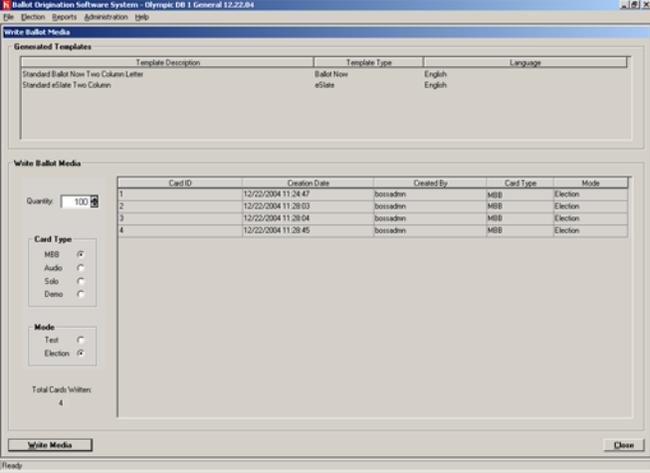
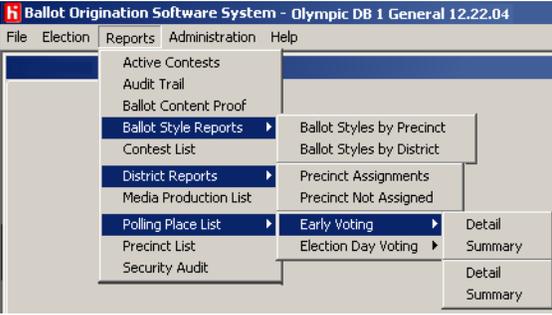
<b>Steps:</b>	<b>Details:</b>
<p>34. Export English text for recording in TRANS.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Export/Import</b> tab of the <b>Import/Export</b> window, navigate to Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</li> <li><input type="checkbox"/> English audio prompts can be exported, recorded, and imported at any time after completing data entry and before generating the ballot.</li> <li><input type="checkbox"/> English audio can be recorded while foreign language text is being translated.</li> </ul> <p><b>See:</b> "Recording Audio" on page 19.</p>
<p>35. Export audio prompts for multi-language audio recording in TRANS, if applicable.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window, navigate to the Export Audio folder and click the <b>Export Audio Data for Recording</b> button.</li> </ul> <p><b>See:</b> "Translating Foreign Language Ballot Text" on page 18.</p>
<p>36. Move the contents of the Export Audio folder into the Jobs folder.</p>	<p><b>Note:</b> You must move files for recording into the Jobs folder in order for TRANS to recognize them.</p>
<p>37. Use TRANS to record English and, if applicable, multi-language audio.</p>	<p><b>See:</b> The <i>TRANS User Guide</i> for detailed information about foreign language translation and recording.</p>
<p>38. Move the recorded audio files (.xml and .wav) to the Import Audio folder.</p>	<p><b>Note:</b> You must move the recorded files from the Jobs folder in order to use them in BOSS.</p>
<p>39. Import recorded audio files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> On the <b>Translation and Recording Import/Export</b> tab of the <b>Import/Export</b> window:             <ul style="list-style-type: none"> <li>• Click the "Enter import path for all audio files" radio button to import multiple audio files for a multi-language ballot.</li> <li>• Click the "Enter import filepath name for one audio file" radio button to import one audio file for an English-only ballot.</li> </ul> </li> <li><input type="checkbox"/> Navigate to the Audio Import folder and click the <b>Import Recorded Audio</b> button.</li> </ul>

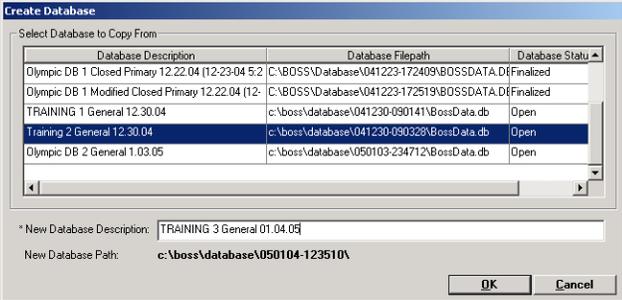
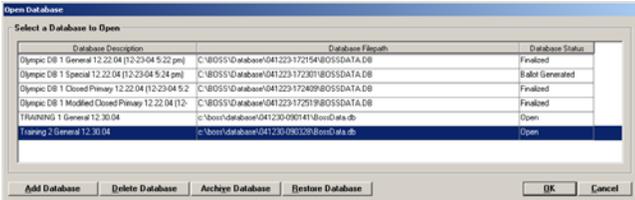
Steps:	Details:
<p>40. Verify that the ballot is complete.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>.</li> <li><input type="checkbox"/> View the <b>Ballot Data Validation</b> tab to verify that the ballot is complete. <ul style="list-style-type: none"> <li>• A green circle indicates that the information is complete.</li> <li>• A yellow triangle indicates that information is incomplete, but you can still generate the ballot.</li> <li>• A red square indicates that the information is incomplete and you cannot generate the ballot until you supply the missing information.</li> </ul> </li> </ul>
<p>41. As a risk-reduction measure, back up BOSS data and the database.</p> <p>41.1 Export all BOSS data files.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, BOSS data files).</li> <li><input type="checkbox"/> Go to the <b>Election Menu</b>, click <b>Import/Export</b>, and then click the <b>Export</b> tab. <ul style="list-style-type: none"> <li>• Highlight <b>(ALL)</b> in the <b>Select Element and Path/File to Export</b> panel.</li> <li>• Click the  button and navigate to the folder you created.</li> <li>• Click the  button and respond to the dialog boxes that appear.</li> <li>• Save export files to CD.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul> <p><b>Note:</b> Force data is not exported.</p>

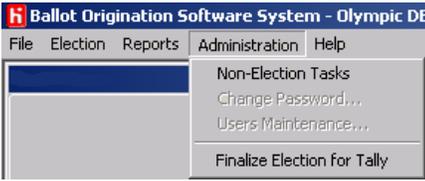
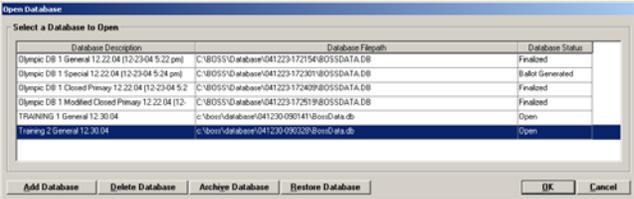
<b>Steps:</b>	<b>Details:</b>
<p>41.2 Export all translated text and recorded audio.</p>  	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, translated text and audio).</li> <li><input type="checkbox"/> After completing translations and audio, export ALL foreign language text and ALL audio from the <b>Translation and Recording Export/Import</b> tab. <ul style="list-style-type: none"> <li>• Navigate to the folder you created and click the  button.</li> <li> Deselect the <input type="checkbox"/> <b>Export Missing Audio Only</b> checkbox.</li> <li>• Navigate to the target export location and click the  button.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul>
<p>41.3 Archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the  button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul> <p><b>See:</b> "Appendix D: Backing Up Election Databases" on page 113.</p>

Steps:	Details:
<p>42. Select templates and preview ballots.</p> 	<p><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Ballot Formats</b>.</p> <ul style="list-style-type: none"> <li>On the <b>Ballot Data Validation</b> tab, verify that the ballot is complete.</li> <li>Click the <b>Ballot Templates</b> tab and choose templates and paper size. <ul style="list-style-type: none"> <li>Select paper ballot (Ballot Now/eScan) and eSlate DRE ballots in all formats and languages needed.</li> <li>If images have been added to the ballots, choose image-enabled templates. To obtain these templates, contact Hart InterCivic.</li> <li>Take written note of template(s) selected.</li> </ul> </li> </ul> <p> If choosing paper ballot templates for use with the eScan, you must create passwords in the <b>eScan Options</b> window. Although eScan cannot be operated without passwords, it is possible to generate the ballot in BOSS without defining eScan passwords.</p> <p> The eScan device does <i>not</i> accept 11x17 ballots.</p> <ul style="list-style-type: none"> <li>Click the  button.</li> </ul>
<p>43. Proofread the ballot on the <b>Ballot Preview</b> tab.</p> 	<p><input type="checkbox"/> Print ballot previews in order to proofread all formats, ballot styles, and languages, before accepting ballot generation.</p> <p><input type="checkbox"/> Determine the maximum length of any ballot, and consider revising format to reduce length (e.g., to keep paper ballots to one sheet).</p> <p><b>Tip(s):</b> Right-click the ballot image and choose <b>Save Picture As...</b> in order to save the ballot page as a "*.bmp" graphic file (for use in sample ballot flyers, for example).</p>

Steps:	Details:
<p>44. Generate the ballot, or go back to make corrections.</p> 	<p> Once you accept the ballot, you cannot enter new data in this BOSS database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> To accept ballot generation, click the  button in the <b>Ballot Preview</b> tab.             <ul style="list-style-type: none"> <li>• Confirm ballot acceptance in the dialog box that appears.</li> </ul> </li> <li><input type="checkbox"/> To reject ballot generation, close the <b>Ballot Generation /Preview</b> window and click <b>Reject</b>.</li> </ul>
<p>45. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Before accepting ballot generation, the BOSS application will prompt you to enter the eCM PIN.</li> </ul>  <ul style="list-style-type: none"> <li><input type="checkbox"/> The eCM can be removed from the USB port after the ballot has been accepted.</li> <li><input type="checkbox"/> Store the eCM in a secure location.</li> </ul>
<p>46. Print Ballot Style reports.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Reports</b> menu and click the following menu items:             <ul style="list-style-type: none"> <li>• <b>Ballot Content Proof</b> to view and print a report detailing precincts, contests, and registered voters per ballot style</li> <li>• <b>Ballot Style by District</b> to view and print a report detailing all ballot styles and associated districts and precincts</li> <li>• <b>Ballot Style by Precinct</b> to view and print a report detailing all ballot styles and assigned precincts (for election organized by precinct-contest associations)</li> </ul> </li> </ul>

Steps:	Details:
<p>47. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.</p> 	<p><input type="checkbox"/> Go to the <b>Election</b> menu and click <b>Write Ballot Media</b>.</p> <p> Calculate the number of cards needed for the election, including recovery and SERVO MBBs.</p> <p><b>See:</b></p> <p>“Planning Ballot Media Quantities” on page 24.</p> <ul style="list-style-type: none"> <li>• Select the desired <b>Quantity</b>, <b>Card Type</b> and <b>Mode</b> options.</li> <li>• Click the  button and follow the prompts to create media.</li> </ul> <p><b>Tip(s):</b></p> <p>“Planning for eScan Use” on page 21.</p> <p>“Planning for Demonstration eSlate Use” on page 23.</p>
<p>48. Print reports.</p> 	<p><input type="checkbox"/> Go to the <b>Reports</b> menu and click, at minimum, the following:</p> <ul style="list-style-type: none"> <li>• <b>Audit Trail</b> to view and print a report giving a record of operator actions</li> <li>• <b>Media Production List</b> to view and print a report documenting all media produced by sequential serial number, card type, time created, and card mode.</li> <li>• <b>Polling Place List/Early Voting/Summary</b> and <b>Polling Place List/Election Day/Summary</b> to view and print reports necessary for warehouse/support personnel or JBC operators to assign polling place IDs to JBCs.</li> </ul> <p> If the eScan is to be used in Absentee mode, obtain the Absentee polling place ID by viewing the <b>Polling Places</b> tab in the <b>Jurisdiction</b> window after generating with paper ballot template(s).</p>

<b>Steps:</b>	<b>Details:</b>
<p>49. Verify that the MBBs and Audio cards contain the required information in the desired format.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> View/listen to test mode cards on the JBC and DAU eSlate, eScan, and/or with Ballot Now.</li> <li><input type="checkbox"/> Conduct a Logic and Accuracy Test (L&amp;A).</li> </ul> <p><b>See:</b> The <i>Tally Training Manual</i> for instructions on conducting an L&amp;A with the system.</p>
<p>50. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.</p> 	<p><b>See:</b> “Database Management” on page 9. “Appendix F: Copying Forward a BOSS Database” on page 117.</p>
<p>51. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create an election folder with the date, time, and contents (in this case, the archived BOSS database).</li> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>.             <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the <b>Archive Database</b> button.</li> <li>• Navigate to the folder you created.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul> <p><b>See:</b> “Appendix D: Backing Up Election Databases” on page 113.</p>

