



**Automated Election Services**

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May 26, 2017

The Honorable Maggie Toulouse - Oliver  
New Mexico Secretary of State  
325 Don Gaspar, Suite 300  
Santa Fe, New Mexico 87501

Dear Madam Secretary:

Please accept this letter as Automated Election Services application for recertification of the AutoVote™ E-PollBook Ballot Management System, Version 11.0 -2017 pursuant to the requirements of Sections 1-9-7.4 and 1-9-14 NMSA 1978. The AutoVote System was originally tested and certified by SLI Global Solutions, an Independent Testing Authority accredited by the National Institute of Standards and Technology and certified by the New Mexico Voting System Certification Committee. As requested, we have provided a copy of the SLI certification report for your review.

Automated Election Services has made no hardware changes to the AutoVote System other than updating the signature pad to a more voter friendly backlit style. AES has also provided additional reporting capabilities to the AutoVote System and enhanced the user interface. Please find enclosed a copy of the AutoVote Poll Official's User Manual for your review.

Automated Election Services affirms that the AutoVote E-PollBook Ballot Management System Version 11.0 – 2017 currently meets all applicable requirements as described in Sections 1-9-20 through 1-9-22 NMSA 1978 and all of the requirements existing at the time of testing and certification by SLI as described on pages 7 through 11 of the SLI test report provided.

We are available for questions or system demonstrations at the convenience of your office and the New Mexico Voting System Certification Committee. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Terry Rainey', written in a cursive style.

**Terry Rainey - President  
Automated Election Services**

**Enclosures:**

2011 SLI Global Solutions Report  
AutoVote 2017 Modifications Overview  
New Mexico Election Code Ballot Printing System Requirements  
AutoVote Election Day Poll Official's User Manual Version 11.0 -2017

**AutoVote™ E-PollBook Ballot Management System Version 11.0 – 2017  
Modifications Overview**

Automated Election Services (AES) has made no hardware changes to the AutoVote System other than including the Dominion certified printers: Ricoh SP6330N and Oki C711 along with the HP 5200 for ballot printing.

AES has also provided additional reporting capabilities to the AutoVote System. The basic functionality and system navigation has not changed.

We have enhanced the user interface and updated our logo and the screen color to accommodate the new logo design.

The AutoVote login process has changed to give the option for pollworkers to have individual usernames and passwords. This will run off of a user database that can also be used in conjunction with a time clock and Help Desk requests. This page's structure has added navigational functionality and aesthetics. The ability to print a Zero Report and complete a printer test has also been included.

The End of Day procedure has been reworked. This process will include the imported tabulators (from SERVIS/the County) and will require Pollworkers to verify the totals in a more straight forward manner.

**For a more comprehensive / technical report of modifications made to AutoVote please contact our Information Technology Department at 505-891-6533.**

**NEW MEXICO ELECTION CODE  
BALLOT PRINTING SYSTEM REQUIREMENTS**

**Requirements for systems used to print ballots in polling locations in the state shall meet all outlined requirements in Article 9 of the election code as follows:**

The AutoVote™ E-PollBook Ballot Management System, Version 11.0 -2017 developed by Automated Election Services (AES) meets or exceeds all outlined requirements in Article 9 of the New Mexico Election Code as listed below.

**1-9-20 SYSTEMS DESIGNED TO PRINT BALLOTS AT POLLING LOCATIONS: BALLOT PREPARATION REQUIREMENTS.**

Systems designed to print ballots at polling locations shall provide the general capabilities for ballot preparation and shall be capable of:

- A. Enabling the automatic formatting of ballots in accordance with the requirements of the Election Code, as amended from time to time, for offices, candidates and questions qualified to be placed on the ballot for each political subdivision and election district;**

All required ballot information is gathered and compiled by Automated Election Services (AES) in the centralized AutoVote database. The compiled data is then exported into the tabulation systems election data management software. After generation and jurisdictional approval of actual ballot proofs confirming District, Party, Precinct and Office/Candidate information, the data is updated and re-compiled. Approved and confirmed data is imported into the tabulation systems image management software, automatically generating ballot images that are uniform in style and appearance and in accordance with state statute.

