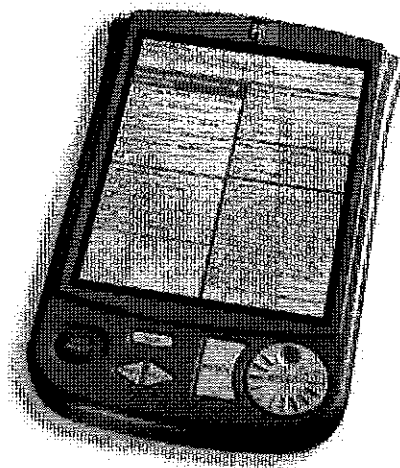


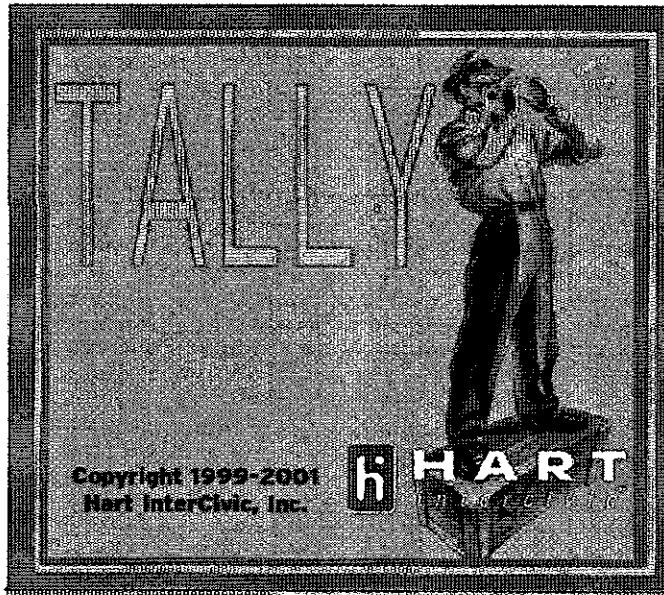


eSlate™ Electronic Voting System



TALLY SOFTWARE TRAINING MANUAL

BOSS Version 2.8 compatible



TM

Tally

Tally Version # 2.8

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T-3, Revision J5
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INTRODUCTION

What is Tally?

Tally is a software application that reads, stores, and tabulates the Cast Vote Records™ (CVRs) from Hart InterCivic's Ballot Origination Software System's Mobile Ballot Boxes (MBBs)™. The MBBs contain Cast Vote Records captured by the eSlate Precinct Voting System™ (PVS) and/or scanned Ballot Now™ paper ballots and audit trail data that authenticates the CVRs. Tally is initialized with the locked Ballot Origination Software System (BOSS) database that was used to create the election. This initialization "programs" Tally for tabulation. The only required task prior to beginning the tabulation process is to input any approved write-in candidate names. Tally counts vote totals for Test Tabulations, Absentee Voting, Early Voting, and Election Day. Tally produces official results reports and data.

This Document:


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

Objectives

Through this course the trainee will:

- Tabulate CVRs recorded on eSlate system MBBs,
- Generate unofficial reports and official reports,
- Edit write-ins,
- Check provisional ballots,
- Include absentee and manual votes in the tabulation,
- Produce tabulation reports,
- Close an election, and
- View procedures for backing up election databases.

Take Note:

- All steps that refer to a button or menu on the screen have the button in **bold** (i.e.: **Save, Close, OK**).
- All steps that refer to a key on the keyboard have the key underlined (i.e.: Ctrl, Shift, Enter).
- All steps that refer to a mouse *click* have the word(s) *italicized* (i.e.: *click, right click, double click*). The word *click* refers to a *left click*.
- A  refers to areas within the Training Manual that contain more information regarding the topic.
- Tally prints a hard copy, real-time, Audit Log documenting all user activities.

 For **Tips & Tricks** see page 20. For a **Glossary of Terms** see page 15.

