Hart InterCivic, Election Solutions Group is committed to election integrity and customer satisfaction. All products, components, and services provided to our customer shall be safe, secure, and effective for their intended use, and they shall meet or exceed the quality and reliability levels expected by the marketplace.
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About This Book

Main Topics

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- Important terms to know on page 8.
- Environment for SERVO on page 8.
- Features of SERVO on page 9.

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Audit Logs on page 10.
- SERVO audit log on page 10.
- Backed-up devices audit logs on page 10.

Documentation Roadmap on page 11.

Overview

This manual describes how to use the SERVO™ software application, which is referred to as SERVO throughout this manual.

SERVO is an election records and recount management system for the eSlate™ Precinct Voting System (PVS), which is part of the Hart InterCivic, Election Solutions Group's eSlate™ Electronic Voting System.

SERVO uses the triple redundancy features of the eSlate™ Electronic Voting System to their fullest advantage. Election results are initially generated from the direct reading of voted MBBs into Tally. SERVO-generated recount data from the JBC and eSlate memories can also be used to compare against the MBB results, creating a distributed, closed-loop process that provides redundant cross verification of election results. This makes recounting of election results part of every election cycle, increasing system reliability and security.

SERVO is installed by Hart InterCivic personnel.
Important terms to know

Terms used in SERVO are explained in Table 1.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>Administrator</td>
<td>A SERVO user with ALL privileges.</td>
</tr>
<tr>
<td>Audit log</td>
<td>Information that allows election officials to reconstruct an election and verify the results without compromising ballot and voter secrecy.</td>
</tr>
<tr>
<td>CVR</td>
<td>Cast vote record. A record containing the votes cast by an individual voter on an eSlate.</td>
</tr>
<tr>
<td>DAU</td>
<td>Disabled Access Unit. An eSlate designed with access for the disabled.</td>
</tr>
<tr>
<td>device</td>
<td>A JBC or an eSlate from Hart InterCivic’s eSlate Precinct Voting System (PVS).</td>
</tr>
<tr>
<td>eSlate</td>
<td>The Hart InterCivic electronic voting unit that presents the ballot to the voting public and accepts their selections.</td>
</tr>
<tr>
<td>Event</td>
<td>A specific backup of a set of devices in SERVO. Each Event relates directly to either an Election, a TEST Election, or a demonstration Election.</td>
</tr>
<tr>
<td>JBC</td>
<td>Judge’s Booth Controller. The PVS controller unit for up to 12 eSlate/DAU units. The controller unit is used to generate access codes for the voter.</td>
</tr>
<tr>
<td>MBB</td>
<td>Mobile Ballot Box. The flash card stores ballot information for an Election. The JBC uses the MBB to send out ballot information to the eSlates. It records CVRs and audit logs. Voted MBBs are read into the Tally System.</td>
</tr>
<tr>
<td>PVS</td>
<td>Precinct Voting System. A set of one JBC connected to eSlate/DAU units.</td>
</tr>
<tr>
<td>SERVO audit log</td>
<td>Transactions that have taken place since SERVO was installed on the computer.</td>
</tr>
<tr>
<td>SERVO database</td>
<td>The database that stores the backup data to maintain an ongoing record of equipment use. The same database is used for each subsequent use of the equipment whether for Election, Test or Demonstration use.</td>
</tr>
<tr>
<td>Tally</td>
<td>eSlate Electronic Voting System tabulation software.</td>
</tr>
</tbody>
</table>

Environment for SERVO

A jurisdiction will have the option of using SERVO for each election in which PVS equipment is used. SERVO will typically be used prior to deployment of JBCs and eSlates, and at the conclusion of an election.

SERVO is intended to be used at a jurisdiction's warehouse, where all of the PVS devices are stored. A conveyor line will lead up to the PC running SERVO, where one PVS device after another will get attached to a parallel cable for processing.

Pre-Election

PVS devices will be added to the SERVO database and reset.

Resetting of the devices includes:

- erasing any cast vote records to achieve zero-public-count,
- erasing internal audit logs that may exist from a previous election or testing on each device,
- setting the clock on a JBC.
Post-Election

The bulk of the work within SERVO begins after an election has been carried out. SERVO is used to download CVRs and internal audit logs of each device, which constitutes a backup of the device's data. From the backed-up data:
- election recounts may be performed and tabulated via Tally,
- lost or damaged MBBs may be recovered, and
- several reports may be run against the data.

Features of SERVO

SERVO has the ability to automatically detect a connected device (JBCs and eSlates) in order to perform an action on that device.
SERVO creates a database of:
- the public serial numbers of PVS equipment maintained by a jurisdiction, and
- backups of CVRs and audit logs from eSlates and JBCs used in an election.

The primary purposes of the SERVO database are:
- to maintain on-going equipment history and
- to supply election records as required.

SERVO provides:
- reports on CVRs, audit logs, equipment used
- recount data that can be supplied to the eSlate™ Electronic Voting System’s Tally software application,
- ability to make recovery MBBs,
- ability to reset PVS devices to zero count for the next election, and
- ability to reset the JBC clock.

How this book is organized

Chapter 1 Getting Started — Describes how to log in to SERVO and connect PVS devices.
Chapter 2 Event Administration — Describes how to add an Event.
Chapter 3 Equipment Administration — Describes how to add a device, back up device data to an event, reset a device, and set the clock on the JBC.
Chapter 4 Election Recount — Describes how to create recount data from the backed-up data from either the JBCs or the eSlates used in a election in a format readable by Tally.
Chapter 5 MBB Recovery — Describes how to recover MBB data if an MBB is lost or damaged.
Chapter 6 Reports — Describes the reports available in SERVO.
Chapter 7 User Administration — Describes how the Administrator manages user names, passwords, and privileges.
Audit Logs

SERVO audit log
Each major user action in SERVO is saved to an internal audit log. The SERVO audit log specifies the user, type of action that took place, and date and time of the action. The audit log is not specific to an event. Actions saved are:
- Login
- Add event
- Add device
- Backup device
- Reset a device
- Set JBC clock
- JBC Recount
- eSlate Recount
- MBB recovery
- Report generation
(See SERVO Internal Audit Report on page 63.)

Backed-up devices audit logs
The internal audit logs backed-up from PVS devices contain information that will allow election officials to reconstruct an election and verify the results without compromising ballot and voter secrecy.
(See Device Audit Log (search) Report on page 51 and Device Audit Log Report on page 54.)
Documentation Roadmap

Manuals for the eSlate™ Electronic Voting System software and equipment from Hart InterCivic, Election Solutions Group include the following:

**eSlate™ SERVO™ Operations Manual (this book)**
This manual describes how to add PVS equipment public serial numbers to the SERVO database and backup election data from PVS equipment used during testing or during an election. Additional instructions are provided for creating recount data, creating recovery MBBS, and user administration. The SERVO reports are also described.

**eSlate™ Ballot Origination Software System™ Operations Manual**
This manual describes how to use the Ballot Origination Software System™ software application, referred to as BOSS, to create an Election database from which you can create MBBS (Mobile Ballot Box™) for use with the eSlate Electronic Voting System Judge’s Booth Controller™ (JBC) and eSlate™ 3000 and DAU 5000™ voting units in a polling place, and with Ballot Now™ to handle paper ballots.

**eSlate™ Precinct Voting System Election Day Manual**
This manual describes how to set up and use the eSlate™ Precinct Voting System (PVS) equipment in a polling place on Election Day.

**eSlate™ Precinct Voting System Early Voting Manual**
This manual describes how to set up and use the PVS equipment in Early Voting polling places.