Steps:	Details:
<p>52. Finalize the BOSS database for Tally.</p> 	<p> Once the BOSS database is finalized, media can no longer be created from this database.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>Administration</b> menu and click <b>Finalize Election for Tally</b>. <ul style="list-style-type: none"> <li>• Verify that all necessary media has been created.</li> </ul> </li> </ul>
<p>53. As a risk-reduction measure, archive the database and save to CD.</p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Go to the <b>File</b> menu and click <b>Open Database</b>. <ul style="list-style-type: none"> <li>• Highlight the target database.</li> <li>• Click the  button.</li> <li>• Follow prompts to navigate to a specifically named and time-stamped folder.</li> <li>• Click <b>Save</b>.</li> <li>• Burn this folder to CD.</li> <li>• Repeat this process after database changes.</li> </ul> </li> </ul> <p><b>See:</b> "Appendix D: Backing Up Election Databases" on page 113.</p>
<p>54. Exit BOSS.</p> 	

**Notes:**

## Appendix A: Glossary

<b>Term:</b>	<b>Definition:</b>
<b>Abandoned Ballot</b>	A ballot that the voter did not cast into the ballot box before leaving the polling place. On an eSlate, this is a ballot that the voter did not cast by pressing the CAST BALLOT button and the voter is not present. Local election rules dictate dispensation of an abandoned ballot.
<b>Absentee Ballot</b>	An official ballot issued to a voter who will be "absent" from the polling place on Election Day.
<b>Absentee Voting</b>	A voting method by which people can cast their ballots without going to the polling place on Election Day. Early Voting is sometimes referred to as "Absentee-in-person," and by-mail voting is sometimes referred to as "Absentee-by-mail."
<b>Access Code</b>	The four-digit number given to each voter that indicates to the eSlate system which precinct and ballot style to display to the voter on the eSlate voting unit. The Access Code is printed on a slip of paper printed on the JBC.
<b>Access Code Status Report</b>	A JBC report that is printed on-demand. It lists the number of Access Codes issued, voted, expired, canceled, and active.
<b>Access Code Summary</b>	A JBC report that is printed with the "Tally" report when polls are closed on Election Day. It lists the number of Access Codes issued, voted, expired, and canceled.
<b>Americans with Disabilities Act (ADA)</b>	A 1990 federal act (Public Law 101-336) that established comprehensive standards for the treatment of persons with disabilities in employment, public accommodations, and other programs, including those operated by state and local governments.
<b>ATA</b>	Advanced Technology Attachment; a disk drive implementation that integrates the controller on the disk drive itself.
<b>Audio Card</b>	Used in a DAU eSlate, the PC card that contains the audio prompt recordings for an election. Formerly also called a "DAU Card".
<b>Audit Log, Audit Trail, Audit Report</b>	Recorded information that allows elections officials to view the steps that occurred on the equipment included in an election to verify or reconstruct the steps followed without compromising ballot or voter secrecy.
<b>Authentication</b>	The verification of the identity of a person or process. In a communication system, authentication verifies that messages really come from their stated source, like the signature on a (paper) letter.
<b>Ballot Box, eScan</b>	A secure receptacle for the eScan that collects scanned paper ballots and that has an emergency compartment for temporary storage of voted ballots in case the eScan is disabled.

<b>Term:</b>	<b>Definition:</b>
<b>Ballot Box Security Seal</b>	The seal attached to the MBB door on a JBC or eScan to secure the installed MBB. Also, the seal attached to the lid/receptacle junction of the eScan ballot box.
<b>Ballot Code</b>	A unique number assigned to either a provisional ballot or an Early Voting retrievable ballot to enable swift retrieval of that ballot from the Hart Voting System Tally application by election officials.
<b>Ballot Format</b>	The arrangement of the ballot created in BOSS. Ballots may be formatted for the eSlate or for Ballot Now.
<b>Ballot Instructions</b>	Instructional text that appears at the top of the ballot. There are two separate types of Ballot Instruction text: (1) eSlate and (2) Ballot Now. There is also separate audio instruction associated with the eSlate ballot instruction.
<b>Ballot Key</b>	The unique alphanumeric identifier associated with each VBO cast vote record. This identifier aids in reconciling votes in case of a manual recount.
<b>Ballot Now™</b>	The Hart Voting System software application that prints paper ballots on demand and then digitally images the voted ballots to save for delivery to Tally.
<b>Ballot Now Image Processor</b>	Ballot Now Image Processor (BNIP) is an application that runs in parallel with Ballot Now. After scanning ballots, BNIP processes ballot images.
<b>Ballot Origination Software System™ (BOSS)</b>	The software application used to build an election database and create ballot styles. BOSS is used to write the MBB, Audio, Solo, and Demo cards used in Hart Voting System equipment.
<b>Ballot Style</b>	<p>One of any number of specific ballot configurations issued to the appropriate precinct. At minimum, ballot styles differ from one another in content. They may also differ in size of type, in language used, or in method of presentation (e.g., visual or audio).</p> <p>A ballot with a unique collection of contests to be used in the election. Every precinct's (or split precinct's) ballot is linked to one ballot style and there may be several precincts with the same ballot style. The ballot style information is carried on the MBB. A ballot style barcode is printed on the ballot.</p>
<b>Ballot Text</b>	Instructional text embedded in the ballot. Ballot Text is often used to identify a section of the ballot.
<b>Bar Code</b>	A printed horizontal strip of vertical bars of varying widths, groups of which represent decimal digits. In the Hart Voting System, bar codes are required in order for paper ballots to be correctly scanned. Ballot Now uses bar codes to represent a ballot page's election identifier (ID), party ID, language ID, precinct ID, sheet ID, serial number (if applied), page number, ballot type, and duplex code.
<b>Card Device</b>	The PC-card drive for reading and writing Hart Voting System data and audio cards.
<b>Cast Vote Record (CVR)</b>	An anonymous record of the contest options that a voter selected on his/her cast ballot. In the Hart Voting System, Cast Vote Records are stored in electronic format. One Cast Vote Record is equivalent to one ballot.

<b>Term:</b>	<b>Definition:</b>
<b>Challenged Ballot</b>	Terminology and rules for “challenged ballots” or “challenged voters” vary by state. In general, a challenged ballot results when a voter’s right to cast a ballot in a certain jurisdiction is challenged for various procedural reasons. If the challenge stands, the voter may, in most cases, vote provisionally.
<b>Contest</b>	A choice to be made on the ballot; a race. Contest types include offices, issues, referendums, propositions and questions.
<b>Credentials</b>	Authentication information that enables access to operations in the system or associated databases. Credentials typically include user IDs and passwords.
<b>Cumulative (Access Code) Summary</b>	A summary on the JBC “Suspend Report” or “Daily Detail Report” that lists the Access Codes issued, voted, expired, and canceled for the entire session of Early Voting.
<b>Cumulative Voting</b>	The votes for each candidate in an office contest are replicated as many times as the number of valid choices.
<b>Cyclic Redundancy Check</b>	A continuous test of each transfer of data within a system to ensure that the data received at the end of the transfer is the same as the data originated by the source.
<b>(Daily) Detail Report</b>	A report that the JBC or eScan prints when the polls at an Early Voting site are suspended. This report identifies the number of ballots cast per precinct.
<b>Daily (Access Code) Summary</b>	A summary on the JBC “Suspend Report” and “Daily Detail Report” that lists the Access Codes issued, voted, expired, and canceled for only the current day of Early Voting.
<b>Daisy Chain</b>	Items connected in a series. The eSlates are daisy chained, one to another, with one plugging into the JBC.
<b>Damaged Contest</b>	In Ballot Now, a mark requiring resolution because the option box has been erased or partially erased (damaged). A damaged contest may be resolved for voter intent or confirmed. If confirmed, a damaged contest will register as no choice for that selection. This may result in fewer selections than allowed for that contest; i.e., an undervote.
<b>Database</b>	A storage point for information (data).
<b>Demo Card</b>	An ATA memory card that contains both ballot and audio data for use in a Demonstration eSlate.
<b>Demonstration eSlate (Demo)</b>	An eSlate set up for voter education purposes, to allow voters to practice using the eSlate buttons and interface (including headphones and adaptive devices, if desired) on a functioning unit that cannot record votes. A Demonstration eSlate does not require a JBC in order to display ballots because it uses a special ATA memory card that contains both ballot and audio data. Demonstration eSlates are also known as “demo units.”
<b>Digital Signature</b>	An encrypted digital code appended to data, making it possible to require authentication before allowing access to that data.
<b>Direct Record Electronic (DRE)</b>	The election industry term for an electronic machine at which a voter can view, vote, and cast a ballot.

<b>Term:</b>	<b>Definition:</b>
<b>Disabled Access Unit™ (DAU)</b>	An eSlate that includes accessory components so that disabled persons can vote independently and privately. DAU eSlates include a module that accepts audio cards so that voters can listen to the ballot with headphones. DAU eSlates also have jacks for tactile input switches or “sip and puff” devices so that voters with limited mobility have alternatives to the SELECT wheel.
<b>District</b>	A selection of precincts and/or split precincts that determine a voting group.
<b>Duplicate Ballot</b>	During scanning, if serial numbers were printed on ballots, Ballot Now will search the database for an identical ballot serial number every time a ballot is scanned, and disallow the ballot if it is a duplicate.
<b>Duplex</b>	Two-sided. In Ballot Now ballots are printed and scanned on both sides of the ballot sheet. The eScan scans both sides of the ballot sheet.
<b>Early Voting</b>	In the Hart Voting System, the term for votes cast in-person prior to Election Day. Nomenclature for “Early Voting” varies from state to state in the U.S.A. (Absentee In-Person, Absentee Walk-In, etc.). Totals are not available from the polling place during the Early Voting period (i.e., no “Tally” report available).
<b>Early Voting Retrievable Ballot</b>	Ballots cast on the eSlate at Early Voting polling places that can be retrieved by Ballot Code from the Tally tabulation application by election officials. The Ballot Code is printed on the Retrieval Stub for an Early Voting retrievable ballot. A checkbox in BOSS must be selected in order to identify eSlate ballots cast during Early Voting as retrievable.
<b>eCM</b>	eSlate Cryptographic Module; a highly secure peripheral USB device provided by Hart InterCivic. The eCM contains the signing key, the key ID, and the eCM PIN required to perform certain functions in the Hart Voting System applications.
<b>eCM Manager</b>	The Hart InterCivic software application that manages approved security functions for use in the Hart Voting System. eCM Manager is used to create a signing key, and then write the signing key, key ID and eCM PIN to the eSlate Cryptographic Module (eCM).
<b>eCM PIN</b>	eSlate Cryptographic Module Personal Identification Number; a password selected by the jurisdiction system administrator before any signing keys are written. This PIN is used to access functions requiring the eCM.
<b>EDX</b>	Election Definition XML (eXtensible markup language); a format for election information data exchange.
<b>Election Assistance Commission (EAC)</b>	An independent federal commission that serves as a national clearinghouse and resource for the compilation of information and review of procedures with respect to the administration of federal elections.
<b>Election ID</b>	An election identification code that is unique for every election. The election ID is used internally by the software applications.