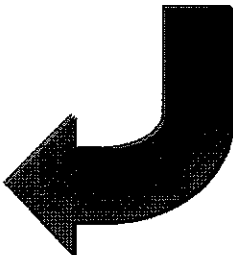
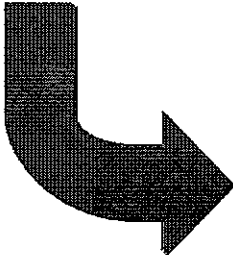
ESLATE DATA FLOWCHART

BOSS
Creates the ballot database & saves it to a Mobile Ballot Box (MBB).



Ballot Now
Uses a BOSS ballot on an MBB, prints, scans, and saves Cast Vote Records for absentee/by-mail voting.

eSlate PVS
Uses a BOSS ballot on an MBB, presents ballots and saves Cast Vote Records for Early Voting & Election Day in-person voting. Includes: JBCs, eSlates & Disabled Access Units.



Tally
Reads Cast Vote Records from MBBs voted on Ballot Now & eSlates. Counts the votes and produces official results reports.

TALLY MENUS

File Menu	Reports Menu
<p>File</p> <ul style="list-style-type: none"> Open Database Exit 	<p>Reports</p> <ul style="list-style-type: none"> Combined Official Database Final Cumulative Precinct Status > <ul style="list-style-type: none"> No HBB IDs With HBB IDs Precinct Not In Status Provisional Ballots Rejected Write-In Candidates Results > Summary > Unreported Polling Places Write-In Candidates
Tally Menu	
<p>Tally</p> <ul style="list-style-type: none"> Pre-Election Election Day Manual Votes Batch Provisional Ballots Import Votes 	<p>Reports</p> <ul style="list-style-type: none"> Combined Official Database Final Cumulative Precinct Status > Precinct Not In Status Provisional Ballots Rejected Write-In Candidates Results > <ul style="list-style-type: none"> Detail Summary Summary Unreported Polling Places Write-In Candidates
Administration Menu	
<p>Administration</p> <ul style="list-style-type: none"> New Tally Tasks Change Password User Maintenance Copy BOSS Database Archive Database View Audit Log 	<p>Reports</p> <ul style="list-style-type: none"> Combined Official Database Final Cumulative Precinct Status > Precinct Not In Status Provisional Ballots Rejected Write-In Candidates Results > Summary > <ul style="list-style-type: none"> All Counties Public - All Counties All Counties by Precincts Unreported Polling Places Write-In Candidates

TALLY USER PRIVILEGES

Administrators and Operators login to the Tally application by typing a User ID (username) and password after opening Tally.

It is recommended that the user currently logged in:

- Stay at the computer while running the application,
- Exit the application if s/he steps away from the system.

An administrator sets user privileges. See the Tally Operations Manual for directions on setting user privileges. The following charts show user privileges for Tally functions and Admin menu commands:

Tally Function	Update	All
Create Databases	No	Yes
Modify Databases	Yes	Yes
Perform Manual Votes	No	Yes
Print Reports	Yes	Yes
Change Current User Password	Yes	Yes
Create New Users	No	Yes

TALLY OVERVIEW

When you are ready for Tally, you have:

1. Created the ballot in BOSS,
2. Written all MBB and DAU cards,
3. Locked the BOSS database for Tally.
4. With MBBs created in BOSS you have;
 - a. Conducted a Test or Election mode election with eSlates,
 - b. Scanned and saved cast vote records for voted Ballot Now paper ballots, if applicable.

Creating a Tally Database

The definitions of the three types of status for a Tally Election database are:

- **NEW** – When the database currently being used has no votes recorded yet (no MBBs from Test or Election have been read).
- **OPENED** – When the database currently being used has votes recorded in it.
- **CLOSED** – When the database has been closed because all MBBs for the election have been read and all manual votes have been processed.

Pre-Election Activities

Before Election Day, you can perform the following tasks with the election's Tally Election database that has the NEW or OPENED status:

- Define eligible write-in candidate names,
- Define Tally options for counting provisional ballots and consolidating split precincts,
- Read Test MBBs to perform a tabulation test, and
- View and print Test Tally reports.