**eSlate™ Precinct Voting System DAU 5000™ Voting Unit Setup Manual**
This manual describes how to set up and use the DAU 5000™ voting units.

**eSlate™ Tally™ System Operations Manual**
This manual describes how to use the Tally™ application software to read and tally the votes on MBBS that were used during an election.

**Ballot Now™ Operations Manual**
This manual describes how to manage paper ballots for an election created from the eSlate Electronic Voting System.

**eSlate™ Electronic Voting System Product Description**
This manual describes how the various software and equipment components of the eSlate Electronic Voting System are used to run an election.

**eSlate™ BOSS Administrative Databases Operations Manual**
This manual describes how to use BOSS to create administrative databases for general elections and for primary elections, which can then be copied and customized to create an election-specific database during preparation for an election.
Chapter 1

Getting Started

Main Topics

Overview, this page.
- Pre-election tasks, this page.
- Post-election tasks on page 14.

Equipment Needed on page 14.
- Device connections on page 15.

Starting the SERVO Application on page 16.

Overview

The SERVO application is password protected, which means a User ID and password are required to open SERVO.

The intended user of SERVO needs a solid working knowledge of how to:

- use a Windows PC,
- attach and detach cables to a PC, a JBC, and an eSlate, and
- insert an MBB into the PC-card drive.

In addition, good organizational skills are desired in order to establish a warehouse workflow.

Pre-election tasks

The overall process of using SERVO to prepare the JBCs and eSlates for use in an Election is quite simple.

JBC preparation

JBCs must be reset prior to deploying to polling places.

One at a time, a JBC is connected to the SERVO PC and to a power outlet. The public serial number of the JBC is added to the SERVO database if it does not currently exist in the database. The JBC is reset.

Then the JBC is ready to send out to the polling places.
eSlate preparation

eSlates must be reset prior to deploying to polling places.
With a JBC connected to the SERVO PC, one at a time an eSlate is connected to that JBC with a
JBC-to-Booth cable. The public serial number of the eSlate is added to the SERVO database if it does
not currently exist in the database. The eSlate is reset.
Then the eSlate is ready to send out to the polling places.
NOTE: The same JBC can be used to reset all eSlates in the inventory.

Post-election tasks

After an Election the devices (JBCs and eSlates) are brought back to the warehouse and backed-up into
an Event. The Event could have been created prior to equipment deployment, or at the moment that
the backup process begins.
NOTE: A single Event is used for the backup of the Election (or Test).

JBC backup

The user selects an Event for the backup, then one at a time, a JBC is connected to the SERVO PC and
to a power outlet. The public serial number of the JBC is added to the SERVO database if it does not
currently exist in the database. The CVRs and internal audit log in the JBC are added to the SERVO
database.

eSlate backup

With a JBC connected to the SERVO PC, one at a time an eSlate is connected to that JBC with a
JBC-to-Booth cable. The public serial number of the eSlate is added to the SERVO database if it does
not currently exist in the database. The CVRs and internal audit log in the eSlate are added to the
SERVO database.

Recount MBBs

For recount MBBs, a blank MBB is used.

Recovery MBBs

For recovery MBBs, a blank (unvoted) BOSS MBB from the Election is used.

Equipment Needed

In addition to the SERVO PC and the JBCs and eSlates, you will need:
• 1 parallel cable
• 1 JBC-to-Booth cable
• 1 JBC power cord
• 1 BOSS MBB from the Election (or Test)
Device connections

Connections to the SERVO PC are illustrated in Figure 1-1.

![Diagram of device connections]

**JBC connection**

SERVO connects to a JBC through an available/dedicated standard EPP parallel port on the PC. This connection allows SERVO to communicate with an eSlate connected to a JBC.

- A parallel cable is plugged into the SERVO PC’s parallel port and into the JBC’s printer port.
- The JBC is connected to a power outlet.

**eSlate connection**

A JBC that is connected to the SERVO PC with the parallel port cable is required to communicate with an eSlate.

- The eSlate is connected to the JBC with a JBC-to-Booth cable.
- Only one eSlate at a time should ever be attached to a JBC.
- If the JBC has already been backed-up for a given Event, SERVO will back up the eSlate connected to the JBC.
Starting the SERVO Application

A User ID and password are required to start the SERVO application. If you do not know your User ID and/or password, contact your System Administrator.

It is recommended that the user currently logged in:

− stay at the computer while running the SERVO application
− exit the SERVO application if they step away from the system

Steps for: SERVO Logon

✓ To start the SERVO application:
1. Click Start, the Start button on the Windows task bar.
2. From the Start menu, choose Programs->Hart InterCivic->Servo.
   The Hart InterCivic - SERVO window appears with the SERVO Login window in the foreground (see Figure 1-3).
3. In the User Name field, type your user ID.
4. In the Password field, type your password.
   Click .
   The SERVO login window closes and the menus available to the user appear enabled in the Hart InterCivic - SERVO window.

NOTE: The actions a user can perform within SERVO are dependent upon the permission level set by the Administrator.

Notes about log in

✓ If you enter an invalid User Name and/or invalid password, the error message shown in Figure 1-4 appears.
1. Click in the error message dialog box.
2. In the SERVO Login window, enter a valid User Name and a valid password.
3. Click in the SERVO Login window.
Overview

Events are used to organize a specific backup of a set of devices in SERVO after voting has occurred. You can think of an Event as equal to some form of an Election. A unique Event is defined for each:

- Test of an Election
- Election
- Demonstration

Events are managed with the commands in the Event menu (see Figure 2-1).

In order to define an Event, you will:

- use an MBB from the Election to add the ballot format information to the SERVO database and
- give the Event a unique name.
Defining an Event

Each time you need to connect devices to the SERVO PC for backing up the Election data on the devices, you will create a new Event.

Before equipment used in an Election can be backed up, an Event must be created using the Add command in the Event menu (see Figure 2-2). Possible events might include Election, Test, or Demonstration.

- Each Event must be given a unique name. It is recommended that the name you give to the Event closely represents the title of the election. For example, Events might be named:
  - 2002 Primary Training DEMO
  - 2002 Primary TEST
  - 2002 Primary Election

- An MBB from the Election, Test, or Demonstration is required to create the Event. It is the Election MBB that contains the ballot format for the Election, Test, or Demonstration (that is, the contest and option titles, precinct titles, and so forth). The MBB provides the basis for generating SERVO reports, recount MBBs, and recovery MBBs.

There are one of two ways in which events may be added to SERVO:

- The first is through the Add Event window. In the Add Event window, you can simply enter a unique name for the Event and insert the Election MBB into the PC-card drive.

- The other is through the Backup Device dialog, which automatically forces you to create an Event, if no Events exist in the SERVO database (see Backing Up a Device on page 24).
Steps for: Adding an Event

In order to add an Event, the user must have Event Administration privileges. Privileges for a user are defined by the Administrator.

To add an Event:
1. Insert the MBB for the Election into the PC-card drive.
2. From the Event menu, select Add (see Figure 2-2), OR — click the Add Event tool.

The Add Event window appears (see Figure 2-4).

3. In the Description field, type the name of the Event (see Figure 2-5).

4. Click .

You will know the Event has been created in the SERVO database when the Add Event window closes.

Notes about adding an Event

✓ If the MBB for the Event has not been inserted into the PC-card drive, the message shown in Figure 2-6 appears.
   1. Insert the MBB for the Event into the PC-card drive.
   2. Click to close the dialog box.

The Event is created in the SERVO database.