- B. Supporting the maximum number of potentially active voting positions;**

The ballot image management system complies with ballot production standards for voting systems certified in the state, and has the ability to support the maximum number of potentially active voting positions. The ballot imaging software creates unique codes for each precinct, district or division involved in the election ensuring absolute ballot to tabulator compatibility. The ballot images generated are compliant with the maximum size and image capabilities of the tabulation equipment utilized in the State of New Mexico.

- C. Generating ballots for a primary election that segregate the choices in partisan contests by party affiliation;**

AutoVote provides the ability to generate ballots for a primary election that segregates the choices in partisan contests by party affiliation. The ballot images are produced uniquely by Party, by Precinct, by Precinct Part or any other districting schema required by the State or jurisdiction. Ballot images approved by the State and individual counties are then loaded on each jurisdiction's AutoVote system(s).

**D. Generating ballots that contain identifying codes or marks uniquely associated with each format;**

The ballot images include coding marks, combination flags, precinct identifiers and any other markings necessary to identify unique ballot styles.

**E. Ensuring that the voting response fields properly align with the specific candidate names or questions printed on the ballot;**

Each ballot image is generated by the AutoVote database and ballot imaging software. The imaging software automatically ensures that all alignments and placement of ballot information are correct. After visual inspection and customer approval, all ballot images generated by AutoVote systems are tested in-house in a tabulation environment utilizing standardized logic and accuracy testing procedures. This process ensures all response positions are recorded accurately and that all response positions are placed correctly and aligned properly.

**F. Generating ballots that can be tabulated by all certified voting systems in the state;**

Ballots generated by the ballot imaging software and the AutoVote system can be tabulated by all certified voting systems in the state. All ballot images are tested prior to system installation.

**G. Generating a ballot for an individual voter based on voter registration data provided by state or county;**

AutoVote generates a ballot for an individual voter based on their specific voter registration data. The AutoVote system imports voter data directly from the voter data file and recognizes all Party, Precinct, Precinct Part, Districting and any other political subdivision appearing in the file that would identify the ballot style for an eligible voter. That information ties the appropriate ballot style to the specific voter. Ballot Styles cannot be changed without administrative alteration of the actual voter record.

**H. Functionality in absentee, early and election day environments;**

The AutoVote system is specifically designed to function in any environment where issuance of a ballot on demand is required. The AutoVote system has been successfully utilized in New Mexico State Primary and General elections in the Absentee and Early Voting process since 1995. It has also been successfully implemented in the Absentee, Early and Voting Convenience Center model in jurisdictions within the State of substantial size including the City of Albuquerque, the City of Rio Rancho, and the Middle Rio Grande Conservancy District, a jurisdiction spanning a 4 county area.

**I. Providing absentee ballot tracking ability;**

The AutoVote system is a fully integrated Absentee management system. The system manages the Absentee process from initial voter contact to acceptance or rejection of the Absentee Ballot package. The system generates bar-coded BallotPaks that allow automated logging of Absentee activity while generating a full suite of tracking and activity reports. The system also produces Absentee Signature Rosters and Absentee Registers in State prescribed formats as well as giving Administrators the ability to generate reports and export data into Excel file formats.

**J. Uniform allocation of space and fonts used for each office, candidate and question such that the voter perceives no active voting position to be preferred to any other;**

The ballot imaging software automatically ensures uniform allocation of space and fonts for each office, candidate and question. Each ballot image is generated by the AutoVote database and ballot imaging software. The imaging software automatically ensures that all alignments and placement of ballot information are correct and that no active voting position is perceived as showing preference to any other. The software ensures ballot uniformity and the final image, once approved by the jurisdiction, is unalterable.

**K. Rendering the ballot in any of the written languages required by the Federal Voting Rights;**

The AutoVote system allows entry of ballot information in any written language and/or in multiple languages. It also allows for regional or grammatical correction as requested or required by jurisdictions prior to preparation of ballot images. Photos or graphical images may also be incorporated.

**L. Conformity with the optical scan vote tabulator vendor specifications for type of paper stock, weight, size and shape, size and location of voting positions used to record votes; folding; bleed through and ink for printing; and**

The AutoVote system uses only manufacturer approved ballot stock as well production methods and specifications to ensure compatibility with all certified voting systems in the state. AES has the ability to produce finished ballot stock, which exceeds manufacturer's specifications, at its manufacturing facility in Rio Rancho, NM. This ensures same day delivery capability to any jurisdiction in the State.