<b>Term:</b>	<b>Definition:</b>
<b>Election Identification Report</b>	A report that the JBC or eScan prints when the polling place ID is selected. The report contains the current date and time, jurisdiction name, election name, election date, polling place, and number of precincts enabled for the polling place. For Election Day, shows the name of all precincts enabled for the polling place.
<b>Election Management System (EMS)</b>	A set of processing functions and databases within a Voting System that define, develop and maintain election databases; perform election definition and setup functions; format ballots; count votes; consolidate and report results; and maintain audit trails.
<b>Encryption</b>	Any procedure used in cryptography to convert plaintext into ciphertext (encrypted message) in order to prevent any but the intended recipient from reading that data.
<b>eScan™</b>	Hart InterCivic's precinct paper ballot scanning device. A paper ballot printed from Ballot Now can be scanned and recorded on this device.
<b>eSlate®</b>	Hart InterCivic's direct record electronic (DRE) voting device. An electronic ballot can be viewed, voted, and recorded on this device.
<b>Event</b>	In SERVO, a specific backup of a set of devices in SERVO. An Election MBB is required to create an Event. Each Event relates directly to either an Election or a Test Election.
<b>FEC</b>	Federal Election Commission, an independent federal regulatory agency. Voting systems regulation formerly assigned to this body have been transferred to the Elections Assistance Commission (EAC).
<b>Finalized</b>	In BOSS, the database status that prevents further data modification and writing of MBBs to make it available to Tally. In Tally, the database status that prevents further reading of votes from MBBs into Tally.
<b>FireWire</b>	A personal computer and digital video serial bus interface standard offering high-speed communications and isochronous real-time data services. FireWire (also known as i.Link or IEEE 1394) can be considered a successor technology to the SCSI Parallel Interface. FireWire is capable of transfer speeds of up to 400 megabits per second.
<b>Firmware</b>	Computer programs (software) stored in read-only memory (ROM) devices embedded in the system and not capable of being altered during system operation. For purposes of applying the Standards, firmware is considered a form of software.
<b>Flash Memory</b>	Reprogrammable, read only memory that is used in PC cards or MBBs. Flash Memory does not require continuous electric power to operate. It is a system that can store more data and work faster than a traditional floppy disk.
<b>Fractional Cumulative Voting</b>	A voter selects at least one candidate in a contest that allows votes for multiple options, but selects fewer than the number of options allowed. The unvoted options that were allowable are distributed equally to the voted options.
<b>Functionality Test</b>	Testing of hardware functionality (e.g., testing to see that an eSlate button responds when pressed).

<b>Term:</b>	<b>Definition:</b>
<b>Fusion™</b>	A supplemental Hart Voting System software application used to integrate data, as from Tally and another voting system, and/or to provide custom reporting.
<b>Hart Voting System</b>	The full suite of Hart InterCivic's election software and hardware products, covering everything from ballot creation to tabulation. Includes: BOSS, Ballot Now, eScan, JBC, eSlate, Rally, Tally, utility products, and SERVO. Previously referred to as the 'eSlate Electronic Voting System.'
<b>Hash</b>	Algorithm that maps a bit string of arbitrary length to a fixed-length bit string. Approved hash functions satisfy the following properties: (a) it is computationally infeasible to find any input that maps to any prespecified output, and (b) it is computationally infeasible to find any two distinct inputs that map to the same output.
<b>HAVA</b>	The Help America Vote Act, signed into law October, 2002. HAVA intends to assist states in the administration of federal elections and establishes "minimum standards for states and units of local governments with the responsibility for the administration of federal elections."
<b>Incomplete Ballot</b>	A multi-sheet ballot being scanned in a scan batch that has its first sheet, but is missing following sheets.
<b>Infusion™</b>	A supplemental Hart Voting System software utility used to extract data, as from another voting system or voter registration system, and/or to provide ballot data formatted for import into BOSS.
<b>Initialized Report</b>	A report printed from the JBC and eScan any time the device is powered on. This report shows a timestamp, firmware version, and diagnostic test result. A self-diagnostic test is run on the system, and the result is indicated as "***PASS***" on the report.
<b>Judge's Booth Controller™ (JBC)</b>	The control unit of the eSlate system, through which a poll worker distributes electronic ballots to the eSlate and DAU eSlate.
<b>Jurisdiction</b>	A precinct or group of precincts managed by a single organization.
<b>Key GUID</b>	Key Globally Unique Identifier. A unique, system-generated value assigned to each signing key in the eCM Manager.
<b>Key ID</b>	A user-selected identification number that prompts the eCM Manager application to generate a new 128-bit encrypted signing key. Allowed values are from 1 to 99.
<b>Locked Ballot</b>	In Ballot Now, a ballot that is currently checked out in the resolve process for editing by a user.
<b>Logic and Accuracy Test (L &amp; A or LAT)</b>	In the context of an election, a test to check the accuracy of a piece of voting equipment. An LAT is accomplished by feeding test ballots for which the results are already known (i.e., a "test deck") through the ballot counting system and comparing the results with the expected results. If an error occurs (i.e., the actual test deck count does not match the expected count), then the problem is investigated and corrected, and the test is repeated.

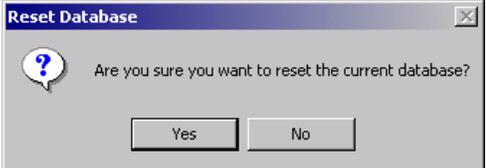
<b>Term:</b>	<b>Definition:</b>
<b>MBB, Election</b>	An MBB used to collect votes for an election. The Election MBB can only contain information from Election ballots.
<b>MBB, Test</b>	An MBB used for test purposes when validating the eSlate system before an election. The Test MBB can only contain information from Test ballots.
<b>Mobile Ballot Box™ (MBB)</b>	A PC card that holds all of the ballot information for the Hart Voting System. An MBB is placed in the JBC unit, the eScan device, and/or in the Ballot Now computer. Cast Vote Records are also stored on MBBs, which are read into Tally. Audio is not stored on an MBB.
<b>Network Configuration Report</b>	A report printed on the JBC after booths are assigned. The report contains the serial number, software version, PUB count, and PVT count for the JBC and each eSlate unit.
<b>Non-partisan Office</b>	An elected office for which candidates run independent of political party affiliation.
<b>Orphan Ballot</b>	A multi-sheet ballot being scanned in a scan batch that has missing leading sheets.
<b>Overvote</b>	The generally prohibited practice of voting for more than the allotted number of options for a given contest. On the eSlate it is not possible to overvote.
<b>Party</b>	A political party, for example Democratic or Republican.
<b>PC Card</b>	An information storage device that is about the size of a credit card. Similar to a USB memory stick. It is also called a “PCMCIA” card. In the Hart Voting System it is called a Mobile Ballot Box (MBB), an audio card, or a demo card.
<b>Persistence</b>	A property of a programming language where created objects and variables continue to exist and retain their values between runs of the program.
<b>Polling Place</b>	The area within the polling location where voters cast ballots. Often a single polling place supports several precincts.
<b>Polls Closed Report</b>	Report printed by the JBC, VBO and/or eScan when the polls are closed. This report includes a timestamp indicating the date and time printed.
<b>Polls Open Report</b>	Report printed by the JBC, VBO and/or eScan when the polls are opened. This report includes a timestamp indicating the date and time printed.
<b>Poll Worker Button</b>	A button, located on the back panel of the eScan device, used to access poll worker and administrator functions.
<b>Precinct</b>	A jurisdiction subdivision for election purposes.
<b>Precinct Voting System (PVS)</b>	A legacy term for those components of the Hart Voting System that are used for election activities at individual polling places.
<b>Provisional Ballot</b>	A ballot provided to individuals who claim they are eligible to vote but whose eligibility cannot be confirmed when they present themselves to vote. Once voted, such ballots are not included in the tabulation until after the voter’s eligibility is confirmed.

<b>Term:</b>	<b>Definition:</b>
<b>Provisional Ballot Stub</b>	A report that prints below the Access Code when a provisional ballot is requested during the “Add Voter” procedure on the JBC. This stub includes the Ballot Code used for ballot retrieval during the tabulation process. The stub must be separated from the Access Code and kept for ballot tracking purposes for this unique type of ballot.
<b>Provisional Parsing</b>	The process of selectively reporting on a provisional ballot only those contests in which a provisional voter is eligible to vote, based on his/her precinct of residence. Provisional parsing becomes necessary when the provisional voter has cast a ballot outside of his/her correct precinct, and the voted ballot style includes contests for which the voter is not eligible to vote. When the Tally software application is installed, users have the option to enable a provisional parsing interface. If enabled, once the Tally application has selectively identified (i.e., “parsed”) those contests on a provisional ballot for which voted options shall be reported, election officials can choose <i>how</i> to report results: cast votes may be associated with the original precinct in which the provisional ballot was actually cast, or they may be reassigned to the voter’s correct precinct.
<b>Provisional Voter</b>	A voter whose eligibility is yet to be determined at a given polling place. A provisional voter is allowed to vote on a “provisional ballot” under conditions set by state election law. Because the voter is “provisional”, his/her ballot must be retrievable by election officials under certain conditions that vary from state to state.
<b>PUB (Public) Count</b>	Also called the “ballot counter”. A six-digit number, shown on the JBC and eScan configuration reports and Polls Open screen, and in the Ballot Now window, that indicates how many votes have been counted, and CVRs recorded, on that machine for the current election. The public count of a device is reset to “zero” during warehouse operations between elections.
<b>PVT (Private) Count</b>	A six-digit number, shown on the JBC and eScan configuration reports and Polls Open screen, and in the Ballot Now window, that indicates how many ballots have been cast on that machine in its lifetime. CVRs are not associated with the private counter. The private counter cannot be zeroed.
<b>Rally™</b>	The Hart Voting System application that reads, stores, and transfers CVRs via local area network or modem connection to a PC running the Tally application.
<b>Replacement Ballot</b>	A ballot that is designated by the election authority to be a replacement for a spoiled ballot.
<b>Resolution</b>	The Ballot Now task of assigning the voter’s intent to votes on ballots that contain an undervoted contest, an overvoted contest, or a contest with a selected write-in. Resolution may also exclude a completely blank ballot or a damaged ballot.
<b>Sample Ballot</b>	A ballot printed as a sample of the real election ballot. Sample ballots contain a special barcode which prevents them from being included as a CVR in an MBB.
<b>Scan Batch</b>	A group of ballot sheets to be scanned. Each scan batch has certain number of sheets. Ballot Now assigns and prints a sequence number when the ballots are printed. The user can assign comments to a scan batch in the <b>Scan Ballots</b> window prior to scanning the batch of ballots.

<b>Term:</b>	<b>Definition:</b>
<b>Select Wheel</b>	The rotary wheel on the eSlate and DAU eSlate that allows a voter to navigate the ballot and highlight choices by turning the wheel.
<b>Serial Number</b>	A barcode and/or human-readable number placed on the ballot stub and/or the sheets of a ballot that uniquely identifies the ballot in order to prevent duplicate scanning of paper ballots.
<b>SERVO™</b>	The eSlate application used as a System for Election Record Verification and Operations. This application is used for polling place equipment cast vote record backup, recovery, recount, and resetting.
<b>Sheet</b>	In reference to Ballot Now paper ballots, one piece of paper printed on both sides, i.e., duplex. Ballot Now ballots can consist of no more than 9 sheets.
<b>Signing Key</b>	A true 128-bit random number used to cryptographically protect data, making it possible to require authentication before allowing access to the data. In the Hart Voting System, the signing key is written to the eCM, JBCs, eScans, and MBBs.
<b>Sip-and-Puff</b>	A voter's personal input device that connects to the DAU eSlate in the disabled access jack. This enables disabled voters with extremely limited mobility to vote with a mouth-controlled device.
<b>Split Precinct</b>	The smallest division of a precinct for election purposes.
<b>Spoiled Ballot</b>	A ballot that has been rendered invalid by a voter who is still present at the polling place, making it necessary to give the voter a new ballot. With the eSlate, a ballot is spoiled if the voter gets the wrong ballot style, the wrong language, or is not on the DAU eSlate but needs to be.
<b>SSL</b>	Secure Sockets Layer; a protocol developed by Netscape for transmitting private documents via the Internet. SSL works by using a private key to encrypt data that is transferred over the SSL connection.
<b>Straight Party Voting</b>	A voting method that presents a contest that allows selection of a single political party in order to automatically select candidates of that party in contests that allow straight party voting.
<b>Suspend Report</b>	A JBC or eScan report that automatically prints when polls are suspended in Early Voting. For the JBC, the report lists the PUB count and PVT count of the JBC and eSlate units, a Daily (Access Code) Summary, and a Cumulative (Access Code) Summary, as well as a timestamp.
<b>Tactile Input Switches</b>	Also called "dual mode switches," "jelly switches," or "buddy buttons," these red and green "paddles" enable voters with disabilities to vote without using the SELECT wheel and ENTER button on the eSlate. Voters without fine motor control may use these. The red tactile input switch allows voters to navigate through the ballot, similar to turning the SELECT wheel in a clockwise direction. The green switch is similar to pressing the ENTER button.
<b>Tally™</b>	The Hart Voting System tabulation software. After an election, the Tally software counts the votes on the MBB(s) and produces reports on those cast votes.