✓ If the name you typed for the Event in the Description field of the Add Event window has already been used as the name of an Event in the SERVO database, the message shown in Figure 2-7 appears.
   1. Click to close the dialog box.
   2. In the Description field of the Add Event window, type a unique name for the Event.
   3. Click in the Add Event window.

The Event is created in the SERVO database.
Closing an Event

NOT IMPLEMENTED.

Assigning Devices to an Event

NOT IMPLEMENTED.

Archiving Events

NOT IMPLEMENTED.
Chapter 3

Equipment Administration

Main Topics

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<td>• Post-Election on page 22.</td>
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<tbody>
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</tr>
</tbody>
</table>

Overview

You will use the Device menu (see Figure 3-1) to interact with the JBCs and eSlates in the inventory before and after an Election. The equipment management tasks include:

◆ adding a device's public serial number to the SERVO database and

◆ resetting a device.

The Recount MBB and Recovery MBB commands on the Device menu are described in Chapters 4 and 5, respectively.

Figure 3-1 Device menu.
Pre-Election

Prior to an Election, Test Election, or Demonstration, PVS devices will be added to the SERVO database and reset (see Adding a Device on page 22).

Resetting of the devices includes:
- erasing any cast vote records to achieve to zero count,
- erasing internal audit logs that may exist from a previous election or testing on each device, and
- setting the clock on a JBC.

Post-Election

After an Election, Test Election, or Demonstration, the CVR5 and internal audit logs of each device will be backed up to the SERVO database.

From the backup data:
- election recounts may be performed and tabulated via Tally (see Chapter 4 Election Recount),
- lost or damaged MBBs may be recovered (see Chapter 5 MBB Recovery), and
- several reports may be run against the data (see Chapter 6 Reports).

Adding a Device

During the process of adding devices to the SERVO database, you will attach a JBC to the parallel cable connected to the PC's parallel port, then subsequently connect an eSlate to that JBC with a JBC-to-Booth cable.

You will use the Add command in the Device menu to add each device's public serial number to the SERVO database (see Figure 3-2).

NOTE: This function does not add the device to any particular Event.

When you add a device the following information is stored in the SERVO database:
- Device type, either JBC or eSlate. SERVO cannot distinguish between an eSlate and a DAU
- Public serial number of the device
- Firmware revision of the serial number
Steps for: Adding a device

In order to add a device to the SERVO database, the user must have Equipment Administration privileges. Privileges for a user are defined by the Administrator.

To add a device:

1. From the Device menu, select Add (see Figure 3-2 on page 22),
   OR — click , the Add Device tool.

   The Add Device window appears with the message
   waiting for device... displayed in the bottom left side of
   the window (see Figure 3-3).

2. Connect the parallel cable to the SERVO PC.  
3. Connect a JBC to power. 
4. Connect the JBC to the parallel port cable. 
   - The public serial number of the JBC appears in the 
     Add Device window (see Figure 3-4). This indicates 
     that SERVO has added the device information to the 
     SERVO database. 
   - The message waiting for device... displays in the 
     bottom left side of the window (see Figure 3-4).

5. If you have eSlates to add, use a JBC-to-Booth cable to connect the JBC to an eSlate.  
6. When the device’s public serial number appears in the Add Device window, you can: 
   - Disconnect the eSlate from the JBC and connect another eSlate. 
   - OR- 
   - Disconnect the JBC from the parallel port cable and from power, then connect another JBC to power and the parallel port cable.

7. When you are finished adding devices, click .

---

Chapter 3 Equipment Administration 23
Back Up a Device

The CVRs and audit logs contained in JBCs and eSlates used for an Election, Test, or Demonstration can be backed up into the SERVO database by connecting each device to the SERVO PC.

The purpose of backing up a device is two-fold:

- Store a copy of the data in the device in the SERVO database.
- Allow the device to be reset (or cleared) for use in another election.

You will use the Backup command in the Device menu to back up a device (see Figure 3-5).

NOTE: This function requires that you select (or create) an Event, then check/uncheck the Reset Device check box and/or check/uncheck Set Clock check box BEFORE you connect the device you want to back up.

When you back up a device:

- You must associate the device with an Event.
- If the Event does not yet exist, you will be prompted to add one, along with the MBB associated with that Event.
- If the device has not previously been added to the SERVO database, the backup device function will automatically add it to the SERVO database.
- All cast vote records from the device will be retrieved.
- The number of CVRs from the device will be displayed in the Backup Device window.
- All internal audit log records will be retrieved.
- The number of audit log entries from the device will be displayed in the Backup Device window.
- A device with zero CVRs will be backed up in the same manner as other devices.
- When backup is complete, a "ding" will be heard if the PC has a sound system enabled.

Optional resetting of a device during backup

The Backup Device window has check boxes for resetting the device once the backup is complete and verified.

- When checked, the Reset Device check box clears the CVRs and audit log entries from the device.
- When checked, the Set Clock check box sets the internal clock of the JBC device to match the clock on the SERVO PC.

If you do not want to perform backup and reset at the same time, the reset functions can be performed at a later date (see Resetting a Device on page 27).
**Steps for: Backing up a device**

You will use the **Backup Device** window to back up a device.

**When you back up a device:**
- Choose an Event to store the backed-up data.
- If the Event does not yet exist, you will be prompted to add one, along with the MBB associated with that Event.
- Check the **Reset Device** check box and/or **Set Clock** check box if you want to reset the internal clock of the JBC device to match the clock on the SERVO PC after the backup completes.
- Connect one device at a time to back up (and reset if desired). SERVO automatically detects a connected device, backs it up (and resets it if desired).
- The **Backup Device** window displays the device’s public serial number, number of CVRs, and number of audit log entries.

**To back up a device**

1. From the **Device** menu, select **Backup** (see Figure 3-5),
   - OR – click , the **Backup Device** tool.

   The **Backup Device** window appears with the message *waiting for device...* displayed in the bottom left side of the window (see Figure 3-6).

2. From the **Event** list box, select the Event that matches the Election data in the device (see Figure 3-7).

3. If you want to erase any cast vote records and internal audit logs that may exist from a previous election or testing on the device after the backup completes, check the **Reset Device** check box.

4. If you want to set the internal clock of the JBC device to match the clock on the SERVO PC after the backup completes, check the **Set Clock** check box.

5. Connect the parallel cable to the SERVO PC.

6. Connect a JBC to the parallel port cable.

   SERVO adds the device information to the selected Event in the SERVO database.
7 You will know the backup of the device is complete when:
   • You hear a "ding" (if the PC has a sound system enabled).
   • The serial number of the device appears in the Serial Number field.
   • The number of CVRs appears in the Cast Vote Records field.
   • The number of audit log entries appears in the Audit Log Entries field.
   • The message waiting for device... displays in the bottom left side of the window (see Figure 3-8).

8 If you have eSlates to back up from the same Event, use a JBC-to-Booth cable to connect the JBC to an eSlate.
   SERVO backs up the eSlate using the Event selected in the Backup Device window and the reset settings.
9 If you have other JBCs to back up from the same Event, disconnect the connected JBC from the parallel port cable and connect the next JBC to the parallel port cable.
10 When you are finished backing up devices, click Close.

Notes about backing up a device

✓ If no Events have been defined to SERVO when you select Backup from the Device menu or click the Backup Device tool, you will be prompted to add one, along with inserting an MBB to be associated with the Event (see Adding an Event on page 19).