Election Day Activities

On Election Day you can perform the following tasks with the election's Tally Election database that has the OPENED status:

- Manage provisional ballots (this can also be done after the election is closed in Tally),
- Assign write-in votes,
- Read election MBBs from:
 - Absentee ballots recorded with the Ballot Now application
 - Early Voting ballots
 - Election Day ballots,
- View and print Unofficial Tally reports,
- Add or subtract votes manually,
- Reject or Accept Provisional Ballots.

Post-Election Day Activities

After all MBBs for the election have been read and the manual votes task is complete you can perform the following tasks with the election's Tally Election database that has the CLOSED status:

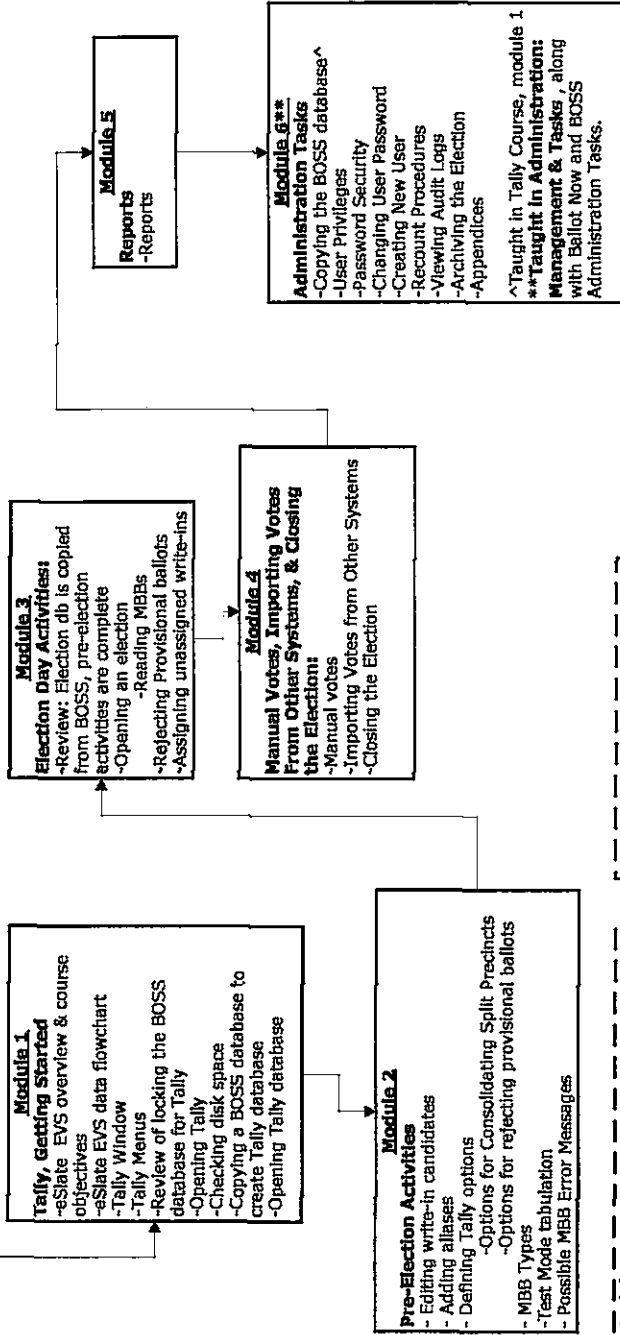
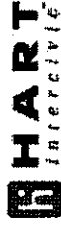
- Close the Election,
- View and print Official Tally reports,
- Reject or Accept Provisional Ballots,
- Backup to CD and archive the election.