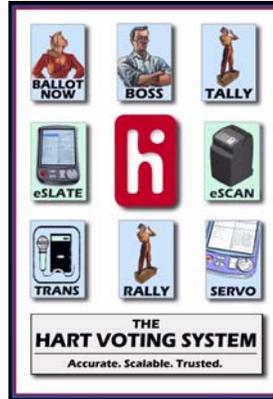
<b>Term:</b>	<b>Definition:</b>
<b>Tally Report Tape</b>	An Election Day report that may be printed on a JBC or eScan after polls are closed. It includes the date, time, precinct, a tally of votes for each contest, and an Access Code or ballot summary. BOSS includes a setting for allowing, or disallowing, this report to be printed from the JBC or eScan after close of polls on Election Day.
<b>TRANS</b>	Translation, Recording, and Audio Normalization System; an eSlate application for translating multi-language ballot text and for recording all audio (including English) to be imported into the BOSS database.
<b>Undervote</b>	The practice of voting for less than the total number of election contests listed on the ballot, or of voting for less than the number of options allotted for a given contest.
<b>UPS</b>	Uninterruptible Power Supply.
<b>USB</b>	Universal Serial Bus; an external peripheral interface standard for communication between a computer and other devices. In the Hart Voting System, an eCM connects to a USB port.
<b>VBO</b>	Verifiable Ballot Option; the Hart Voting System VVPAT (Voter-Verified Paper Audit Trail) device that can be connected to the eSlate or Demonstration eSlate inside the voting booth in order to print a paper record of each ballot cast.
<b>Voter Registration Computer</b>	An electronic poll book sometimes known as a “thin client” or “VR Computer.”
<b>VVPAT</b>	Voter-Verified Paper Audit Trail; Implemented in the Hart Voting System by the VBO (Verifiable Ballot Option) device.
<b>WAV file</b>	A file format (.wav) used for storing digital audio. TRANS audio is stored in .wav file format.
<b>Write-in</b>	A name of a candidate entered by the voter in order to vote for a candidate that is not listed on the ballot.
<b>Write-in, certified</b>	A candidate that has been certified by the election authority as being a valid write-in candidate for the election.
<b>Write-in Voting</b>	A means to cast a vote for an individual not listed on the ballot.
<b>XLIFF</b>	XML Localization Interchange File Format. A file type (.xlf) used by BOSS and TRANS for language text translation.
<b>XML</b>	eXtensible Markup Language. A structured, extensible, text-based data definition and data exchange format. TRANS uses an .xml file as a manifest, or index, to associated audio .wav files.
<b>Zero Tape Report</b>	A JBC or eScan report that prints out when polls are opened on the first day of Early Voting and on Election Day. This report lists the timestamp, the number of precincts at the polling place, the contests and candidates on the ballot, and verifies that the number of votes for each candidate or option is zero.

## Appendix B: Information, Confirmation, Error, and Warning Messages

<i>Type of Message:</i>	<i>Explanation:</i>	<i>Example:</i>
<p><b>Information</b></p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Informs about an operation</li> <li><input type="checkbox"/> Includes an information icon</li> <li><input type="checkbox"/> Includes an <b>OK</b> button</li> </ul>	
<p><b>Confirmation</b></p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Asks user to confirm an action, particularly when the action cannot be reversed</li> <li><input type="checkbox"/> May include text from the command performed</li> <li><input type="checkbox"/> Includes a question mark icon</li> <li><input type="checkbox"/> User responds with <b>Yes</b> or <b>No</b></li> </ul>	
<p><b>Error</b></p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> First statement in error identifies the problem</li> <li><input type="checkbox"/> Second statement may inform user of required action</li> <li><input type="checkbox"/> Includes an error icon</li> <li><input type="checkbox"/> Includes an <b>OK</b> button</li> </ul>	
<p><b>Warning</b></p> 	<ul style="list-style-type: none"> <li><input type="checkbox"/> Appears when the user must double-check a command</li> <li><input type="checkbox"/> May include text from the command performed</li> <li><input type="checkbox"/> Includes a warning icon</li> <li><input type="checkbox"/> Includes an <b>OK</b> button</li> </ul>	

**Notes:**

## Appendix C: Hart Voting System Software User Tips



The following apply to ALL Hart Voting System programs.

### **Software Password, Certificate, and PIN Tips**

#### *Best Practices*

- Do not give out an administrator password, applicable either to the PC where the Hart Voting System software is housed, or to a Hart Voting System application itself.
- Change every user ID, password, certificate, eCM key ID, signing key, and PIN(s) during PC acceptance and at regular intervals and in accordance with federal, state, and local guidelines.
- The user currently logged in should stay at the computer while running the application and exit the application if s/he steps away from the PC.

#### *Avoid Using*

- Any password you have used before
- Any string of three characters repeated or reversed
- Any character repeated more than twice
- Your name or your initials
- The computer or application user ID
- The names of relatives, birthdays, phone numbers or the company name
- The number for this year, last year or next year, or the three-character abbreviations for the months
- Telephone number or car license plate numbers

#### *Do Use*

- A combination of upper and lowercase letters
- A password that is at least 6 - 12 characters long
- A new password for every user at regularly scheduled intervals (e.g., annually or quarterly)
- Random characters users will remember

#### *Tips for a Secure Password, Certificate, or PIN*

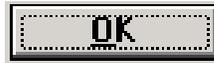
- Use the first letters of the words in a memorable phrase.
- Use a meaningless but easy-to-remember phrase.
- Insert numbers into the phrase.
- Note the password, certificate information, and/or eCM PIN, in a private and secure location.

### **Computer Security**

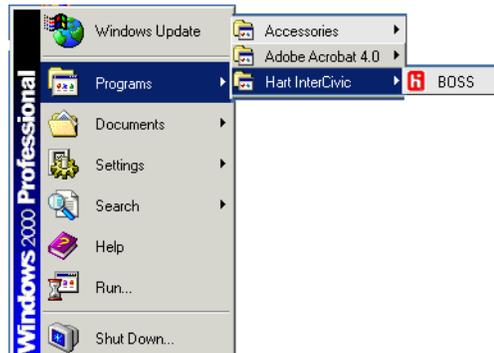
Computers running Hart InterCivic software should be kept in locked spaces with limited access. Password-protected screen savers or other similar security measures should be applied.

## Software Features

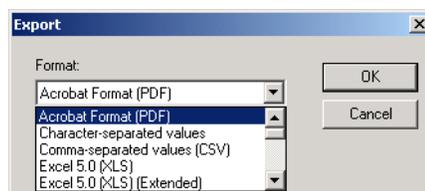
- ❑ Whichever button is shadowed/dotted inside a window is the button selected for activation with the keyboard Enter key.
- ❑ Whichever character on a menu or button is underlined indicates that the function may be activated with the Alt key and that character.



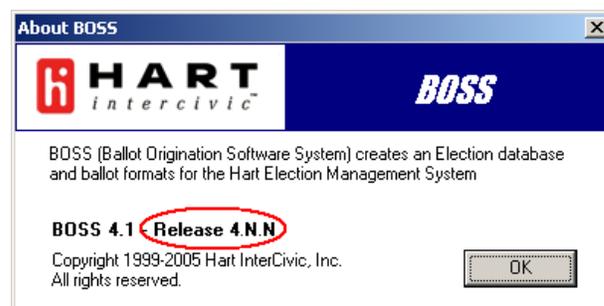
- ❑ In a menu, an arrow facing to the right opens a pop-up menu, offering more choices.



- ❑ In a dialog box, the arrow facing down opens a list box, offering more choices.



- ❑ Per application, to view the version release number (N.N.N), go to the **Help** menu and click **About**.



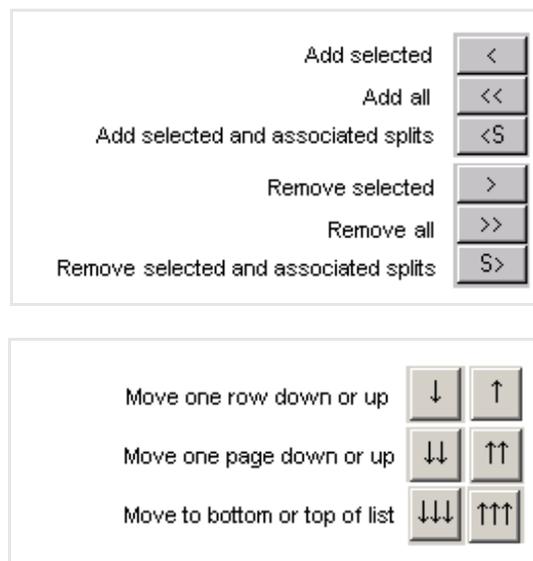
### The following tips apply to specific software programs:

- ❑ BOSS, Ballot Now, Tally, and SERVO: To highlight/select a list of items (e.g., precincts) that are consecutive, use Shift + Click.
  1. Click the first item once.
  2. Hold down the Shift key.
  3. Click the last item once.
  4. Release the Shift key.
- ❑ BOSS, Ballot Now, Tally, and SERVO: To highlight/select a list of items (e.g., precincts) that are *not* all consecutive, use Ctrl + Click.
  1. Click the first item.
  2. Hold down the Ctrl key.
  3. Continue to click items, holding down the Ctrl key, until you have selected all targeted items.
  4. Release the Ctrl key.

❑ BOSS Copy and Paste:

1. Only copy and paste from “flat” text files that were originally written in Arial Unicode, and that are opened from within Notepad. When using copy/paste, there is a possibility that unwanted characters can be pasted into BOSS.
2. Select the item(s) you wish to copy from the source document.  
(To select, click and drag over the item to highlight it.)
3. Press Ctrl and then C (the shortcut key for copy).
4. Return to BOSS.
5. Make certain the cursor is blinking in the field you wish to paste into and press Ctrl + V to paste.
  - You can copy and paste from one BOSS field to another, in most windows, by using Ctrl + a shortcut key (C,X,V).

❑ BOSS arrow buttons:



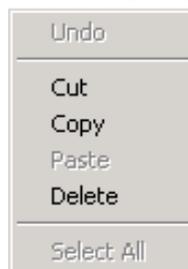
- ❑ BOSS: Double-clicking on a selection also moves that selection from one column to another.
- ❑ BOSS: Once the ballot is generated, the current database cannot be edited or changed. Audio is not available for recording after generating a ballot. Once the MBBs are written, the only action available is to write additional MBBs. Once the BOSS database is finalized for Tally, no actions are available in that database.

**See:**

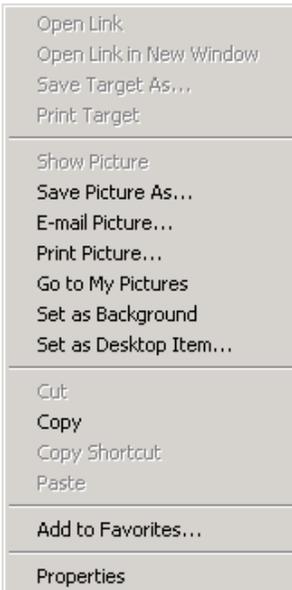
“Appendix D: Backing Up Election Databases” on page 113.

❑ BOSS Right-click Functionality:

- The right-click mouse function is available for standard options in many BOSS fields.



- In addition, graphics options are available via the right-click function on the **Ballot Preview** tab of the **Ballot Generation/Preview** window.



❑ BOSS Pipe Character Functionality:

- Pipe characters (|) can be used to force a line of text to the next row. This is useful when formatting ballots in BOSS.
- The pipe character can be inserted using Shift and the backslash (\) key on the keyboard. The backslash is just above the Enter key on the right side of the keyboard.