✓ Devices should be detected automatically.
   If an attached device does not exist in the database, it will be added automatically. Once a device record exists for an attached device, the device's CVRs and internal audit log information will be downloaded and automatically associated with the selected Event.

✓ Multiple devices may be added by simply continuing to connect each device to the parallel port.
   This functionality is intended for volume operation. SERVO will prevent the same device from being backed up more than once for a given Event.

✓ The Serial Number list box shows a history of the devices that have been backed up for the current session with the Backup Device window.
Reseting a Device

You will use the **Reset** command on the **Device** menu to:

- erase any CVRs and internal audit logs that may exist on a device from a previous election or testing, and/or
- set the internal clock of a JBC device to match the clock on the SERVO PC.

**NOTE:** The **Backup Device** window of SERVO also provides an automated way of resetting a device, if desired (see **Backing up a device** on page 25).

**Steps for:** Reseting a device

1. From the **Device** menu, select **Reset** (see Figure 3-9). The **Device Reset** window appears with the message **waiting for device...** displayed in the bottom left side of the window (see Figure 3-10).
2. If you want to erase any CVRs and internal audit logs that may exist from a previous election or testing on the device, check the **Erase CVRs and Audit Log** check box.
3. If you want to set the internal clock of the JBC device to match the clock on the SERVO PC, check the **Reset JBC Clock** check box.
4. Connect the parallel cable to the SERVO PC.
5. Connect a JBC to power.
6. Connect the JBC to the parallel port cable.
   - The serial number of the device displays in the **Device Serial Number** field.
   - The CVRs and internal audit logs are erased if the **Erase CVRs and Audit Log** check box is checked.
   - If a JBC is being reset, the internal clock of the JBC device is reset to match the clock on the SERVO PC, if the **Reset JBC Clock** check box is checked.
7. You will know the reset of the device is complete when:
   - You hear a "ding!" (if the PC has a sound system enabled).
8. If you have eSlates to reset, use a JBC-to-Booth cable to connect the JBC to an eSlate. SERVO erases any CVRs and internal audit logs from the eSlate if the **Erase CVRs and Audit Log** check box is checked.
9. If you have other JBCs to reset, disconnect the connected JBC from the parallel port cable and from power, then connect the next JBC to power and to the parallel port cable.
10. When you are finished resetting devices, click **Finish**.
Importing an Equipment List

You can import a list of JBC and eSlate public serial numbers into the SERVO database. The format for the import file is described in Chapter 9 of the eSlate™ Ballot Origination Software System™ Operations Manual.

To import tab-delimited data for equipment list definitions into the SERVO database:

1. From the File menu, select Import Equipment List (see Figure 3-11). The Open window appears (see Figure 3-12).

2. Navigate to the location of the equipment import file. This file will have a .txt filename extension in its filename.

3. Select Text Files (*.TXT) in the Files of type: list box of the Open window to display available .txt files.

4. Click the .txt filename you want to import so that it appears in the File name: field of the Open window (see Figure 3-12).

5. Click [Import].

Removing a Device

NOT IMPLEMENTED.

Checking Equipment State

NOT IMPLEMENTED.

Defining the Equipment Port

NOT IMPLEMENTED.
SERVO

Chapter 4

Election Recount

Main Topics

<table>
<thead>
<tr>
<th>Overview, this page.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a JBC-Derived Recount MBB for an Event on page 30.</td>
</tr>
<tr>
<td>Creating an eSlate-Derived Recount MBB for an Event on page 31.</td>
</tr>
<tr>
<td>Notes about creating a recount MBB on page 32.</td>
</tr>
</tbody>
</table>

Overview

SERVO can create recount data in a format readable by Tally. The MBB is created from either the JBCs' or the eSlates' backup data contained in a SERVO Event. Recount data can be produced for either:

- Early Voting
- Election Day voting.

For either type of voting, you can create either:

- A recount MBB from all the CVRs from all the JBCs for an Event.
- A recount MBB from all the CVRs from all the eSlates for an Event.
Creating a JBC-Derived Recount MBB for an Event

A recount MBB can be created from JBC vote records stored in an Event. The process collects all of the CVRs of every JBC backed-up for a given Event and lets you create an MBB with these votes. The MBB can then be read by the Tally System and compared with election results.

You will use the Recount MBB command in the Device menu to create a recount MBB from JBC vote records stored in an Event (see Figure 4-1).

- You will need a blank MBB.

Steps for: Creating a JBC-derived recount MBB for an Event

1. From the Device menu, select Recount MBB (see Figure 4-1).
2. From the Event list box, select the Event you want to recount.
3. From the Device list box, select JBC.
4. If you want to perform a recount for Early Voting, select the Early Election option, OR
   If you want to perform a recount for Election Day, select the Election Day option.
5. Label a blank MBB with RECOUNT DEVICE_TYPE EVENT_NAME ELECTION_TYPE.
   For example, RECOUNT JBCs November 2002 Early.
6. Insert the labeled, blank MBB into the PC-card drive.
7. Click [ ].
   A Progress window appears while SERVO writes the recount information to the MBB.
8. You will know the writing process is finished when the Progress window closes.
9. Remove the MBB from the PC-card drive and use it in the Tally System to verify vote counts.
Creating an eSlate-Derived Recount MBB for an Event

A recount MBB can be created from eSlate vote records stored in an Event. The process collects all of the CVRs of every eSlate backed-up for a given Event and lets you create an MBB with these votes. The MBB can then be read by the Tally System and compared with election results.

Cast vote record information can also be printed out for manual recount purposes (see Chapter 6 Reports).

You will use the Recount MBB command in the Device menu to create a recount MBB from eSlate vote records stored in an Event (see Figure 4-3).

- You will need a blank MBB.

Steps for: Creating an eSlate-derived recount MBB for an Event

✓ To create a recount MBB from eSlate vote records stored in an Event:
  1. From the Device menu, select Recount MBB (see Figure 4-3).
     The Device Reset window appears (see Figure 4-4).
  2. From the Event list box, select the Event you want to recount.

- From the Device list box, select eSlate.

  4. If you want to perform a recount for Early Voting, select the Early Election option, OR
     If you want to perform a recount for Election Day, select the Election Day option.
  5. Label a blank MBB with RECOUNT DEVICE_TYPE EVENT_NAME ELECTION_TYPE.
     For example, RECOUNT eSlate November 2002 Early.
  6. Insert the labeled, blank MBB into the PC-card drive.
  7. Click execute.
     A Progress window appears while SERVO writes the recount information to the MBB.
  8. You will know the writing process is finished when the Progress window closes.
  9. Remove the MBB from the PC-card drive and use it in the Tally System to verify vote counts.
Notes about creating a recount MBB

✓ If you did not insert a blank MBB into the PC-card drive before you clicked [ ] in the Device Reset window, the message shown in Figure 4-5 appears.

1 Insert the MBB into the PC-card drive.
2 Click [ ] to close the dialog box.
The recount MBB is created.

Figure 4-5 MBB required dialog box.
Chapter 5

MBB Recovery

Main Topics

Overview, this page.
Creating a Recovery MBB on page 34.

Overview

SERVO can recreate an MBB that has been lost or damaged. The MBB is recreated from the backup of the JBC that contained that MBB.

- In order to create a recovery MBB from the SERVO database, the JBC that contained the MBB must already be backed up in an Event in the SERVO database.

To create a recovery MBB from the SERVO database, you will be required to:

- Choose either the serial number of the missing MBB or the serial number of the JBC that contained that MBB.
- Insert one of the extra, non-voted MBBs created in BOSS for the Election into the Servo PC's card reader.