SEQUENTIAL STEPS FOR USING TALLY TO COUNT VOTED MBBs

Steps:	More Information:
1. In the BOSS program, lock the BOSS database for Tally.	Make certain all MBBs and DAU cards have been written before locking.
2. Copy the BOSS database to Tally.	Test mode and Election mode databases are copied into Tally separately. <ul style="list-style-type: none"> ➤ Each Tally database must have a unique name. ➤ Only one Tally Election mode database for a specific BOSS database may exist at a time.
3. Edit Write-Ins and Aliases, if applicable.	Write-ins may be edited before and/or after MBBs have been read. <ul style="list-style-type: none"> ➤ An election cannot be closed until all write-ins have been edited and resolved.
4. Define Tally Options.	Tally Options include: <ul style="list-style-type: none"> ➤ Choosing to include provisional ballots in the totals, or not to, and ➤ Choosing to consolidate split precincts, or not to.
5. Perform a Logic & Accuracy Test, and read Test Mode MBBs.	Refer to the eSlate Support Procedures Training Manual for details on performing an L & A Test.
6. Repeat steps 2, 3, and 4 for the Election mode database.	
7. Read the Election mode MBBs.	Election mode MBBs can only be read into Tally on the date of the election or later, based on the election date defined in BOSS.
8. Assign Unassigned Write-Ins, if applicable.	
9. Process provisional ballots now or after the election has been closed in Tally.	
10. Calculate any necessary manual vote tabulations.	
11. Import votes from other systems, if applicable.	
12. After all MBBs have been read, close the election in Tally.	You can read unvoted MBBs that were created as backups for the election in order to account for all MBBs written.
13. Print official reports.	Reports are unofficial until the election is closed in Tally.
14. Back up election databases to CD.	☞ See page 23.

TALLY OPERATOR TRAINING COURSE CONTENT CHART

TALLY OPERATOR Training Course



Module 1
Tally, Getting Started
 -eSlate EVS overview & course objectives
 -eSlate EVS data flowchart
 -Tally Window
 -Tally Menus
 -Review of locking the BOSS database for Tally
 -Opening Tally
 -Checking disk space
 -Copying a BOSS database to create Tally database
 -Opening Tally database

Module 2
Pre-Election Activities
 - Editing write-in candidates
 - Adding aliases
 - Defining Tally options
 -Options for Consolidating Split Precincts
 -Test Mode tabulation
 - MBB Types
 - Possible MBB Error Messages

Module 3
Election Day Activities
 -Review: Election db is copied from BOSS, pre-election activities are complete
 -Opening an election
 -Reading MBBs
 -Rejecting Provisional ballots
 -Assigning unassigned write-ins

Module 4
Manual Votes, Importing Votes From Other Systems, & Closing the Election
 -Manual votes
 -Importing Votes from Other Systems
 -Closing the Election

Module 5
Reports
 -Reports

Module 6
Administration Tasks
 -Copying the BOSS database
 -User Privileges
 -Password Security
 -Changing User Password
 -Creating New User
 -Recount Procedures
 -Viewing Audit Logs
 -Archiving the Election
 -Appendices
 ^Taught in Tally Course, module 1
 ***Taught in Administration Management & Tasks, along with Ballot Now and BOSS Administration Tasks.

Trainee Materials:
 -Tally Operations Manual
 -Tally Training Manual
 -writing instruments for notetaking

Trainer Materials:
 -eSlate Training Specialist's Handbook
 - Tally Operations Manual
 - Tally Training Manual
 - MBBs with CVRs from the eSlate PVS and Ballot Now
 - computer with BOSS, Fast-Trac Tally, & Tally loaded
 -laser printer
 -laser pointer
 -LCD projector
 -projector screen
 -training evaluation forms for trainees, 1 per
 -self assessment for trainees, 1 per
 -trainee course completion certificates

Audience Definition:
 elections officials, office personnel, tabulation specialist

Timeframe for Training: 1 day**

TALLY OPERATOR TRAINING COURSE OUTLINE

Estimated Time: 1 day

Audience: Tabulation specialists, Elections Officials

Objectives: Trainees will open Tally and copy a BOSS database, set up Tally before the election starts, read MBBs, look at challenged ballots, assign write-ins, enter absentee and manual votes, view and print Tally reports, close an election and archive the Tally database.

Benefits of Tally: Tally tabulates the cast votes with "one click" simplicity. Certified write-ins can be identified before tabulation takes place, making counting votes for those positions automatic. Provisional ballots can be automatically included in the count, or not, and can be backed out or added if challenged. Test mode tabulations are kept in separate databases from election mode databases.