**M. Interfacing with the statewide voter file for the exchange of data.**

The AutoVote system is designed to be delivered to the jurisdiction fully functional. Voter data is preloaded and all functionality is tested prior to delivery. Currently, voter data is collected from individual jurisdictions utilizing the jurisdictions preferred method of secure data transfer. The jurisdiction need only export voter data in the standard export format.

All voter data files are processed and secured at the AES Rio Rancho facility. Voter data files are imported into the AutoVote system and normalized to match the AutoVote database table structure then installed on specific systems designated for each jurisdiction. This ensures that each system is capable of full functionality in either network or stand-alone environments.

Post-election data updates to the statewide file are prepared and executed based on jurisdictional requirements, requests and capabilities. Activity data can be extracted from the central database by the jurisdiction if they are hosting the AutoVote system database or file extractions can be prepared and transmitted to the jurisdiction in any requested format by AES.

### 1-9-21. SYSTEMS DESIGNED TO PRINT BALLOTS AT POLLING LOCATIONS; SECURITY REQUIREMENTS.

Systems designed to print ballots at polling locations shall provide the security capabilities for ballot preparation and shall be capable of;

#### A. Providing a full audit trail of individual voter activity;

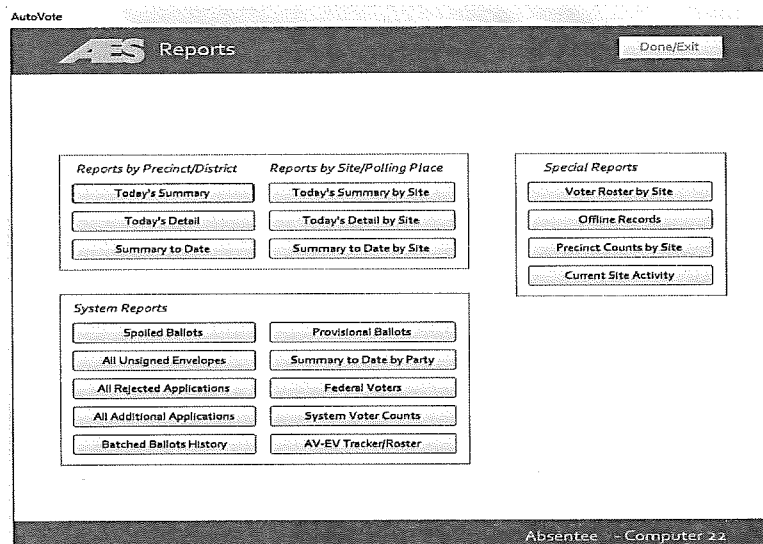
The AutoVote system provides a full system audit trail, tracking all voter activity from the importation of voter data from the jurisdiction through all voter activity including any Absentee, Early Voting or Election Day activity to the post-election reporting and export of voter activity data. Any change to voter records or voter activity status is logged in the system's security audit log tables. Any such change is date and time stamped and the original record data is preserved in the security table.

#### B. Providing full ballot production audit logs for all activity, including absentee voting by mail, in person absentee voting, early voting, provisional voting and spoiling ballots;

Audit logs are generated for every action taken in the AutoVote system including all activity during Absentee, Early Voting, Provisional Ballots, Spoiled Ballots and Election Day. Date and time stamps are generated for every transaction and become a permanent part of the individual voter's record in the election database.

Audit logs are available for all voter activity, at any point during the election cycle at the workstation level or through the AutoVote Administrators Management System.

#### AutoVote System Reports Include:



**Reports are available by Precinct, District, Site and Polling Location**

<i>Reports by Precinct/District</i>	<i>Reports by Site/Polling Place</i>
Today's Summary	Today's Summary by Site
Today's Detail	Today's Detail by Site
Summary to Date	Summary to Date by Site

**AutoVote System Reports Include:**

<i>System Reports</i>	
Spoiled Ballots	Provisional Ballots
All Unsigned Envelopes	Summary to Date by Party
All Rejected Applications	Federal Voters
All Additional Applications	System Voter Counts
Batched Ballots History	AV-EV Tracker/Roster

**AutoVote Special Reports Include:**

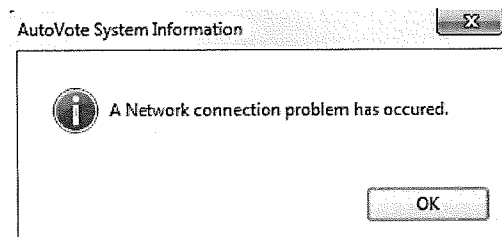
<i>Special Reports</i>
Voter Roster by Site
Offline Records
Precinct Counts by Site
Current Site Activity

**C. Creation and preservation of an audit trail of every ballot issued, including during a period of interrupted communication in the event of a loss of network connectivity;**

AutoVote provides for the creation and preservation of an audit trail of every ballot issued, including during a period of interrupted communication in the event of a loss of network connectivity.