The CVRs and audit log information of the JBC are written to the recovery MBB, which may then be read by the Tally System for tabulation.
Creating a Recovery MBB

A recovery MBB can be created from JBC vote records stored in an Event. The process writes the CVRs of a JBC to an MBB, one JBC's CVRs per MBB. The MBB can then be read by the Tally System and compared with election results.

You will use the Recovery MBB command in the Device menu to create a recovery MBB from JBC vote records stored in an Event (see Figure 5-1).

- You will need an Election MBB created in BOSS that has not been previously used for voting.
- You will need to know the public serial number of the JBC you want to recover, or the ID of the MBB you want to recover.

Steps for: Creating a Recovery MBB

✓ To create a recovery MBB from a JBC's vote records stored in an Event:

1. From the Device menu, select Recovery MBB (see Figure 5-1),
   The Recovery MBB Generation window appears (see Figure 5-2).

2. From the Event list box, select the Event that contains the JBC vote records you want to use.
3. If you want to create a recovery MBB for Early Voting, select the Early Voting option, OR
   If you want to create a recovery MBB for Election Day, select the Election Day option.
4 When the list of IDs for the option selected in Step 3 appears in the Recovery MBB Generation window you can:
   • Leave the Show MBB ID check box unchecked to show the list of JBC public serial numbers stored in the Event.
   OR
   • Click the Show MBB ID check box to place a check mark in it to show the list of MBB IDs stored in the Event.
5 Select the desired ID from the list.
6 Click the Use user provided MBB for header Information check box to place a check mark in it.
   • When this check box is checked, SERVO will read the unvoted BOSS MBB and re-use all of the MBB's header specific information.
   • When not checked, the recovery MBB may not work with the Tally System.
7 Label an unvoted BOSS MBB from the Election with RECOVERY EVENT_NAME DEVICE_TYPE DEVICE_ID ELECTION_TYPE.
   For example, RECOVERY November 2002 MBB 1012483794 Early Voting.
8 Insert the labeled MBB into the PC-card drive.
9 Click .
   A Progress window appears while SERVO writes the recovery information to the MBB.
10 You will know the writing process is finished when the Progress window closes.
11 Remove the MBB from the PC-card drive and use it in the Tally System to verify vote counts.
From Black Box Voting Document Archives

Creating a Recovery MBB
Overview

In a report window you can page through the report to view it on the screen, or you can send a copy of the report to the system printer by clicking the Print tool at the top of the report window. Reports are output to 8½" x 11" paper.

The Reports menu (see Figure 6-1) contains the list of SERVO reports.

You can use these reports to review information in the SERVO database.
Headers printed on reports

The information that appears at the top of each page of a report is described in Table 6-1.

<table>
<thead>
<tr>
<th>Table 6-1</th>
<th>Heading information at the top of each page of a report.</th>
</tr>
</thead>
<tbody>
<tr>
<td>report name</td>
<td>The name of the report.</td>
</tr>
<tr>
<td>date</td>
<td>The date the report was printed.</td>
</tr>
</tbody>
</table>

Footers printed on reports

The information that appears at the bottom of each page of a report is described in Table 6-2.

<table>
<thead>
<tr>
<th>Table 6-2</th>
<th>Footer information at the bottom of each page of a report.</th>
</tr>
</thead>
<tbody>
<tr>
<td>page number</td>
<td>Shows the current page number and the total number of pages in the report.</td>
</tr>
</tbody>
</table>

Steps for: Viewing a report window

1. To view a report:
   1. From the Reports menu, select the report you want to view.
   2. A selection may window appear.
   2. If a selection window appears, select the options you want to apply to the report, then click on the selection window.
   3. When the report's window appears, use the page navigation tools at the top of a report window to view different pages in a report. These tools are described in Table 6-3.

<table>
<thead>
<tr>
<th>Table 6-3</th>
<th>Page navigation and display tools in a report window.</th>
</tr>
</thead>
<tbody>
<tr>
<td>first page</td>
<td>Shows the first page of the report.</td>
</tr>
<tr>
<td>last page</td>
<td>Shows the last page of the report.</td>
</tr>
<tr>
<td>next page</td>
<td>Shows the next page of the report.</td>
</tr>
<tr>
<td>previous page</td>
<td>Shows the previous page of the report.</td>
</tr>
<tr>
<td>stop loading</td>
<td>Cancels the remainder of the report.</td>
</tr>
<tr>
<td>refresh report</td>
<td>Refreshes the display of the report.</td>
</tr>
<tr>
<td>search report</td>
<td>Opens the Search window, from which you can define a search string (see Searching in a report on page 38).</td>
</tr>
</tbody>
</table>

Steps for: Searching in a report

1. To search for a particular text string in a report:
1. From the Reports menu, select the report you want to view.

2. Click at the top of the report window. The Search window appears (see Figure 6-2).

3. In the Find what field, type the text string you want to search for.

4. Click . A red rectangle appears around the first instance of the text string in the report (see Figure 6-3).

5. Click in the Search window to find the next occurrence of the text string.

6. Click to close the Search window.

Steps for: Printing a report

A SERVO report will always print to the system printer.

✔ To send a copy of the report to the system printer:

Printing a report
1 From the Reports menu, select the report you want to print.

2 Click \( \text{Print} \) at the top of the report window. The Print window appears (see Figure 6-4).

3 In the Print Range panel of the Print window, set the pages you want to print.

4 In the Copies panel of the Print window, set the number of copies you want to print.
   - If you send more than 1 copy, you can place a check mark in the Collate Copies check box to have the copies of the report collated into sets.

5 Click \( \text{Print} \) in the Print window. The report is sent to the system printer.

---

**Steps for: Exporting a report**

SERVO reports can be exported as several different file types. The file type available are listed in the Format list box of the Export window.

The export files can be saved to disk or sent to an open Windows software application. The destinations for the export file are listed in the Destination list box of the Export window.

✔ To export a report:
   1 From the Reports menu, select the report you want to export.
   2 Click \( \text{Export} \) at the top of the report window. The Export window appears (see Figure 6-4).
   3 From the Format list box, select the format for the exported file.
   4 From the Destination list box, select the destination for the exported file.
   5 Click \( \text{Export} \).

---

**Steps for: Closing a report window**

✔ To close the report window:
   - Click \( \text{Close} \) at the top-right of the report window.
Equipment List Report

The Equipment List report lists all of the eSlate and JBC devices that have been added to the SERVO database. For each device, it lists the device type (eSlate or JBC), public serial number of the device, internal device ID, firmware version level in the device, and the most recent date and time the device was added to the SERVO database.

Information in the Equipment List report

The report format is two columns of listings per page.

- The sort order for the Equipment List report is device public serial number. eSlates are listed first, followed by JBCs.

The Equipment List report contains the information listed in Table 6-4.

Table 6-4 Equipment List report sections.

<table>
<thead>
<tr>
<th>Header</th>
<th>Standard header described in Headers printed on reports on page 38.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device column</td>
<td>Lists the type of device in the SERVO database:</td>
</tr>
<tr>
<td></td>
<td>- eSlate</td>
</tr>
<tr>
<td></td>
<td>- JBC</td>
</tr>
<tr>
<td>Serial# column</td>
<td>Lists the public serial number of the device:</td>
</tr>
<tr>
<td>ID column</td>
<td>Lists an internal device ID.</td>
</tr>
<tr>
<td>Revision column</td>
<td>Lists the firmware version level of the device.</td>
</tr>
<tr>
<td>Service Date column</td>
<td>Lists the most recent date and time the device was added to the SERVO database.</td>
</tr>
<tr>
<td>Footer</td>
<td>Standard footer described in Footers printed on reports on page 38.</td>
</tr>
</tbody>
</table>

Steps for: Opening the report

✔ To open the Equipment List Report window:
- From the Reports menu, select Equipment List (see Figure 6-6).
  The Equipment List Report window appears (see Figure 6-7 on page 42).
Example of the Equipment List Report window

An example of the Equipment List Report window is shown in Figure 6-7.