Manuals: Tally Operations Manual, Tally Training Manual

Modules: 1-6

Prerequisite: Hands-on demonstration with the eSlate. Trainees will use the system as if they are "voters", if time and equipment availability allow.

Teaching Points:

- **Module 1: Tally, Getting Started**
 - ▶ System Overview and Benefits to Trainees, and Course Objectives
 - ▶ eSlate EVS data flowchart, Tally Window, Tally menus
 - ▶ Review Locking the BOSS database for Tally
 - ▶ Opening Tally
 - ▶ Checking disk space
 - ▶ Copying a BOSS database to Tally
 - ▶ Opening a Tally database
 - **Exercise 1.1:** Copy a BOSS database that you have locked for Tally and voted on an eSlate (or scanned with voted paper ballots from Ballot Now). Create a Tally database from this BOSS database, and open it.

Tally Operator Training Course Outline (cont.)

- **Module 2: Pre-Election Activities**
 - ▶ Editing Write-In Candidates
 - ▶ Adding aliases
 - ▶ Defining Tally Options
 - ▷ Options for Consolidating Split Precincts
 - ▷ Options for Rejecting Provisional Ballots
 - ▶ Mobile Ballot Box Types
 - ▶ Test Mode Tabulation (Pre-Election Logic & Accuracy Test)
 - ▶ Possible MBB Error Messages
 - **Exercise 2.1:** Edit write-ins and assign aliases. Define the Tally Options to reflect the election you have an MBB for and state and local regulations. Read an MBB written in Test Mode and voted on an eSlate (and/or a test MBB from scanned Ballot Now paper ballots).

- **Module 3: Election Day Activities**
 - ▶ Opening an Election (with a new Tally database, Pre-Election Activities completed sans Test Tabulation) & reading Election MBBs.
 - ▶ Assigning unassigned write-ins
 - **Exercise 3.1:** Copy the BOSS database into Tally, complete Pre-Election Activities for the new Tally database, and read an MBB written in Election Mode and voted on an eSlate (and/or an MBB from scanned ELECTION Ballot Now paper ballots), if available.
 - **Exercise 3.2:** Assign at least one unassigned Write-in to a contest. If you have more than one unassigned Write In, remove at least one. Resolve all write-ins.

- **Module 4: Manual Votes, Importing Votes from Other Systems & Closing the Election**
 - ▶ Manual Votes
 - ▶ Importing Votes from Other Systems
 - ▶ Closing the Election
 - ▶ Rejecting or Accepting Challenged Provisional Ballots
 - ▶ Backing Up the Tally Database to a CD-R.
 - **Exercise 4.1:** Adjust the tabulation for your election. Add 5 votes to one candidate. Subtract 2 votes from another candidate.
 - **Exercise 4.2:** Close the election you have been working with. Process Provisional Ballots. Accept (leave) at least one. Reject at least one. Print a "Provisional Ballots" Report. Back up the Tally database to CD-R.

- **Module 5: Reports**
 - ▶ Reports
 - **Exercise 5.1:** View reports. If you are connected to a printer, print a report of your choice.

Tally Operator Training Course Outline (cont.)

- **Module 6: Tally Administration Tasks**
 - ▶ Viewing Audit Log (print out)
 - ▶ Copying a BOSS database (covered in Tally Course, Module 1)
 - ▶ User Privileges
 - ▶ Password Security
 - ▶ Changing User Password
 - ▶ Creating New User
 - ▶ Procedures for a recount or contested election
 - ▶ Archiving the Election
 - ▶ Appendices
 - **Exercise 6.1:** View the options in the Administration menu. Administrative users, add yourself as a new user. Delete the original user. Add other operators as users, giving them appropriate privileges.