AutoVote is designed so that as a voter is being processed, a database local to the machine and the SQL database on a remote server are concurrently written to and updated.

In the event of loss of network connectivity AutoVote will alert the user that the system is off-line. (Refer to example below.)



The same database that was being concurrently written to during the time the system was connected is now the database from which voters would be processed. This allows the system to continue the correct numbering of ballots and ensures continuity and ballot accountability.

When the network connection is restored, the local data is updated to the SQL server. The time that the system was local is logged into a table and displayed on the System Administration page. It also displays the last time that the system was updated from local.

**D. Suitable security passwords at user, administrator and management levels;**

AutoVote provides security passwords at the User, Administrator and Management levels. Passwords securing the different functions of AutoVote increase in complexity as the ability of the user to perform actions on the systems increase. There are passwords that govern the logon to the Windows-based system as well as the AutoVote system.

Passwords are routinely changed ensuring no unauthorized access. An administrative password is required for any changes to the system setup, add voters to the database, changing of voter's record, capturing a new signature once the ballot has been issued and searching from the server's database.

The passwords are also changeable at any point through the use of the System Setup available only to the Administrator. This only changes the passwords on the specific system the Administrator is logged into. Password security is Administration driven and can be implemented to any desired level.

There is no limit to number of passwords that can be generated or to the level of password protection that can be implemented. Users, Site Administrators, Jurisdictional Administrators or Full Access Admin profiles can be created and implemented.



**E. Preventing the modification of ballot formatting by polling place users; and**

The ballot images cannot be modified once installed on the AutoVote system. Image files are secured and inaccessible without proper security clearance.

**F. Retaining full functionality and capability of printing ballots during a period of interrupted communication in the event of a loss of network connectivity.**

AutoVote is designed to write concurrently to the local database and the SQL database on a remote server. In the event network connectivity is lost, voters can continue to be processed in off-line, Local Database mode. When the network connection is restored, the local data is updated to the SQL server. The time that the system was in local database mode, is logged into a table and displayed on the System Administration page. It also displays the last time that the system was updated from local.

**1-9-22. SYSTEMS DESIGNED TO PRINT BALLOTS AT POLLING LOCATIONS; HARDWARE, SOFTWARE AND USABILITY REQUIREMENTS.**

Systems designed to print ballots at polling locations shall:

**A. Provide hardware requirements that:****1. Shall be networkable and scalable for multi-user environments;**

The AutoVote system is easily networked and scalable for multi-user environments within a Windows domain using standard TCP/IP connections either through wired connections or using the built-in wireless adaptor.

In a networked environment, AutoVote can be scaled to meet any number of systems required for an election. As with any deployed database system, as the number of sites increases, the network backbone at the host location must be able to handle that number of connections. The DHCP scope must be large enough to assign one IP address to each client system. If a VPN concentrator is used, there must be sufficient threads to enable the maximum number of VPN clients configured to securely connect to the host domain.

AutoVote concurrently writes to both a local database and to the SQL server when installed in a network environment. Therefore, at all times, the activity generated from the system is written locally and on the database which enables both redundancy for auditing and backup in case of failure.

AutoVote is designed to provide data redundancy in the extreme. Each client system is updated at the close of the site each day. (Twenty sites with three AutoVote systems installed will generate sixty two backup copies of the data, Server, Server backup, and one each of the AutoVote systems).

**2. Function without degradation in capabilities after transit to and from the place of use;**

AutoVote will perform at optimal performance through transit to and from the voting location. As with all electrical components, a reasonable amount of care to ensure that the components do not fall from excessive heights is required. The normal handling or transit to and from sites has no effect on system performance.

**3. Function without degradation in capabilities after storage between elections;**

The AutoVote system will function without degradation in capabilities after storage between elections. AutoVote systems are retrieved after each election and stored at the AES Rio Rancho facility.