![Equipment List Report window](image)

**Figure 6-7 Equipment List Report window.**

Example of the Equipment List report

Please see Appendix A for an example printout of the Equipment List report.
Backed Up Devices Report

The Backed Up Devices report lists all of the eSlate and JBC devices that have been backed up for a given Event. For each device, it lists the device type (eSlate or JBC), public serial number of the device, the number of CVRs recorded, the number of audit log entries in the device's audit log, internal device ID, and the polling place ID that used the device. The total number of CVRs recorded in eSlates and total number of CVRs recorded in JBCs appear at the end of their respective listings.

Before you can view the report you must select:

- An Event
- Early or Election

Information in the Backed Up Devices report

The report format is two columns of listings per page.

- The primary sort order for the Backed Up Devices report is device type. eSlates are listed first, followed by JBCs.
- The secondary sort order for the Backed Up Devices report is device public serial number.

The Backed Up Devices report contains the information listed in Table 6.5.

<table>
<thead>
<tr>
<th>Table 6-5 Backed Up Devices report sections.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
</tr>
<tr>
<td>Event name</td>
</tr>
<tr>
<td>Device column</td>
</tr>
<tr>
<td>Serial# column</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>CVR column</td>
</tr>
<tr>
<td>Audit column</td>
</tr>
<tr>
<td>ID column</td>
</tr>
<tr>
<td>Polling Place column</td>
</tr>
<tr>
<td>totals</td>
</tr>
<tr>
<td>Footer</td>
</tr>
</tbody>
</table>
Steps for: Opening the report

To open the Backed Up Devices window:

1. From the Reports menu, select Devices Backed Up (see Figure 6-8).
   The Backed Up Devices window appears (see Figure 6-9).
2. From the Event list box, select the Event to use in the report.
3. In the Backed Up Devices window, select an election type option:
   • Early Election – Sets the report to Early Voting.
   • Election Day – Sets the report to Election Day voting.

4. Click .
   The Backed Up Devices Report window appears (see Figure 6-10 on page 45).
Example of the Backed Up Devices Report window

An example of the Backed Up Devices Report window is shown in Figure 6-10.

![Backed Up Devices Report window](image)

Figure 6-10 Backed Up Devices Report window.

Example of the Backed Up Devices report

Please see Appendix A for an example printout of the Backed Up Devices report.

Opening the report
Device Connectivity Reports

Two types of Device Connectivity reports are available:

- The JBC Connectivity report
- The eSlate Connectivity report

The reports are useful when determining which devices have not been backed up, and to verify that the number of eSlate votes match the number of JBC votes.

Each report lists the devices that were connected to one another for a given Event. Either of the Device Connectivity reports can track down where hardware has been - in some cases showing how eSlates may have been connected to more than one JBC.

Before you can view either report you must select:

- An Event
- The device type: JBC or eSlate
- Early or Election

Information in the JBC Connectivity report

The report format is two columns of listings per page.

- The primary sort order for the JBC Connectivity report is JBC public serial number.
- The secondary sort order for the JBC Connectivity report is eSlate public serial number.

The JBC Connectivity report contains the information listed in Table 6-6.

<table>
<thead>
<tr>
<th>header</th>
<th>Standard header described in Headers printed on reports on page 38.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event name</td>
<td>Name of the Event included in the report.</td>
</tr>
<tr>
<td>JBC public serial number</td>
<td>Lists the public serial number of the JBC for the Event.</td>
</tr>
<tr>
<td>polling place</td>
<td>Lists the name of the polling place used with the JBC for the Event.</td>
</tr>
<tr>
<td>Votes</td>
<td>Lists the number of total CVRs in the JBC for the Event.</td>
</tr>
<tr>
<td>eSlate public serial number</td>
<td>Lists the public serial numbers of the eSlates connected to the JBC for the Event.</td>
</tr>
<tr>
<td>eSlate backup status</td>
<td>Lists the backup status of the eSlate for the Event:</td>
</tr>
<tr>
<td>- Missing - Indicates that the eSlate has not yet been backed up.</td>
<td></td>
</tr>
<tr>
<td>- Backed Up - Indicates that the eSlate has been backed up.</td>
<td></td>
</tr>
<tr>
<td>eSlate votes</td>
<td>Lists the number of CVRs retrieved from the eSlate for the Event.</td>
</tr>
<tr>
<td>totals</td>
<td>Lists (in bold type) the total number of CVRs retrieved from the eSlates connected to the JBC for the Event.</td>
</tr>
<tr>
<td></td>
<td>NOTE: If an eSlate was used with more than one JBC during the Event, this total does will not be equal to the total CVRs listed for the JBC in the Event (Votes total). The eSlate Connectivity report will show this condition (look for single-spaced duplicate eSlate entries on the eSlate Connectivity report).</td>
</tr>
<tr>
<td>Footer</td>
<td>Standard footer described in Footers printed on reports on page 38.</td>
</tr>
</tbody>
</table>

Table 6-6 JBC Connectivity report sections.
Information in the eSlate Connectivity report

NOTE: If an eSlate was used with more than one JBC during the Event, its public serial number appears as single-spaced duplicate eSlate entries on the eSlate Connectivity report.

The report format is two columns of listings per page.

- The sort order for the eSlate Connectivity report is eSlate public serial number.

The JBC Connectivity report contains the information listed in Table 6-6.

<table>
<thead>
<tr>
<th>Table 6-7: JBC Connectivity report sections.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Header</strong></td>
</tr>
<tr>
<td><strong>Event name</strong></td>
</tr>
<tr>
<td><strong>eSlate column</strong></td>
</tr>
<tr>
<td><strong>JBC column</strong></td>
</tr>
<tr>
<td><strong>Polling Place column</strong></td>
</tr>
</tbody>
</table>
| **eSlate backup status** | Lists the backup status of the eSlate for the Event:  
  - Missing – Indicates that the eSlate has not yet been backed up.  
  - Backed Up -- Indicates that the eSlate has been backed up. |
| **Footer** | Standard footer described in Footers printed on reports on page 38. |
Steps for: Opening the report

1. From the Reports menu, select Device Connectivity (see Figure 6-11).
   The Device Connectivity window appears (see Figure 6-12).
   1. From the Event list box, select the Event to use in the report.

2. From the Device list box, select a device type:
   • JBC - generates a JBC Connectivity report.
   • eSlate - generates an eSlate Connectivity report.

3. Select an election type option:
   • Early Election - Sets the report to Early Voting.
   • Election Day - Sets the report to Election Day voting.

4. Click [OK].

The JBC Connectivity report window (see Figure 6-13 on page 49) or the eSlate Connectivity report window (see Figure 6-14 on page 50) appears.
Example of the JBC Connectivity report window

An example of the JBC Connectivity report window is shown in Figure 6-13.

![Figure 6-13 JBC Connectivity report window.](image)

Opening the report
Example of the eSlate Connectivity report window

An example of the eSlate Connectivity report window is shown in Figure 6-14.