- **Review Appendices and Day's lessons**
 - ▶ Appendices
 - ▷ Glossary of Terms
 - ▷ Information, Confirmation, Error & Warning Messages
 - ▷ Tips & Tricks
 - ▷ Backing Up Election Databases to a CD
 - ▷ Course Self-Check List

APPENDICES

Appendix A: Glossary of Terms

Term	Definition
ACCESS CODE	A four-digit number given to each voter from the JBC. The ACCESS CODE tells the eSlate system which ballot style (precinct) to display to the voter.
ACCESS CODE Summary	A JBC report that is printed when polls are closed on Election Day. It lists the number of ACCESS CODES issued, voted, expired, and canceled.
Alphanumeric	A field type. Means that the field can contain both letters (alpha) and numbers (numeric).
Americans' with Disabilities Act (ADA)	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.
ASCII file	American Standard Code for Information Interchange. Files that, by their formatting, are easier to transfer between different types and versions of computers. Also called "text files".
Audit Trail	Information that allows the elections office to view the steps that occurred on the equipment included in an election to verify the steps and procedures followed without compromising voter privacy.
Ballot Format	The arrangement of the ballot created in BOSS. Ballots may be formatted for the eSlate PVS or for Ballot Now.
Ballot Instructions	Instructional text that appears at the top of the ballot. There are two separate types of Ballot Instructions: (1) PVS (for the eSlate PVS system) and (2) Ballot Now.
Ballot Now™	The eSlate EVS software application that prints paper ballots on demand and then digitally images the voted ballots to save for delivery to Tally.
Ballot Style	The specific ballot created by precinct assignments to contests in BOSS.
Ballot Text	Instructional text embedded in the ballot. Ballot Text is usually used to identify a section of the ballot.
BOSS™	Ballot Origination Software System. This is the software that builds an election database and writes multiple ballot styles. BOSS is used to create the MBB and DAU cards that drive PVS and Ballot Now™.
Contest	A choice to be made on the ballot. Also known as races, offices, issues, referendums, and questions.
Cast Vote Record (CVR)	Electronic version of each vote cast, reflecting a ballot from each voter.
Crystal Reports	An off-the-shelf report formatting software application for database-centered products.
Cumulative (ACCESS CODE) Summary	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.
Database	A storage point for information (data).

Appendix A: Glossary of Terms (cont.)

Term	Definition
Cyclic Redundancy Check	A continuous test of each transfer of data within a system to insure that the data received at the end of the transfer is the same as the data originated by the source.
Daily Detail Report	A JBC report that can be printed out when polls are suspended in Early Voting. This report lists the number of ACCESS CODES issued and voted by precinct, as well as Daily (ACCESS CODE) Summary and Cumulative (ACCESS CODE) Summary Reports.
Daily (ACCESS CODE) Summary	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.
Daisy Chain	Items connected in a series. The eSlates are daisy chained, one to another, with one plugging into the JBC.
DAU card	The PC card that enables the DAU eSlate to carry audio and respond to the specialty input devices. Also called an "Audio Card".
Disabled Access Unit™ (DAU)	An eSlate that includes a PC card module. A PC card is inserted into this module so that voters with disabilities can vote independently and privately, listening to the ballot with headphones and/or interacting with the ballot using tactile input switches or a sip and puff device. Also called the "DAU eSlate".
Direct Record Electronic (DRE)	The election industry term for an electronic machine at which a voter can view and vote a ballot.
Election Identification Report	A report that the JBC 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.
eSlate Unit	A Hart InterCivic electronic voting input device without audio capability. An electronic ballot is presented on this unit.
eSlate Electronic Voting System (EVS)	The entire system from BOSS to Tally. Includes: BOSS, the Precinct Voting System (see eSlate Precinct Voting System), Ballot Now, and Tally. Also called EVS or eSlate EVS.
eSlate Precinct Voting System (PVS)	Those components of the eSlate EVS that are required for election activities at individual polling places. The PVS includes: JBCs, eSlates, DAU eSlates, MBBs, and all accessories for polling place voting.
Fast Trak Tally	A software utility that allows a summary of results to be sent to a central location from the Judge's Booth Controller, via modem, to provide advanced unofficial results.
Field	An area available for data entry in a software application, like BOSS or Tally.
Firmware	Computer programs installed permanently in a hardware device that allow data to be read and a program to be executed, but for which alterations of the data or the program are not permitted.
Flash Memory	Flash memory is reprogrammable, read only memory and 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.