**4. Function in the natural environment, including variations in temperature, humidity and atmospheric pressure;**

AutoVote system components have been tested by an Independent Testing Laboratory to be functional in reasonable working environments. (Refer to enclosed copy of SLI Global Solutions Certification Report)

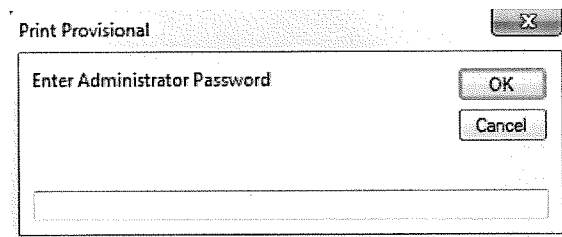
**5. Function in an induced environment, including proper and improper operation and handling of the system and its components during the election process;**

AutoVote system components have been tested by an Independent Testing Laboratory to be functional in reasonable working environments. (Refer to enclosed copy of SLI Global Solutions Certification Report).

**6. Contain prominent instructions as to any special requirements;**

The AutoVote system provides pop up dialogue messages should a user attempt an operation that is not allowed, or one that requires a YES / NO response followed by a confirmation. These dialog messages provide precise instruction on how to proceed. These help dialogues appear throughout the system.

All Administrator actions require an Administrator password. (Refer to example below)



The AutoVote printer also has an operator panel and LED lights that keep users informed of the printer's status. If there is an issue requiring user intervention, the LEDs will blink red. At this point the LCD screen notifies the user as to the issue and the appropriate remedy.

- 7. Have no restrictions on space allowed for installation, except that the arrangement of the system shall not impede the performance of duties by election workers, the orderly flow of voters through polling place or the ability of voters to vote in private; and**

Because AutoVote system components are modular and utilized as a desktop solution, they occupy a small footprint and can be arranged to fit any space.

AutoVote's modality and portability, allows for the systems' setup in a manner that would not impede the performance of duties by election workers, degrade the orderly flow of voters through the polling place, nor would it violate the voter's ability to vote in private.

- 8. Operate with the electrical supply ordinarily found in polling place, nominal one hundred twenty volts alternating current, sixty hertz, single phase.**

All AutoVote system hardware components operate on the standard one hundred twenty volts, alternating current at sixty hertz, single phase.

**B. Provide software requirements that shall:**

- 1. Be capable of exporting voter data and voter activity status data to state and county voter registration systems;**

Voter activity and data can be exported through the AutoVote export modules. Data export ability is only available through the System Administrators secure log in.

The Voter Activity data export file can be imported directly into the State system. AutoVote generates participation reports that can be used to scan in to the VR system to give Early and Election Day Voting Credit.

- 2. Be capable of generating all required absentee and early voting signature rosters in a state-approved format;**

AutoVote provides the basis of an electronic poll book for Absentee, Early Voting and Election Day. The voter's unique identifying information including voter registration number, name, and year of birth, party affiliation and address are represented in electronic form.

The poll worker uses this information to verify the voter's identity and eligibility. This information is verifiable on-screen at the AutoVote workstation (refer to example below), and at the point of capturing a voter's signature on the systems electronic signature pad (Epad).

If a voter refuses to provide an electronic signature, AutoVote can generate a single roster page (Signature Form), in state approved format with all information appearing as it does on a paper roster for the voter to confirm and sign.

AutoVote can also generate paper signature rosters in the State approved format for laser output. This roster is in the State standard 11 by 17 inch format. The roster can also be exported to a PDF and printed by the jurisdiction.

**3. Generate daily and to-date activity reports based on user-defined criteria; and**

The AutoVote system incorporates a suite of reports that have been developed through the systems continued deployment throughout New Mexico.

AutoVote offers several reporting options including a variety of Daily Summary Reports and Activity to Date Reports. The Activity to Date Report includes all election activity since the election began. All reports may also be generated as Excel or ASCII files.

Administrators have access to the **Report Wizard** on the AutoVote Absentee System. Report Wizard provides the ability to create Absentee, Early Voting and Election Day Activity Reports using a broad range of criteria. The Report Wizard allows the Administrator to create reports that are customizable to specific dates, status entries, precinct, party and district. Reports are exportable to an Excel spreadsheet or as a Summary or detailed AutoVote Report, which can be saved as a PDF, or exported as a Label Report.