![Figure 6-14 eSlate Connectivity report window.](image)

Examples of the Device Connectivity reports

Please see Appendix A for example printouts of the JBC Connectivity and eSlate Connectivity reports.
Device Audit Log (search) Report

The Device Audit Log (search) report can be generated for one Event using the Audit Search on the Reports menu. The Audit Search command lets you select one or more device audit log entry types derived from device backup data in the Event to include in the report. This report may be hundreds of pages long. It lists the Event name and, for each device that contains the specified audit log entry (entries), it lists the public serial number followed by the log entry number, the date and time stamp of the entry, log entry type description, and additional audit log data.

To generate the report you will specify:

- An Event
- The device type: JBC or eSlate
- Early or Election
- Which log entries to search for

Information in the Device Audit Log report

- The sort order for the Device Audit Log (search) report is audit log entry number.

The information in the Device Audit Log (search) report is based on the log entries chosen in the Audit Log Entries window (see Figure 6-17 on page 52).

The Device Audit Log (search) report contains the information listed in Table 6-8.

Table 6-8  Device Audit Log (search) report sections.

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td>Standard header described in Headers printed on reports on page 38.</td>
</tr>
<tr>
<td>Event name</td>
<td>Lists the name of the Event used in the report.</td>
</tr>
<tr>
<td>device name, serial number</td>
<td>Lists the device type (eSlate or JBC) and the device's public serial number.</td>
</tr>
<tr>
<td>polling place</td>
<td>Lists the name of the polling place.</td>
</tr>
<tr>
<td>Entry column</td>
<td>Lists the log entry number.</td>
</tr>
<tr>
<td>Time column</td>
<td>Lists the date and time of the log entry.</td>
</tr>
<tr>
<td>Code column</td>
<td>Lists an internal code value.</td>
</tr>
<tr>
<td>Description column</td>
<td>Lists the log entry type for the log entry.</td>
</tr>
<tr>
<td>Status column</td>
<td>Lists an internal status value.</td>
</tr>
<tr>
<td>Data column</td>
<td>Lists an internal data value.</td>
</tr>
<tr>
<td>Footer</td>
<td>Standard footer described in Footers printed on reports on page 38.</td>
</tr>
</tbody>
</table>
Steps for: Opening the report

To open the Audit Log Search window so you can view the Device Audit Log (search) report:

1. From the Reports menu, select Audit Search (see Figure 6-15).
   The Audit Log Search window appears (see Figure 6-16).
2. From the Event list box, select the Event to use in the report.

3. From the Device list box, select a device type:
   - JBC - generates the report for JBCs in the Event.
   - eSlate - generates the report for eSlates in the Event.

4. Select an election type option:
   - Early Election - Sets the report to Early Voting.
   - Election Day - Sets the report to Election Day voting.

5. Click [ ]
   The Audit Log Entries window appears (see Figure 6-17).

6. In the Audit Log Entries window, select the Entry Type you want to include in the report (see Figure 6-17).
   To select multiple Entry Types, hold down the Ctrl key as you click.

7. Click [ ]
   The Audit Log Search Report window appears (see Figure 6-18 on page 53).
Example of the Audit Log Search Report window

An example of the Audit Log Search Report window containing the Device Audit Log (search) report is shown in Figure 6-18.

![Device Audit Log (search) report screenshot]

**Figure 6-18 Audit Log Search Report window.**

Example of the Device Audit Log (search) report

Please see Appendix A for an example printout of the Device Audit Log (search) report.

Opening the report
Device Audit Log Report

The Device Audit Log report is generated using the Device Audit command in the Reports menu. It lists all audit log entries in an Event that are associated with one backed-up device. The report shows the Event name, device public serial number, Election type, and each audit log entry, including date and time stamp and additional entry-specific data.

To generate the report you will specify:

- An Event
- Early or Election
- Device public serial number

Information in the Device Audit Log report

- The sort order for the Device Audit Log report is audit log entry number.

The Device Audit Log report contains the information listed in Table 6-9.

<table>
<thead>
<tr>
<th>Table 6-9 Device Audit Log report sections.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
</tr>
<tr>
<td>Event name</td>
</tr>
<tr>
<td>device name, serial number</td>
</tr>
</tbody>
</table>
| election mode | Lists the mode of the Election MBB:  
   - Test  
   - Election |
| Entry column | Lists the log entry number. |
| Time column | Lists the date and time of the log entry. |
| Code column | Lists an internal code value. |
| Description column | Lists the log entry type for the log entry. |
| Status column | Lists an internal status value. |
| Data column | Lists an internal data value. |
| Footer | Standard footer described in Footers printed on reports on page 38. |
Steps for: Opening the report

✔ To open the Device Audit Report window so you can view the Device Audit Log report:
1. From the Reports menu, select Device Audit (see Figure 6-19).
   The Device Audit window appears (see Figure 6-20).
2. From the Event list box, select the Event to use in the report.

3. From the Device list box, select a device public serial number.
4. Select an election type option:
   • Early Election — Sets the report to Early Voting.
   • Election Day — Sets the report to Election Day voting.

5. Click Submit.
The Device Audit Report window appears with the Device Audit Log report (see Figure 6-21 on page 56).
Example of the Device Audit Report window

An example of the Device Audit Report window is shown in Figure 6-21.

![Device Audit Report window]

**Figure 6-21 Device Audit Report window.**

Example of the Device Audit Log report

Please see Appendix A for an example printout of the Device Audit Log report.
Device Cast Vote Records Report

The **Device Cast Vote Records** report shows all of the voted options for each CVR (cast vote record) within one specific device for an Event. The report shows the name of the Event, the public serial number of the device and device type, and lists for each CVR the polling place where the device recorded the CVR, the precinct name for the CVR, and the contest and option names of each voted item in the CVR.

To generate the report you will specify:
- An Event
- Early or Election
- Device public serial number

**Information in the Device Cast Vote Records report**

The report format is two columns of listings per page.
- The primary sort order for the **Device Cast Vote Records** report is CVR number.
- The secondary sort order for the **Device Cast Vote Records** report is order of contest appearance on the ballot.
- The **Device Cast Vote Records** report contains the information listed in Table 6-10.

<table>
<thead>
<tr>
<th>Table 6-10 Device Cast Vote Records report sections.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Header</strong></td>
</tr>
<tr>
<td><strong>Event name</strong></td>
</tr>
<tr>
<td><strong>device serial number, device type</strong></td>
</tr>
<tr>
<td><strong>CVR</strong></td>
</tr>
<tr>
<td><strong>Precinct</strong></td>
</tr>
<tr>
<td><strong>Polling Place</strong></td>
</tr>
<tr>
<td><strong>contests and votes</strong></td>
</tr>
<tr>
<td><strong>Footer</strong></td>
</tr>
</tbody>
</table>
Steps for: Opening the report

To open the Device Vote Records Report window so you can view the Device Cast Vote Records report:
1. From the Reports menu, select Device Vote Records (see Figure 6-22).
   OR
   click.
   The Device Vote Records window appears (see Figure 6-23).

2. From the Event list box, select the Event to use in the report.
3. From the Device list box, select a device public serial number.

4. Select an election type option:
   • Early Election - Sets the report to Early Voting.
   • Election Day - Sets the report to Election Day voting.

5. Click.
   The Device Vote Records Report window appears (see Figure 6-24 on page 59).
Example of the Device Vote Records Report window

An example of the Device Vote Records Report window is shown in Figure 6-24.

![Example of the Device Vote Records Report window](image)

**Figure 6-24 Device Vote Records Report window**

**Example of the Device Cast Vote Records report**

Please see Appendix A for an example printout of the Device Cast Vote Records report.