- A single pipe character (e.g., “text|text”) will have the effect of a hard return. The text after the pipe will start on a new line.
- There is no need for a space either before or after the pipe character, unless two hard returns are the desired outcome (e.g., “text| |text” would result in a blank line between the two words).
- A double pipe character without a space between pipes (e.g., “text||text”) will have the effect of hiding the text after the second pipe on all ballots.

## Appendix D: Backing Up Election Databases

### What Data to Back Up

The following database folders should be backed up to CD<sup>1</sup>:

- eCM Manager; \*.eCM file created with the **Save File** function
- BOSS; Numbered folder with BossData.db and BossData.cfg files
- Ballot Now Test; Numbered folder with the election I.D. followed by a “T” (e.g., 023T), in addition to the BNsecurity.db and BNsecurity.cfg files in the “Ballot Now” folder
- Ballot Now Election; Numbered folder with the election I.D. (e.g., 023), in addition to the BNsecurity.db and BNsecurity.cfg files in the “Ballot Now” folder
- Rally; “Database” folder with the Mbbtrans.db and Mbbtrans.cfg files
- Tally Test; Numbered folder with the TallyData.db and TallyData.cfg files
- Tally Election; Numbered folder with the TallyData.db and TallyData.cfg files
- SERVO; “Database” folder with the ServoData.db and ServoData.cfg files.

*Locations of Election Database Folders for Backup:*

- eCM Manager; after selecting **Save File**, use standard Windows navigation to navigate to a folder named for the election and to name the .eCM file.
- BOSS; C:\boss\Database\YearMonthDay-HourMinuteSecond (12 digits)
- Ballot Now; C:\Program Files\Hart Intercivic\Ballot Now\### (three-digit Election I.D.)
  - C:\Program Files\Hart Intercivic\Ballot Now\BNsecurity.db
  - C:\Program Files\Hart Intercivic\Ballot Now\BNsecurity.cfg
- Rally; C:\Program Files\Hart InterCivic\Rally\Database
- Tally; C:\Program Files\Hart InterCivic\Tally\Database\YearMonthDay-HourMinuteSecond (12 digits)
- SERVO; C:\Program Files\Hart InterCivic\SERVO\Database

*Naming conventions for folders and CD files:*

- Name each application’s backup folder with the application, election, type of election, and date of election. (Example: BOSSgeneral\_11.02.04)
- Name the CD within the character limits for the CD creator application. The jurisdiction, election, and election date should be included. (Example: Smith\_gen11.2.04)

### How and When to Back Up Data

BOSS, Tally, and Rally include backup or archive functions within the user interface. An administrator-level user may use this function to back up the database and configuration files to a user-defined directory on the PC. Database and configuration files should always be saved to folders named for the election, the time and date, and the status of the database.

All application databases can be backed up by saving the folders indicated in the “Locations of Election Databases” section to a user-defined directory on the PC and/or directly to CD. These folders should always be saved to a directory (folder) named for the election, the time and date, and the status of the database.

- Back up the .eCM file:
  - Immediately after creating eCMs for the election.
- Back up the numbered BOSS database folder (or use the **Archive** function in BOSS):
  - Immediately before exporting text for translation
  - After importing translated text and audio
  - After completing all proofreading and before generating the ballot

---

1. If a database is too large for backup to CD, another medium will be required.

- After generating the ballot and writing media, but before finalizing the database
- After finalizing the database.
- Back up the numbered Ballot Now database folder and BNsecurity.db and BNsecurity.cfg files:
  - After closing the election in Ballot Now, at minimum.
- Back up the numbered Tally database folder (or use the **Backup** function in Tally):
  - After each instance of creating printed and exported reports for public use (e.g., media outlets)
  - After processing absentee by-mail MBBs on Election Day
  - After processing Early Voting MBBs
  - After each instance of creating printed and exported reports for public use (e.g., media outlets) on Election Day
  - After processing absentee by-mail late mail MBBs after Election Day
  - Before resolving write-in votes
  - Before resolving provisional ballots
  - Before finalizing
  - After finalizing
  - Immediately after Canvassing.
- Back up each Rally station “Database” folder (or use the **Archive** function in Rally):
  - After processing all MBBs and printing and exporting final reports and before resetting the Rally database (including before resetting the Rally database as an emergency procedure).
- Back up the SERVO “Database” folder:
  - After inventorying equipment with SERVO pre-election
  - After backing up equipment post-election
  - On the “master” SERVO PC after combining events into one “master” event for an election, if applicable.

### **Backing up to CD**

In order to back up to a CD, use the CD creator application supplied with the Hart InterCivic PCs. Refer to the online help for the specific steps for creating a CD.

Hart InterCivic suggests using a CD-R rather than a CD-RW. A CD-R is a one-time use—you can only write to it once, and then you can only read off of it. A CD-RW is readable/writable, and can be used multiple times like a floppy disk—you can read and write to it as often as you want. CD-Rs are inexpensive, and the data on the CD itself cannot be changed. This makes the CD-R option a good media for backing up data.

- After creating a CD, always navigate to the CD drive and verify that the CD contains all of the data intended for backup.
- Label the CD with the Jurisdiction, Election Title, Date, and eSlate application.
- File the CD in a secure location.

## Appendix E: Accent Marks for Spanish Language Text

To enter diacritical marks into TRANS or BOSS fields, press and hold the ALT key then press Zero + the number(s) corresponding to the character you wish to insert. **Use only the PC numeric keypad for number entry. The numbers along the top of the keyboard will *not* work.**

0 ■	32	64 @	96 `	128 ■	160	192 à	224 à
1 ■	33 ?	65 A	97 a	129 ■	161 ì	193 á	225 á
2 ■	34 "	66 B	98 b	130 ¸	162 ç	194 â	226 â
3 ■	35 #	67 C	99 c	131 ¸	163 £	195 ã	227 ã
4 ■	36 \$	68 D	100 d	132 ¸	164 ¢	196 ä	228 ä
5 ■	37 %	69 E	101 e	133 ¸	165 ¥	197 ã	229 ã
6 ■	38 &	70 F	102 f	134 ¸	166 !	198 æ	230 æ
7 ■	39 `	71 G	103 g	135 ¸	167 §	199 ç	231 ç
8 ■	40 (	72 H	104 h	136 ¸	168 "	200 È	232 è
9 ■	41 )	73 I	105 i	137 ¸	169 ©	201 É	233 é
10 ■	42 *	74 J	106 j	138 ¸	170 ¢	202 Ê	234 ê
11 ■	43 +	75 K	107 k	139 ¸	171 «	203 Ë	235 ë
12 ■	44 ,	76 L	108 l	140 ¸	172 ¬	204 Ì	236 ì
13 ■	45 -	77 M	109 m	141 ■	173 -	205 Í	237 í
14 ■	46 .	78 N	110 n	142 ■	174 ©	206 Î	238 î
15 ■	47 /	79 O	111 o	143 ■	175 -	207 Ï	239 ï
16 ■	48 0	80 P	112 p	144 ■	176 °	208 Ð	240 ð
17 ■	49 1	81 Q	113 q	145 ¸	177 ±	209 Ñ	241 ñ
18 ■	50 2	82 R	114 r	146 ¸	178 ²	210 Ò	242 ò
19 ■	51 3	83 S	115 s	147 ¸	179 ³	211 Ó	243 ó
20 ■	52 4	84 T	116 t	148 ¸	180 ´	212 Ô	244 ô
21 ■	53 5	85 U	117 u	149 ¸	181 µ	213 Õ	245 õ
22 ■	54 6	86 U	118 v	150 ¸	182 ¶	214 Ö	246 ö
23 ■	55 7	87 W	119 w	151 ¸	183 -	215 ×	247 ÷
24 ■	56 8	88 X	120 x	152 ¸	184 ˆ	216 Ø	248 ø
25 ■	57 9	89 Y	121 y	153 ¸	185 ¸	217 Ù	249 ù
26 ■	58 :	90 Z	122 z	154 ¸	186 ¸	218 Ú	250 ú
27 ■	59 ;	91 [	123 {	155 ¸	187 »	219 Û	251 û
28 ■	60 <	92 \	124	156 ¸	188 ¼	220 Ü	252 ü
29 ■	61 =	93 ]	125 }	157 ■	189 ½	221 Ý	253 ý
30 ■	62 >	94 ^	126 ~	158 ■	190 ¾	222 Þ	254 þ
31 ■	63 ?	95 _	127 ■	159 ¸	191 ˆ	223 ß	255 ß

■ Indicates that this character isn't supported by Windows.

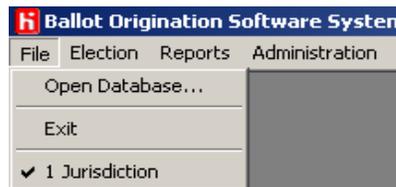
¸ Indicates that this character is available only in TrueType fonts.

**Notes:**

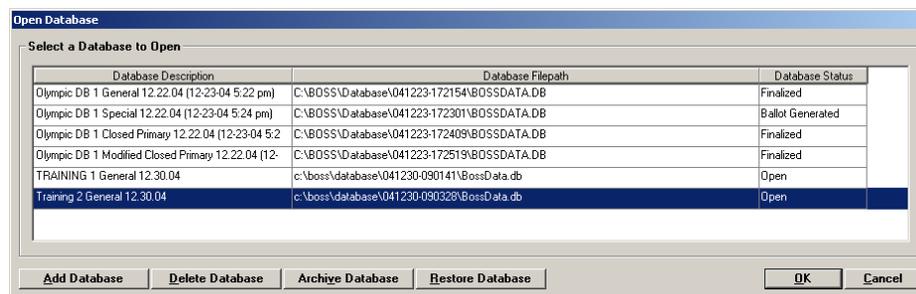
## Appendix F: Copying Forward a BOSS Database

Follow these procedures in order to create a copy of an existing database. Copying forward is useful when data changes must be made after a database has been generated or finalized. When copying forward, all data in the original database is retained, available ballot templates are retained (i.e., if special templates were installed for the original database, they will carry over), and the newly created database is in an open state.

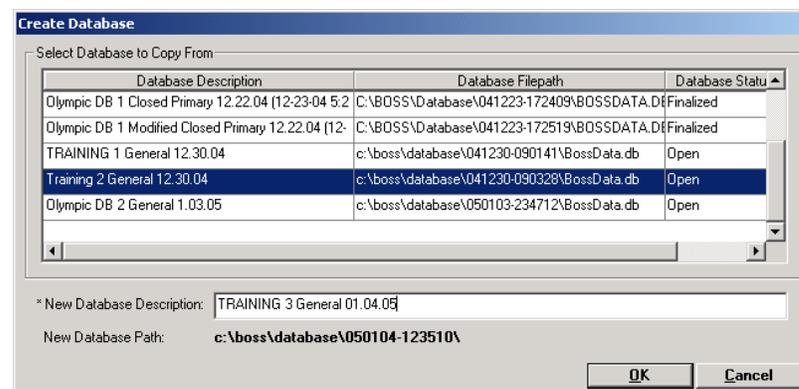
1. Go to the **File** menu and click **Open Database**.



2. In the **Open Database** window, click **Add Database**.



3. In the **Create Database** window, select the existing database targeted to copy forward.



4. Enter a new database description.
  - > After creating a database the description appears in the **Database Description** field of the **Open Database** window.
  - > This does *not* name the actual file. The name of the file is "BossData.db". The entire path to this file appears in the **Database Filepath** field of the **Open Database** window.
  - > BOSS allows multiple databases with identical descriptions.
  - > Use a standard naming convention for databases, including a description of the database, the sequence number, the election name or type, and the date.

### See:

Suggested naming conventions in "Database Management" on page 9.

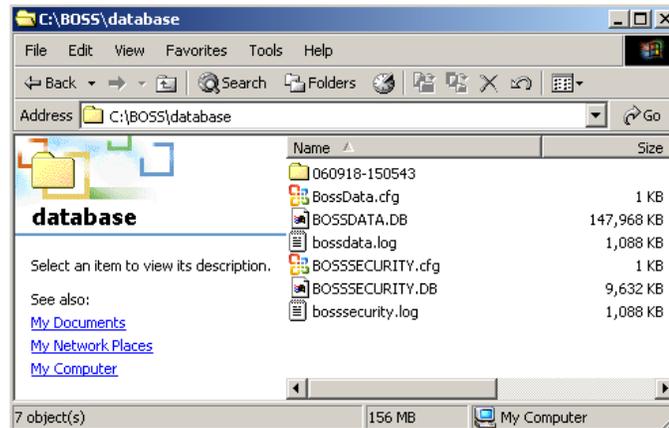
5. Click **OK** and proceed to open the new database.