Appendix A: Glossary of Terms (cont.)

Term	Definition
Judge's Booth Controller (JBC)	The control unit of the eSlate PVS, through which a poll worker distributes electronic ballots to the eSlate and DAU eSlate.
JBC Initialized Report	A report printed from the JBC any time the system is powered on. A self-diagnostic test is run on the system, and the result is indicated as ***PASS** on the report.
Jurisdiction	A precinct or group of precincts managed by a single organization.
Logic and Accuracy Test (L & A)	In the context of an election, a test to check the accuracy of a piece of voting equipment. It 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.
Mobile Ballot Box (MBB)	A PC card that holds all of the ballot information for the eSlate EVS. An MBB is placed in the JBC unit, and an MBB is used in the Ballot Now computer. Cast Vote Records are stored on MBBs.
Network Configuration Report	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.
PC Card	A piece of hardware about the size of an ATM card. It is an information storage device, similar in function to a floppy disk. It is also called a "PCMCIA" card. In the eSlate Electronic Voting System it is called a Mobile Ballot Box (MBB)
Party	A political party. For example, Democrat or Republican.
Polling Place	Where voters physically go to vote. A single polling place, during early voting, can support multiple precincts.
PUB Count	A six-digit number, shown on the Network Configuration Report from the JBC that indicates how many votes have been counted on that machine for the current election.
Precinct	A jurisdiction subdivision for election purposes.
Provisional Voter	A voter who may not meet the qualifications for voting at that polling place, but is allowed to vote on a "provisional ballot" under conditions 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. Also called a voter with a "challenged ballot".
PVT Count	A six-digit number, shown on the Network Configuration Report from the JBC that indicates how many votes have been counted on that machine in its lifetime.
Retrieval Code	A unique number assigned to a provisional ballot to enable swift retrieval of that ballot from the eSlate system by election officials.
Select Wheel	The rotary wheel on the eSlate and DAU eSlate that allows a voter to navigate the ballot and highlight choices by turning the wheel. It is also called Rotary Select™ Navigation System.
Sip & Puff	An input device that connects to the DAU eSlate in the handicap access jack. This enables voters with disabilities with extremely limited mobility to vote with a mouth-controlled device.
Split Precinct	The smallest division of a precinct for election purposes.
Spoiled Ballot	A ballot that has been ruined somehow. The voter is still present, and the voter needs a new ballot. With the eSlate system, a ballot is spoiled if the voter gets the wrong ballot style (precinct), the wrong language, or is not on the DAU eSlate but needs to be.

Appendix A: Glossary of Terms (cont.)

Term	Definition
Suspend Report	A JBC report that automatically prints when polls are suspended in Early Voting. 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.
Tactile Input Switches	Also called "jelly switches" or "jelly buttons". Red and green "paddles" that enable voters with disabilities to vote without using the SELECT wheel and ENTER button on the eSlate. Voters without fine motor control use these. The RED tactile input switch is similar to the eSlate's SELECT wheel. The GREEN tactile input switch is similar to the eSlate's ENTER button.
Tally™	The eSlate EVS tabulation software. After an election, the Tally software counts the votes on the MBB(s) and produces reports on those cast votes.
Tally Report	A JBC report that is printed when polls are closed on election day. It includes the date, time, precinct, a tally of votes for each contest, and an ACCESS CODE Summary.
Thrown-out Ballot	A voted ballot that the voter did not place into the ballot box before leaving the polling place. With the eSlate system, this is a ballot that the voter did not cast by pressing CAST BALLOT, and the voter is not present.
UPS	Uninterruptible Power Supply.
Voter Registration Computer	An electronic poll book. Sometimes known as a "thin client".
Zero Tape Report	A JBC report that prints out when polls are opened on the first day of Early Voting and on Election Day. This report lists the contests and candidates on the ballot, and verifies that the number of votes for each candidate is zero.