Opening the report
Votes By Precinct Report

The Votes by Precinct report can be generated for eSlates or JBCs in an Event. It lists the voted options for each CVR (cast vote record) in a specific precinct. The report shows name of the Event and, for each precinct, lists for each CVR the polling place where the device recorded the CVR, the public serial number of the device, and the contest and option names of each voted item in the CVR.

To generate the report you will specify:
♦ An Event
♦ Early or Election
♦ Device type (eSlate or JBC)
♦ The precinct

Information in the Votes by Precinct report

The report format is two columns of listings per page.
♦ The primary sort order for the Votes by Precinct report is precinct.
♦ The secondary sort order for the Votes by Precinct report is polling place name.
♦ The tertiary sort order for the Votes by Precinct report is order of contest appearance on the ballot.

The Votes by Precinct report contains the information listed in Table 6-11.

<table>
<thead>
<tr>
<th>Table 6-11 Votes by Precinct report sections.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Header</strong></td>
</tr>
<tr>
<td>Event name</td>
</tr>
<tr>
<td>Precinct</td>
</tr>
<tr>
<td>Polling Place</td>
</tr>
<tr>
<td>Serial</td>
</tr>
<tr>
<td>contests and votes</td>
</tr>
<tr>
<td>Footer</td>
</tr>
</tbody>
</table>

Steps for: Opening the report

To open the Device Vote Records by Precinct Report window:
1 From the Reports menu, select Votes by Precinct (see Figure 6-25),
OR
   click . The Votes by Precinct window appears (see Figure 6-26 on page 61).

Figure 6-25 Reports menu showing the Votes by Precinct choice.
2. From the Event list box, select the Event to use in the report.
3. From the Device list box, select a device type:
   - eSlate
   - JBC
4. Select an election type option:
   - Early Election - Sets the report to Early Voting.
   - Election Day - Sets the report to Election Day voting.
5. Click [OK].
   The Precinct selection window appears (see Figure 6.27).
6. In the Precinct Selection window, select the precinct to use in the report (see Figure 6.28).
   To select multiple precincts, hold down the Ctrl key as you click.
7. Click [OK].
   The Device Vote Records by Precinct Report window appears (see Figure 6.29 on page 62).
Example of the Device Vote Records by Precinct Report window

An example of the Device Vote Records by Precinct Report window with the Votes by Precinct report is shown in Figure 6-29.

![Figure 6-29 Device Vote Records by Precinct Report window.](image)

Example of the Votes by Precinct report

Please see Appendix A for an example printout of the Votes by Precinct report.
SERVO Internal Audit Report

The SERVO Internal Audit report lists the audit log entries for the audit log internal to SERVO. The report lists description of audit log entry, date and time stamp, user ID and data associated with the entry.

Information in the SERVO Internal Audit report
- The sort order for the SERVO Internal Audit report is sorted by date and time stamp.

The SERVO Internal Audit report contains the information listed in Table 6-12.

Table 6-12 SERVO Internal Audit report sections.

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td>Standard header described in Headers printed on reports on page 38.</td>
</tr>
<tr>
<td>Description</td>
<td>Lists the type of transaction that occurred.</td>
</tr>
<tr>
<td>Date column</td>
<td>Lists the date and time of the transaction.</td>
</tr>
<tr>
<td>User column</td>
<td>Lists the name of the user logged in to SERVO.</td>
</tr>
<tr>
<td>Data column</td>
<td>Lists data relevant to the transaction. For example, device ID for devices assigned or backed up.</td>
</tr>
<tr>
<td>Footer</td>
<td>Standard footer described in Footers printed on reports on page 38.</td>
</tr>
</tbody>
</table>

Steps for: Opening the report

To open the SERVO Audit Log Report window so you can view the SERVO Internal Audit report:
- From the Reports menu, select SERVO Audit (see Figure 6-30)
- OR
- Click .

The SERVO Audit Log Report window appears (see Figure 6-31).

Figure 6-30 Reports menu showing the SERVO Audit choice.
Example of the SERVO Audit Log Report window

An example of the SERVO Audit Log Report window is shown in Figure 6-31.

Example of the SERVO Internal Audit report

Please see Appendix A for an example printout of the SERVO Internal Audit report.
**SERVO**

**Chapter 7**

**User Administration**

---

**Main Topics**

- Overview, this page.
- Defining a User, this page.
  - Adding a user on page 66.
  - Changing a user's password or privileges on page 67.
  - Deleting a User on page 67.
- Notes about defining users on page 68.

---

**Overview**

Any user who has User Administrative privileges within SERVO can:

- add or delete a user
- change a user's privileges
- change a user's password
Defining a User

An Administrator with User Administration privileges can add or modify user names, passwords, and privileges for access to the SERVO application with the Administration command in the Users menu. (See Figure 7-1).

Users of the SERVO application can be assigned one or more of the following privileges:
- User Administration
- Event Administration
- Equipment Administration
- Equipment Backup and Reset
- Election Recount/Recovery
- Reporting

Steps for: Adding a user

Privileges for a user are defined by the Administrator.
User login names must be unique.

To define a new user's User ID, the user's password, and the user's privileges:
1. Login to SERVO as an Administrator user with User Administration privileges.
2. From the User menu, select Administration (see Figure 7-1),
   - OR - click the User Administration tool.

The User Administration window appears (see Figure 7-2).

3. In the User Name field, type the name the user must type into the SERVO Login window (see Figure 1-3 on page 16).
4. In the Password field, type the password the user must type into the SERVO Login window.
   NOTE: The password is not case-sensitive when the user types it in the SERVO Login window.
5. In the Confirm field, type the password again.
6. Click in the privileges check boxes to place a check mark for the privileges the user will have.
7. Click to save your changes.
Steps for: Changing a user's password or privileges

Privileges for a user are defined by the Administrator.

To change a user's password, and/or privileges:
1. Login to SERVO as an Administrator user with User Administration privileges.
2. From the User menu, select Administration (see Figure 7-1),
   - OR - click 🌐, the User Administration tool.

   The User Administration window appears (see Figure 7-2 on page 66).
3. In the User Name list box, select the name of the user you want to work with.
4. In the Password field, type the password the user must type into the SERVO Login window.
   **NOTE:** The password is not case-sensitive when the user types it in the SERVO Login window.
5. In the Confirm field, type the password again.
6. Click in the privileges check boxes to place a check mark for the privileges the user will have.
7. Click 📋 to save your changes.

Steps for: Deleting a User

To delete a user:
1. Login to SERVO as an Administrator user with User Administration privileges.
2. From the User menu, select Administration (see Figure 7-1),
   - OR - click 🌐, the User Administration tool.

   The User Administration window appears (see Figure 7-2 on page 66).
3. In the User Name list box, select the name of the user you want to delete.
   The user's definitions appear in the User Administration window (see Figure 7-3).
4. Click 🗑 to remove the user.
   The User Administration window closes.
Notes about defining users

If the values for the Password and Confirm fields do not match when you click in the User Administration window, the message shown in Figure 7-4 appears.

1. Click to close the dialog box.
2. In the User Administration window, re-type the values for the Password and Confirm fields.
3. Click to save your changes.

Figure 7-4 Password Entry dialog box.
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Appendix A

Sample Reports

List of SERVO Reports

- Equipment List Report
- Backed Up Devices Report
- Device Connectivity Reports
- Device Audit Log (search) Report
- Device Audit Log Report
- Device Cast Vote Records Report
- Votes By Precinct Report
- SERVO Internal Audit Report