**Notes:**

## Appendix G: Updating BOSS Templates

Follow these procedures in order to apply new BOSS ballot templates delivered from Hart InterCivic in the form of a new default BOSS database.

1. Open C:\BOSS\database, find the BOSSDATA.db and BossData.cfg files, and copy them.



2. Create a new folder on your PC desktop, name it Sys 6.2 Orig BOSS Default db, and paste the two BOSS files into it.
3. Save the Sys 6.2 Orig BOSS Default db folder to CD and *delete* it from your desktop.
4. Create a new folder on your PC desktop and name it MODIFIED.
5. Copy the modified BOSSDATA.db and BossData.cfg files you got from the ftp site or CD and place them into the MODIFIED folder on your desktop.
6. Copy the BOSSDATA.db and BossData.cfg files into C:\BOSS\database. Click **Yes** to replace the current files.
7. Delete the MODIFIED folder and empty the recycle bin on your PC.
8. Delete the bossdata.log file from the C:\BOSS\database folder.

**Note:**

Do *not* delete bosssecurity.log.

9. Create a new folder on your PC desktop and name it EXPORT.
10. Open BOSS, open the smallest BOSS database on your system, and export *all* files to this EXPORT folder.
11. In BOSS, go to the **File** menu and click **Open Database**.
12. Click **Add Database**, name the new database Test of Mod Default, open it, and import the data files from the EXPORT folder you created. If you see the message “Records currently exist for the selected element”, click **Replace**. If you see a message relating to FASTLOAD, click **Yes**.
13. Open the Test of Mod Default database, go to the **Ballot Formats** menu, and click **Ballot Templates**. The bottom of the template list (eSlate or Ballot Now, as appropriate) contains the new modified template(s). Remember to choose a paper size for your new Ballot Now template.
14. Select the new template(s) and generate the ballot for preview. Review the ballot styles to ensure they have the new format intended from the modified template(s).
15. Reject the ballot, delete the Test of Mod Default database if desired, and close BOSS.
16. In order to apply these templates to a database created prior to installing the new default database:
  - a. Open the preexisting database.
  - b. Export all files and close the database.
  - c. Open a new database in BOSS, copying from the default database.
  - d. Import the files into the new database.
  - e. Proofread all data in the new database.

**Notes:**

## Appendix H: California Rotation and BOSS

### Introduction

#### Purpose

The purpose of this appendix is to clarify California rotation requirements and how they are applied in BOSS. It is not meant to *teach* California rotation requirements, but to identify the application of those requirements in the functionality of BOSS.

#### Overview

California rotation is the application of a set of rules against a set of data. First, you must understand district types and how these types associate with each other. Then the rules that apply for each contest type (State-Wide, BOE, Congressional, etc.) become easier to understand.

This appendix discusses the following:

- District types and how they are associated with one another
- California rotation rules and how they apply to district types
- How to set up California rotation in BOSS

#### California Alphabets

There are two different alphabets by which the candidate names are ordered:

- Secretary of State (SOS) Random Alphabet
  - Drawn by the Secretary of State at 11:00 a.m. on the 82nd day prior to the election
  - Used for all offices except multi-county state legislative offices
- County Random Alphabet
  - Drawn by each county in which there are multi-county legislative districts at 11:00 a.m. on the 82nd day prior to the election
  - Used only for multi-county state legislative offices

### District Types

#### State Assembly Districts

California is separated into individual, discrete districts called State Assembly Districts, each denoting the district of an elected Assemblyman. For purposes of candidate rotation only, there may be several Assembly Districts within each Board of Equalization, Congressional, County-Wide, and State-Wide district.

State Assembly Districts that reside outside the election jurisdiction (e.g., Orange County) but still must be considered for purposes of rotation are called *Multi-Jurisdiction* Assembly Districts in BOSS.

Every Assembly District is numbered (e.g., 47<sup>th</sup> Assembly District, 68<sup>th</sup> Assembly District, etc.). This number is important because it is the order in which rotation is implemented. Therefore, in BOSS, this number is known as the “rank” of the Assembly District.

Candidates for State Assembly contests do not rotate.

#### State-Wide Districts

The State-Wide District is the entire State of California. State-wide contests are contests that appear in every ballot in California. Examples are Governor and Lieutenant Governor.

## **Board of Equalization**

Board of Equalization (BOE) Districts are districts of elected Board of Equalization members. BOE Districts contain State Assembly Districts, some of which may not lie within the election jurisdiction. All State Assembly Districts still must be considered for purposes of rotation.

## **Congressional Districts**

Congressional Districts are districts of elected Federal Congressional members. Congressional Districts contain State Assembly Districts that may or may not reside within the election jurisdiction. In other words, Assembly Districts make up Congressional Districts which may encompass an area outside the election jurisdiction. Only those Assembly Districts within that Congressional District must be considered for purposes of rotation.

## **County-Wide Districts**

The County-Wide District is the district encompassing the entire county, which is usually the area representing the election jurisdiction. The county-wide contests, such as County Commissioner, are applied within the County-Wide District.

The County-Wide District rotates either by the State Assembly Districts therein (if there are at least five of them within the county) or by the Supervisorial Districts (if there are less than five State Assembly Districts within the county).

## **Supervisorial Districts**

Supervisorial Districts represent the areas for Supervisorial contests. There are five Supervisorial Districts in each county. These contests sometimes rotate their candidates (in San Mateo County, for example), and in that case must be identified in BOSS as State Assembly Districts or State Assembly Districts (Multi-Jurisdiction) so you can associate them with subdistricts.

## **State Senate Districts**

State Senate Districts represent districts of elected State Senators and do not affect the rotation of any contest.

Candidates for State Senator contests do not rotate. This type exists in BOSS only to give you a way to distinguish them separately.

## **California Rotation Requirements**

### **General**

Rotation and Random Alphabet – The order in which the candidates appear after having been placed in the Secretary of State's (SOS) Random Alphabet is the 1st rotation. For the 2nd rotation, drop the top candidate to the bottom of the list and move all other candidates up. Continue this process through each rotation. The same process is followed in multi-county state senate and state assembly contests, which use county random alphabets.

Rotation Indices and Rotation Rank – The contest rotation index in contests that rotate is determined by rank order of the Assembly District within that contest district type, with the “fewer than five” Supervisorial District exception. BOSS computes indices based on district ranks and district-to-district assignments input via the California Rotation Wizard.

## **Candidate Order in State-Wide Contests**

SOS Random Alphabet

State-wide contests are contests that appear in every ballot in California. Examples are Governor and Lieutenant Governor.

Explicit Rotation Index based on Assembly District: The State of California requires that state-wide contests rotate their candidates by Assembly District rank. The original order appears in Assembly District Number 1. Rotations continue throughout all Assembly Districts in these contests.

For example, the Governor's contest in a precinct within the 46th State Assembly District rotates its candidates to the 46th order of rotation.

## **Candidate Order in Board of Equalization (BOE)**

SOS Random Alphabet

Derived Rotation Index based on Rank of Assembly District: Rotate by Assembly District within the BOE, using the rank of the Assembly District to order the Assembly Districts within the BOE. The original order appears in the lowest numbered Assembly District in the contest. Rotations continue throughout all Assembly Districts in that contest.

For example, if an Equalization District has the 26th, 30th, 33rd, and 35th Assembly Districts, but only the 26th, 30th, and 35th Assembly Districts are in the county, that Equalization District's candidates will appear in the 1st, 2nd, and 4th rotations. The 3rd rotation will be used in the county(ies) in which the 33rd Assembly District lies. Thus, the necessity for keeping track of those Assembly Districts that are "out of jurisdiction" (multi-jurisdiction) because they are used to calculate the order of rotation.

If there is more than one Equalization District, each must rotate individually.

## **Candidate Order in Congressional (Federal) Contests**

SOS Random Alphabet

Derived Rotation Index based on Rank of Assembly District: Rotate by Assembly District within Congressional District, using the rank of the Assembly District to order the Assembly Districts within the Congressional District. The original order appears in the lowest numbered Assembly District in the contest. Rotations continue throughout all Assembly Districts in that contest.

For example, if a Congressional District has the 13th, 14th, 18th, and 22nd Assembly Districts, but only the 13th and 22nd Assembly Districts are in the county, the candidates in that Congressional District will appear in the 1st and 4th rotations. The 2nd and 3rd rotations will be used in the county(ies) in which the 14th and 18th Assembly Districts lie.

If there is more than one Congressional District, each must rotate individually.

## **Candidate Order in County-Wide Contests**

SOS Random Alphabet

Derived Rotation Index based on Rank of Assembly District: If there are five or more State Assembly Districts within the county, the county-wide contests rotate by Assembly District within the County-Wide District.

For example, suppose the County Commissioner contest is in all seven Assembly Districts (say Assembly Districts 61-67 inclusive) in the county. Ordering by Assembly District rank, the candidates rotate by the following order: 61st AD = 1, 62nd AD = 2, 63rd AD = 3 and so on.

Explicit Rotation Index based on Supervisorial District: If there are fewer than five State Assembly Districts within the county, candidates rotate by Supervisorial District rank within the County-Wide District.

For example, County Commissioner would rotate its candidates by Supervisorial District as follows: 1st Supervisorial District = 1, 2nd Supervisorial District = 2, 3rd Supervisorial District = 3, and so on.

### Offices in Which Candidate Names Do Not Rotate

#### *State Legislative Offices (State Senate and State Assembly)*

The order of candidate names for the particular race is determined from the SOS random alphabet draw. There is no rotation, even though a State Senate District may cover more than one Assembly District. For State Assembly contests, since rotation is based on Assembly District, and these are assembly races, there is no rotation.

#### *Other offices*

- County Supervisor (except in some cases, such as San Mateo County)
- County Central Committee/County Council (unless elected at-large)
- Judicial Offices (if not county-wide, otherwise rotate by Assembly District rank within county)
- Municipal/City (unless they have adopted rotation by clusters of precincts)
- School District
- Special District

### California Rotation and BOSS

In BOSS, use the California Rotation Wizard to correctly assign rotation indices to contest/precinct relationships in accordance with sections 13100-13121 of the California Elections Code.

- < Back** button: Allows you to return to a prior step.
- Next >/Finish** button: Allows you to move on to the next step. On the last step, this button displays the word 'Finish' instead of 'Next >'.
- Cancel/Close** button: When the button displays 'Cancel', the Wizard closes saving no changes. When the button displays 'Close', the Wizard has completed processing and can be closed.

1. Before you use the Wizard, you must fully define all precincts, districts, contests, district/precinct associations, and contest/district associations. Plan for rotation when you create your districts. Make a State-Wide District for every contest that appears on every ballot in California; they will rotate by State Assembly District. Use your County-Wide District only for those contests that will rotate by Supervisorial District.

County-wide contests rotate by Supervisorial District only in those counties that have fewer than five State Assembly Districts. If a county has five or more, their candidates rotate by State Assembly District rather than Supervisorial District, and in that case you can use a single district in BOSS for both state-wide and county-wide contests.

2. Obtain the SOS random alphabet for the election and the county random alphabet. Click the **Contests** tab to create contests, if you haven't already done so. Go to the **Election** menu and click **Active Contests** to enter the options (candidate names) in the appropriate order. Use the

SOS alphabet for everything except candidates for State Senate and State Assembly, for whom you will use the county alphabet.

3. To use the California Rotation Wizard, click the **Rotation** tab in the **Jurisdiction** window, select the **By Precinct** radio button, and then click the **California Rotation Wizard** button. The first screen explains the purpose of the Wizard. Click **Next >**.
4. The next screen allows you to type and rank districts. This is where you will define what the district types are and assign ranks to State Assembly and Supervisorial Districts.