**AutoVote real-time reports based on:**

- the current and previous status of each voter,
- the date and time of this status,
- the location at which the status was changed, and
- the voter's unique information.

AutoVote Report Wizard

Click on a selection from a list box to include it in your report or spreadsheet. Or leave the list box blank to include all items in the list. To make multiple selections in the list boxes, Press the Ctrl or Shift key while you click. Each criteria list can be cleared by pressing its corresponding Clear button.

Status Entry	Precinct	Party	Select District	Site/Location
Registered to Vote	ESPAÑOLA SCHOOL-1	AIP		AV-Clerks Office
Requested Absentee Application	ESPAÑOLA SCHOOL-2	BFA		EV-Clerks Office
Issued AV Application by Mail	ESPAÑOLA SCHOOL-3	CCN		Nina Otero Community School
Returned AV Application Rejected	MORIARTY SCHOOL-1	CSV		Santa Fe Public Schools Educational Services
Returned AV Application Accepted	MORIARTY SCHOOL-2	DEM		Santa Fe Community College
Issued Absentee Ballot by Mail	MORIARTY SCHOOL-3	DTS		Acequia Madre Elementary
Early Voting	MORIARTY SCHOOL-4	GRN		Montezuma Lodge
Returned Absentee Ballot	MORIARTY SCHOOL-5	IND		Tessique Elementary
Unsigned Absentee Ballot	POJOAQUE SCHOOL-1	INM		St. John's Methodist Church
Voter Deceased	SANTA FE SCHOOL-3	LIB		Gonzalez Community School
Received Ballot after Deadline	SANTA FE SCHOOL-5	LRU		Salazar Elementary

Clear Status    Clear Precinct    Clear Party    Clear District    Clear Site...

Press Next to Continue or Back to go to previous Page    < Back    Next >

**Early Voting daily End of Day Reports including:**

- Daily Summary Report
- Spoiled Ballot Report
- Provisional Ballot Report
- Ballot Number Report, and
- Daily Detail Report

**Election Day VCC Systems End of Day Reports includes:**

- Today's Hands Counts - Spoiled Ballots, Provisional Ballots, Applications/Permits
- Today's Tabulator Counts
- Counts Generated by AutoVote

**4. Have both single transaction and batch transaction absentee production capability; and**

AutoVote provides the ability to process an absentee voter through either a batch process or as a single transaction.

AutoVote allows the Absentee Manager to queue and batch print the official Absentee Ballot request form sent to voters by the County Clerk. The Request Form issued by the Clerk is bar-coded to allow batch processing of returned Request Forms and to create the production queue for batch printing of BallotPaks or Ballots and Labels. The batch printing queue may also be created on a record by record basis.

To process a voter in a single transaction an Absentee Application is processed and accepted through the AutoVote system. Once an application has been accepted, the user selects the "Mail-In Ballot" option. The voter's history is updated, a ballot is issued and the voter's ballot and bar-coded address label is printed simultaneously.

Batch production is initiated by creating the Batch Printing queue either through batch scanning of accepted applications or marking of individual records in the database. Once the queue has been created, the User would then click on "Batch Absentee Ballots" opening the sequential job execution dialog.

**C. Be capable of being operated by computer users familiar with a graphical user interface.**

The AutoVote system utilizes standard user interfaces such as, a QWERTY keyboard and number pad. AutoVote utilizes the Windows operating system and the look and feel of the system will be familiar to even casual computer users. The AutoVote system conforms to the GUI (Graphical Users Interface) Standards and therefore functions in a manner familiar to Windows users.

Utilizing AutoVote requires only that a user be familiar with a QWERTY keyboard and standard mouse to initiate actions required. The graphical user interface is of sufficient type size to be easily readable, distinguish buttons and indicate areas for textual input. An optional touchpad is available to control the Windows cursor. The touchpad would replace the standard two-button mouse.

Each step in the processing of a voter during the process is numbered and follows a standard flow pattern for ease of use. Error handling is implemented in AutoVote and will give pop-up dialogues alerting the User and then indicating the appropriate action.

The AutoVote printer has LED lights quickly alerting the User to printer status issues. The printer also has an LCD screen that provides a dialogue indicating the printer's status and the steps to return the printer to operating basis.