The Wizard does not recognize the value of the rankings of the districts, only the quantity of each type of district. This means that you must create all of the State Assembly Districts from 1 to the highest ranking district in your county, even if you will not assign any precincts to most of them. For example, if you have State Assembly Districts 12, 19, and 21, create districts 1 through 21, where districts other than 12, 19, and 21 serve as placeholders.

5. In the Wizard, identify the districts according to their types, except for the Supervisorial Districts in the event that they must rotate (as in San Mateo County, for example). If they must rotate, identify the Supervisorial Districts as State Assembly Districts or State Assembly Districts (Multi-Jurisdiction) in the Wizard. This will not adversely affect your ballot, but will allow you to associate those districts with subdistricts by which to rotate (namely, with the Supervisorial Districts themselves).

**California Rotation Wizard**

**Assign Type to Districts**

For each district, define its district type and rank where applicable. The choices for district types are Board of Equalization, Congressional, County Wide, State Wide, State Assembly, Supervisorial and None. Rank refers to the order of the district for its type (i.e., 46th Assembly District = 46). When finished, click Next.

District Name	District Type	Rank
District 1	None	0
District 2	None	0
State Assembly District 1	State Assembly	1
State Assembly District 2 (multi-jurisdictional)	State Assembly (Multi-Jurisdiction)	2
State Assembly District 3	State Assembly	3
State Wide District	State Wide	0
US 45th Congressional	Congressional	0

< Back    Next >    Cancel

When you have finished typing and ranking districts, click **Next >**.

6. The next screen allows you to associate your rotating districts with the subdistricts by which they must rotate. For the State-Wide District, associate all your State Assembly Districts, both those within your county and the placeholder districts you created in step 2 (but not the Supervisorial Districts, even if you have identified them as State Assembly Districts). For the County-Wide District, associate all the Supervisorial Districts, if they are the basis of rotation in the county-wide contests (see step 1 above).

The following associations are allowed:

- > Supervisorial Districts are always associated with Assembly Districts
- > Assembly Districts are always associated with Board of Equalization and Congressional Districts
- > Assembly Districts are always associated with County-Wide Districts, unless there are fewer than five Assembly Districts within the County-Wide District, in which case, Supervisorial Districts are associated with the County-Wide District instead of Assembly Districts

**Note:**

To associate Congressional Districts, you must find out which State Assembly Districts are within each Congressional District, whether they are within your county or not. They are the only ones through which the candidate names will rotate. For example, if the Congressional District contains State Assembly Districts 12, 14, 19 and 21, and only 12, 19 and 21 are within your county, you will associate with that Congressional District only State Assembly Districts 12, 14, 19 and 21, not the entire series from 1 to 21. This will give you the correct rotation for that Congressional District across the three State Assembly Districts in your jurisdiction. Create the associations for each Congressional District separately in this manner.

When you have finished associating districts, click **Next >**.

7. The next screen informs you that all data has been gathered and that the wizard is ready to begin processing. When you click **Finish**, the calculation process brings up a BOSS processing window that allows you to view the processing being performed.
8. A congratulation screen appears to inform you that processing is finished. Click **Close** to exit the California Rotation Wizard.

9. To check the accuracy of the rotation, complete the following steps:
  - 9.1 Go to the **Election** menu and click **Write Ballot Media**.
  - 9.2 Write an MBB to use with the eSlate system and/or Ballot Now.
  - 9.3 Insert the written MBB into a JBC and view the ballots on an eSlate and/or use the written MBB to print ballots in Ballot Now.
  - 9.4 Proofread the ballots. If the ballots contain errors, copy the BOSS database forward and run the California Rotation Wizard again. If you must run the wizard again, all types and associations created previously are preserved.

**Notes:**

## Appendix I: BOSS Training Election Outline

Use the following outline to create a simple election database. This training exercise will guide you through the various functions available in BOSS.

### ❑ Image Preparation

- If images are to be used on the ballot, format the images ahead of time before importing into target areas

### ❑ Creating the Database

- Create a database based on (New Database)
- Name the database: <DESCRIPTION # Election Type Date>

### ❑ Activities in the Jurisdiction Window

- Title: BOSS Training
- Type: General, Special, Closed Primary, or Modified Closed Primary Election
- Ballot Header: Determined by upcoming election type
- Date: Date of class
- State Code: Jurisdiction State
- Jurisdiction Organization: As appropriate to the implementation
  - > Precinct/Contest
  - > Precinct/District/Contest
  - > Both
- Define the Jurisdiction Title: YourName County
  - > Set incumbent indicators, if applicable
  - > Identify write-in label: As appropriate to the implementation
  - > Identify precinct label: As appropriate to the implementation
- Party Maintenance: Add parties to match ballot type (optional: and import image(s) for the header)
  - > NonPartisan (NP), do not overwrite with anything but nonpartisan-type "party"
  - > Famous Party (FAM)
  - > Historical Party (HST)
- Select Languages: As appropriate to implementation
  - > Select Spanish, if applicable (Training Ballot: English Only)
- Set Ballot Instructions for eSlate and Ballot Now/eScan (optional: and import image)
  - > Copy and paste from standard instructions language .txt document in Notepad
  - > Define instructions for audio
- Define eSlate Options
  - > Close and Suspend Polls times: As appropriate to the implementation
  - > Minutes Access Codes are active: 30
  - > Early Voting Retrievable Status: As appropriate to the implementation
  - > Summary and Verification Pages font size: 14-32 point (to fit candidate names)
  - > JBC Reports: Tally and/or Write-in and combine splits as appropriate to the implementation
  - > Include Provisionals in (JBC) Results: As appropriate to the implementation
  - > VBO Required, VBO Ballot Rejection Limit and VBO Print Ballot Key: As appropriate to the implementation
  - > Passwords for the eSlate
    - \_\_Administration Password: 222222
    - \_\_Start-up: 121212
    - \_\_ED Open Polls:121212
    - \_\_ED Close Polls:121212
    - \_\_EV Open Polls:121212
    - \_\_EV Suspend Polls:121212

- Define eScan Options
  - > Close and Suspend Polls times: As appropriate to the implementation
  - > Passwords for the eScan
    - \_\_Administration: 222222
    - \_\_Start-up: 121212
    - \_\_ED Open Polls: 121212
    - \_\_ED Close Polls: 121212
    - \_\_EV Open Polls: 121212
    - \_\_EV Close Polls: 121212
  - > eScan Tape: Tally and combine splits as appropriate to the implementation
  - > Include Provisionals in (eScan) Results: As appropriate to the implementation
  - > Ballot Processing Settings: As appropriate to the implementation

- **Precincts** Tab Definitions
  - > Add 12 precincts, using a two digit naming convention (01 through 12)
  - > Split precinct 08 into 08A and 08B
  - > Split precinct 09 into 09A and 09B
  - > Delete precinct 12
  - > Consolidate precinct 09
  - > Move precinct 05 to the top of the list, and then back down
- **Districts** Tab Definitions, if applicable to the implementation
  - > Add a “County Wide District” and assign all precincts
  - > Add “State District 1”, “State District 2”, “State District 3”
  - > Delete State District 3
  - > Assign precincts 01-05 to state district 1
  - > Assign precincts 06-11 to state district 2
  - > Add a district for County Place 1 and assign precincts 01-03
  - > Add a district for County Place 2 and assign precincts 04-08, including splits

- **Contests Tab Definitions (assignments in bold)**

**Note:**

These are District-to-Contest or Precinct-to-Contest assignments, as applicable.

For each contest or ballot text item, the description field should be modified to identify party affiliation if this is a primary election. Contests must be entered per party if this is a primary election.

- > Add one "Straight Party" contest, if applicable to election type and implementation (**County Wide District/ or all precincts**)
- > Add ballot text "Federal Contests" (**County Wide District/ or all precincts**)
- > Add "President" (**County Wide District/ or all precincts**)
- > Add "United States Senator" (**County Wide District/ or all precincts**)
- > Add "United States Representative" (**County Wide District/ or all precincts**)
- > Add ballot text "State Contests" (**County Wide District/ or all precincts**)
- > Add "Proposition 1" (**County Wide District/ or all precincts**)
- > Add "State Senator" (**County Wide District/ or all precincts**)
- > Add "State Representative District 2" (**State District 2/ or precincts 06-11**)
- > Add "State Representative District 1" (**State District 1/ or precincts 01-05**)
- > Add ballot text "County Contests" (**County Places 1 and 2/ or precincts 01-08, including splits**)
- > Add "County Commissioner, Place 1" (**County Place 1/precincts 01-03**)
- > Add "County Commissioner, Place 2" (**County Place 2/ precincts 04 – 08 including splits**)
- > Delete "Federal Contests" ballot text item
- > Delete "State Contests" ballot text item
- > Add ballot text "Ballot Measures" (**County Wide District/ or all precincts**)
- > Update at least one Contest Description field
- **Precinct-Level Contests Tab Definitions**, if applicable to the implementation (**assignments in bold**)

**Note:**

Precincts 08A, 08 B and 11 may be added as a City Place 5 district and assigned in the **Contests** Tab if it is determined that the jurisdiction will not use Precinct-Level Contests.

- > Add "Local Contests" (ballot text) (**precincts 08A and 08B, 11**)
- > Add "City Council Member, Place 5" (**precincts 08A and 08B, 11**)
- > Add "City Superintendent of Schools" (**precincts 08B, 11**)
- > Add "Dogcatcher" (**precinct 01**) - SAVE
- > Delete "Dogcatcher" - SAVE
- **Polling Places Tab Definitions**

**Note:**

For primary elections, add polling places as appropriate to the implementation for shared or separate polling places per party in a closed primary.

- > Add 6 polling places
- > Delete one polling place
- > Assign precincts to polling places for Early Voting and Election Day, as appropriate to the implementation
- **Rotation Tab Definitions**: As appropriate to the implementation

## ❑ Activities in the Active Contests and Contest Details Windows

### Note:

FOR CANDIDATES, ENTER ONE FAMOUS PERSON (e.g., Mel Gibson) AND ONE HISTORICAL PERSON (e.g., George Washington) FOR EACH CONTEST.

Enable rotation and fractional cumulative voting as applicable per contest.

If cumulative and/or “vote for” multiple candidates options are used in the implementation, apply these settings to county and/or local contests.

Optional: Import images for contests.

- Instruction Note: Change to “Ballot Directions”
- Move “Proposition 1” to the end of the ballot
- Move “Ballot Measures” to precede “Proposition 1”
- Edit Straight Party Contest (straight party, straight party instructions optional)
- Add Straight Party options:
  - > Famous Party
  - > Historical Party
- Edit Contests and Add Options:

### Note:

Apply primary party affiliations and contests shared with nonpartisan for modified closed primary as appropriate to the implementation and election.

- > President (office, SP, 1 choice, “vote for one” instructions)
- > United States Senator (office, SP, 1 choice, “vote for one” instructions)
- > United States Representative (office, SP, 1 choice, “vote for one” instructions)
- > State Senator (office, SP, 1 choice, “vote for one” instructions)
- > State Representative District 2 (office, SP, 1 choice, “vote for one” instructions)
- > State Representative District 1 (office, SP, 1 choice, “vote for one” instructions)
- County Contests (ballot text)
  - > County Commissioner, Place 1 (office, 1 choice, “vote for one” instructions)
  - > County Commissioner, Place 2 (office, 1 choice, “vote for one” instructions)
- Local Contests (ballot text)

### Note:

THE FOLLOWING CONTESTS ARE NONPARTISAN (if appropriate for the election type), CHOOSE 1 FAMOUS **and** 1 HISTORICAL PERSON.

- > City Council Member, Place 5 (office, 1 choice, 1 write-in, “vote for one” instructions)
- > City Superintendent of Schools (office, 1 choice, “vote for one” instructions)
- Ballot Measures (ballot text): Change to standard locally used terminology
  - > Proposition 1 (proposition, 1 choice, proposition text, instructions, and options in standard locally used terminology)

### Note:

If dependent contests are used in the implementation, click the **Contests** tab and add an office contest that will depend on the option chosen in the proposition contest. Move the new contest to precede the proposition on the ballot; set up that contest in the **Active Contests** window, and make the proposition dependent on that contest, that option.

- Move “State Representative, District 1” to precede “State Representative, District 2”
- Delete one candidate and add “Bruce Willis” in his/her place
- Move “Bruce Willis” in the candidate order
- Add Candidate Details to “Bruce Willis”. For detail, use delegates, county of residence, or profession.

## ❑ **Completing the Ballot**

- Proofread using the “Active Contests Options List”, “Contest List with Details”, and “Assigned Precinct Report” reports
- Record Audio via TRANS
  - > Record English only. Apply “Auto Proof” functionality. Refer to TRANS agenda and user manual.
  - > Ballot Formats
    - \_\_ Review the **Ballot Data Validation** tab
    - \_\_ Select Ballot Templates for the eSlate and Ballot Now/eScan, as applicable
    - \_\_ Proofread the ballot on the **Ballot Preview** tab
    - \_\_ Print from the **Ballot Preview** tab and consider new formats for ballots that are multi-sheet, if possible. Take written note of selected formats.
    - \_\_ MAKE CORRECTIONS, AS NECESSARY, AND FORCE POSITION BREAKS FOR UNIQUE LOCATIONS IN ESLATE AND BALLOT NOW BALLOTS
    - \_\_ Export all data elements to a desktop folder named for this election (also: export audio)
    - \_\_ Archive the BOSS database before generating the ballot
    - \_\_ Generate and accept ballot formats (with eCM from M&T course)
- Write Ballot Media
  - > Write one MBB in Test Mode for upcoming training. At least one station writes six MBBs in Election Mode. Write one DAU audio card. Label cards.
- Ballot Reports for Election Support
  - > Print the “Media Production List” report. Print “Polling Place Summary” reports for both Early Voting and Election Day
- Finalize the BOSS database for Tally
  - > Archive the BOSS database and save to CD before finalizing
  - > Print the “Audit Trail” report
  - > Finalize the BOSS database (lock for Tally)
  - > Archive the finalized BOSS database and save to CD
  - > Restore either the pre-generated or pre-finalized BOSS database, labeled “RESTORE...”, and view
  - > Delete the restored database
- View/vote ballots on the eSlate, eScan, and/or Ballot Now.

## ❑ **Import/Export Functions**

- Create a new BOSS database from imported files (add languages, eSlate Options, eScan Options, forced positions)
- Export text and audio strings for foreign language translation, and train in TRANS (follow-up available for translators via WebEx sessions)
- Import translated text and audio, and proofread the reports and ballot preview
- Write media (including Demo cards) and view ballots on the eSlate, eScan, and/or Ballot Now.

**Notes:**

## Appendix J: BOSS Checklist for Creating a General or Special Election

	<b>BOSS Operator Steps (General or Special):</b>
	1. Double-click the BOSS desktop shortcut to open the application.
	2. Log in to BOSS as a user with all permissions.
	3. If you haven't already done so, set up BOSS users and permission levels.
	4. Create a BOSS database named "<Description # Election Type date>".
	5. Open the new BOSS database.
	6. Define the general or special election jurisdiction information.
	7. Define political parties.
	8. Select the languages to appear on ballots.
	9. Complete ballot instructions.
	10. Define eSlate options.
	11. Define eScan options, if applicable.
	12. Save <b>Jurisdiction</b> tab data.
	13. Define precincts.
	14. Define districts and assign precincts, if applicable.
	15. Define contests.
	16. Define precinct-level contests, if applicable.
	17. Define polling places.
	18. Select ballot rotation type.
	19. Add contest details in the <b>Active Contests</b> window.
	20. Edit active contests in the <b>Contest Details</b> window.
	21. Proofread the available ballot reports, and make corrections if necessary.
	22. As a risk-reduction measure, back up BOSS data and the database.
	22.1 Export all BOSS data files.
	22.2 Archive the database and save to CD.
	23. (Optional) Prepare for ballot translation by proofreading the existing ballots.
	24. Create four folders on the PC Desktop for data import and export.
	25. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 30.
	26. Move the contents of the Export Text folder into the Jobs folder.
	27. Use TRANS to translate text for multi-language ballots.
	28. Move the text files (.xlf) from the Jobs folder to the Import Text folder.



### **BOSS Operator Steps (General or Special):**

	29. Import translated text for multi-language ballots.
	30. Export English text for recording in TRANS.
	31. Export audio prompts for multi-language audio recording in TRANS, if applicable.
	32. Move the contents of the Export Audio folder into the Jobs folder.
	33. Use TRANS to record English and, if applicable, multi-language audio.
	34. Move the recorded audio files (.xml and .wav) to the Import Audio folder.
	35. Import recorded audio files.
	36. Verify that the ballot is complete.
	37. As a risk-reduction measure, back up BOSS data and the database.
	37.1 Export all BOSS data files.
	37.2 Export all translated text and recorded audio.
	37.3 Archive the database and save to CD.
	38. Select templates and preview ballots.
	39. Proofread the ballot on the <b>Ballot Preview</b> tab.
	40. Generate the ballot, or go back to make corrections.
	41. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.
	42. Print Ballot Style reports.
	43. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.
	<b>See:</b> "Planning Ballot Media Quantities" on page 24.
	44. Print reports.
	45. Verify that the MBBs and Audio cards contain the required information in the desired format.
	46. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.
	47. As a risk-reduction measure, archive the database and save to CD.
	48. Finalize the BOSS database for Tally.
	49. As a risk-reduction measure, archive the database and save to CD.
	50. Exit BOSS.

## Appendix K: BOSS Checklist for Creating a Primary Election

	<b>BOSS Operator Steps (Primary):</b>
	1. Double-click the BOSS desktop shortcut to open the application.
	2. Log in to BOSS as a user with all permissions.
	3. If you haven't already done so, set up BOSS users and permission levels.
	4. Create a BOSS database named "<Description # Election Type date>".
	5. Open the new BOSS database.
	6. Define the primary election jurisdiction information.
	7. Define primary election political parties and primary ballot headers.
	8. Select the languages to appear on ballots.
	9. Complete ballot instructions.
	10. Define eSlate options.
	11. Define eScan options, if applicable.
	12. Save <b>Jurisdiction</b> tab data.
	13. Define precincts.
	14. Define districts and assign precincts, if applicable.
	15. Define closed primary election contests.
	16. <i>OR</i> Define modified closed primary election contests.
	17. Define precinct-level contests, if applicable.
	18. Define closed primary election polling places.
	19. <i>OR</i> Define modified closed primary election polling places.
	20. Select ballot rotation type.
	21. Add primary election contest details in the <b>Active Contests</b> window.
	22. Edit primary election active contests in the <b>Contest Details</b> window.
	23. Proofread the available ballot reports, and make corrections if necessary.
	24. As a risk-reduction measure, back up BOSS data and the database.
	24.1 Export all BOSS data files.
	24.2 Archive the database and save to CD.
	25. (Optional) Prepare for ballot translation by proofreading the existing ballots.
	26. Create four folders on the PC Desktop for data import and export.
	27. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 32.
	28. Move the contents of the Export Text folder into the Jobs folder.

	<b>BOSS Operator Steps (Primary):</b>
	29. Use TRANS to translate text for multi-language ballots.
	30. Move the text files (.xlf) from the Jobs folder to the Import Text folder.
	31. Import translated text for multi-language ballots.
	32. Export English text for recording in TRANS.
	33. Export audio prompts for multi-language audio recording in TRANS, if applicable.
	34. Move the contents of the Export Audio folder into the Jobs folder.
	35. Use TRANS to record English and, if applicable, multi-language audio.
	36. Move the recorded audio files (.xml and .wav) to the Import Audio folder.
	37. Import recorded audio files.
	38. Verify that the ballot is complete.
	39. As a risk-reduction measure, back up BOSS data and the database.
	39.1 Export all BOSS data files.
	39.2 Export all translated text and recorded audio.
	39.3 Archive the database and save to CD.
	40. Select templates and preview ballots.
	41. Proofread the ballot on the <b>Ballot Preview</b> tab.
	42. Generate the ballot, or go back to make corrections.
	43. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.
	44. Print Ballot Style reports.
	45. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.
	<b>See:</b> "Planning Ballot Media Quantities" on page 24.
	46. Print reports.
	47. Verify that the MBBs and Audio cards contain the required information in the desired format.
	48. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.
	49. As a risk-reduction measure, archive the database and save to CD.
	50. Finalize the BOSS database for Tally.
	51. As a risk-reduction measure, archive the database and save to CD.
	52. Exit BOSS.

## Appendix L: BOSS Checklist for Using Imported Data to Create an Election

	<b>BOSS Operator Steps (Importing Data):</b>
	1. Double-click the BOSS desktop shortcut to open the application.
	2. Log in to BOSS as a user with all permissions.
	3. If you haven't already done so, set up BOSS users and permission levels.
	4. Create a BOSS database named "<Description # Election Type date>".
	5. Open the new BOSS database.
	6. Create or obtain import files and copy to C:\Boss\Import.
	7. Go to the <b>Election</b> menu, click <b>Import/Export</b> , and then click the <b>Import</b> tab.
	8. Begin importing ballot data.
	9. Respond to prompts confirming import processes.
	10. When importing the Party.txt file the <b>Records Already Exist for the Data Element</b> dialog window appears.
	11. Confirm import of the Precinct.txt data
	12. Proceed to update the registered voter data with the Party_Voters.txt import.
	13. When BOSS encounters large import files, the BOSS <b>FastLoad!</b> dialog window appears.
	14. <i>IF</i> invalid records are encountered, a dialog window informing the user of the error appears first.
	15. <i>IF</i> BOSS encounters invalid records, continue as if repairing the file.
	16. <i>IF</i> BOSS encounters invalid records, the <b>Invalid Record List</b> displays.
	17. <i>IF</i> correcting the source file, open the source file and correct the error.
	18. <i>IF</i> correcting the source file, select <b>(ALL)</b> and update existing data.
	19. Confirm import of corrected data.
	20. Complete ballot data imports.
	21. Select languages for the ballot, if applicable.
	22. Complete ballot instructions, if necessary.
	23. Define eSlate options.
	24. Define eScan options, if applicable.
	25. Select contest position force settings.
	26. Proofread the available ballot reports, and make corrections if necessary.
	27. (Optional) Prepare for ballot translation by proofreading the existing ballots.
	28. Create four folders on the PC Desktop for data import and export.
	29. Export text for multi-language ballot translation, if applicable. If your ballot is in English only, proceed to step 34.



### **BOSS Operator Steps (Importing Data):**

	30. Move the contents of the Export Text folder into the Jobs folder.
	31. Use TRANS to translate text for multi-language ballots.
	32. Move the text files (.xlf) from the Jobs folder to the Import Text folder.
	33. Import translated text for multi-language ballots.
	34. Export English text for recording in TRANS.
	35. Export audio prompts for multi-language audio recording in TRANS, if applicable.
	36. Move the contents of the Export Audio folder into the Jobs folder.
	37. Use TRANS to record English and, if applicable, multi-language audio.
	38. Move the recorded audio files (.xml and .wav) to the Import Audio folder.
	39. Import recorded audio files.
	40. Verify that the ballot is complete.
	41. As a risk-reduction measure, back up BOSS data and the database.
	41.1 Export all BOSS data files.
	41.2 Export all translated text and recorded audio.
	41.3 Archive the database and save to CD.
	42. Select templates and preview ballots.
	43. Proofread the ballot on the <b>Ballot Preview</b> tab.
	44. Generate the ballot, or go back to make corrections.
	45. If you haven't already done so, insert the eCM into a USB port and complete acceptance of ballot generation.
	46. Print Ballot Style reports.
	47. Create the Mobile Ballot Boxes (MBBs) for use in the JBCs, eScan devices, Ballot Now PCs, and SERVO, Audio cards for DAU eSlates, and/or Demo cards for eSlate Demonstration units.
	<b>See:</b> "Planning Ballot Media Quantities" on page 24.
	48. Print reports.
	49. Verify that the MBBs and Audio cards contain the required information in the desired format.
	50. If necessary, copy the database forward (naming it according to conventions), delete the defective version, make corrections in the new database, and repeat necessary steps.
	51. As a risk-reduction measure, archive the database and save to CD.
	52. Finalize the BOSS database for Tally.
	53. As a risk-reduction measure, archive the database and save to CD.
	54. Exit BOSS.



