Product Overview

ES&S Voting System 5.2.4.0

Election Systems & Software, LLC
Revision 1.0. Released: August 2021
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Introduction

The System Overview highlights the features and products included with the Election Systems & Software (ES&S) Voting System 5.2.2.0 (EVS5220). EVS5220 fully complies with the EAC Voluntary Voting System Guidelines, Version 1.0.

ES&S Voting System 5.2.2.0 (EVS5220) presents a fully integrated suite of election management products, including:

- **Electionware® Election Management Software**
- **ExpressVote® Universal Voting System hardware 1.0 and 2.1**
- **DS200® Precinct-based Scanner and Tabulator**
- **DS850® High-Speed Scanner and Tabulator**
- **Election Reporting Manager®**
- **AutoMARK® Voter Assist Terminal**
- **DS450® High-Throughput Scanner and Tabulator**
- **Ancillary Products**
Software

Electionware

User Friendly Navigator helps users access exactly what is needed in the current module.

Quick Help Context-sensitive Quick Help is available in all areas of Electionware.

Easy End-to-End Workflow Enables end-to-end election management, from data capture, ballot layout and configuring equipment to loading and reporting results.

Feedback Flexible yet powerful election management software guides users through the creation of the election, ensuring that all election data, security codes, and machine settings are added correctly to the election definition.

Electionware is the election management software that provides end-to-end election management activities through a powerful and intuitive user interface. Its efficient and flexible design enables jurisdictions of all sizes to manage their elections effectively. Electionware delivers everything needed to run an election, from creating the ballots to reporting the voting results.

Election Reporting Manager (ERM)

ERM is ES&S’ election results reporting program. ERM is used to generate paper and electronic reports for poll workers, candidates, and the media. ERM is designed to display updated election totals on a monitor as ballot data is tabulated. Report editing features enable you to read data from a variety of ballot tabulators, customize your report formats, and generate accurate election results.

ERM is designed to support a wide range of ES&S ballot scanning equipment and produce reports for both central count systems and precinct count systems.
DS200 Precinct-Based Scanner and Tabulator

The DS200 precinct-based scanner and tabulator is a high-resolution, paper-based tabulator that records voter selections from both sides of the ballot simultaneously. It has a large touch screen for voter communication, an integrated thermal printer for limitless Election Day report and results printing, an easy-to-use interface and an internal battery pack for reliable power in the event of a power outage.

The DS200 can scan a variety of ballot sizes, including ExpressVote vote summary cards. It can read ballots in any of four orientations. It uses our patented Positive Target Recognition and Compensation® (PTRAC) and Intelligent Mark Recognition® (IMR) technology to determine what constitutes a mark for a candidate.

Tabulated voter selections are stored to a USB flash drive. The flash drive is removable from the system for transport to a central election location where vote totals are consolidated for reporting. There is also an optional results backup media capability. The DS200 is typically deployed within a carrying case that is secured to the ballot box. The carrying case has wheels and a telescoping handle that allow it to be transported separately and attached to the ballot box at the poll site.
ExpressVote Universal Voting System

The ExpressVote universal voting system is a vote capture device designed for all voters, with an independent voter-verifiable paper record that is digitally scanned for tabulation on a compatible ES&S tabulator.

This system combines paper-based voting with touchscreen technology. The ExpressVote can serve all voters, including those with special needs, allowing voters to cast vote summary cards autonomously. Voters navigate ballot selections using the touch screen, detachable ADA keypad or ADA support peripheral such as a sip-and-puff device or two-position switch. ExpressVote guides voters through the ballot selection process with screen prompts, symbols and ballot audio. Screen controls meet all applicable guidelines for size and readability.

The ExpressVote includes a mandatory vote summary screen that requires voters to confirm or revise selections before printing the vote summary card using the internal thermal printer. Once printed, an ES&S tabulator processes the vote summary card. This device includes an optional secure card container that can serve as a receptacle for ADA voters who prefer a hands-free method to cast their vote summary cards. ES&S has fully integrated the ExpressVote with the existing suite of ES&S voting system products.

Multilingual
See the System Overview document for supported languages.

Instruction Panel
A visual guide that shows voters how to use the ExpressVote.

Touch Screen and Display
Allows voters to easily make vote selections and review their selection.

Card Slot
Where the voter inserts their card to activate selections.

Audio-Tactile Keypad
Enables ADA voters to control audio and navigate the ballot.

Front Access Panel
Headphone jack, a port for a sip-and-puff device or two-position switch, and audio-tactile keypad make the unit ADA friendly.

Visual Aids
High contrast and zoom functionality.

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Visual Aids
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ExpressVote Configurations

Voting Booth
- Privacy screen
- Retractable legs
- Barcode scanner (optional)

Rolling Kiosk
- Privacy screen
- Docking station
- Access compartment
- Secure card container

Standard Table
- Customer-supplied table
- Privacy screen

ADA Table
- ADA table
- Privacy screen
AutoMARK Ballot Marking Device

The AutoMARK is an ADA-compliant ballot marking device. It provides autonomy and voting privacy to voters who are blind, visually impaired, have limited dexterity or physical disabilities, or voters who want to read or hear ballot content in an alternate language; any condition that makes it difficult to traditionally mark a ballot. Voters navigate the ballot using the touchscreen, physical keypad or an ADA support peripheral, such as a sip-and-puff device or two-position switch. The device visually and/or audibly guides the voter through the ballot marking process with screen prompts and symbols, as well as audible voice prompts. Screen controls meet all applicable guidelines for size and readability. Physical keys are shaped and positioned to provide an intuitive voting session and labeled in Braille and text to indicate function.

The AutoMARK includes a mandatory vote summary verification screen that requires voters to confirm or revise selections before marking a paper ballot. The AutoMARK can be configured with AutoCAST, a feature that allows the voter to independently cast a verified ballot into an attached secure ballot box.
Central Count Devices

DS450 High-Throughput Scanner and Tabulator

The DS450 high-throughput scanner and tabulator simultaneously scans the front and back of a paper ballot and/or vote summary card. TruGrip™ technology ensures that multiple sets of rollers are controlling the ballot in the transport at all times. This provides for reliable handling of ballots; even folded ballots. It can also read ballots in any of four orientations.

The DS450 uses our patented PTRAC and IMR technology to determine what constitutes as a mark for a candidate. It sorts tabulated ballots into discrete output bins, based on user-configurable criteria, without interrupting scanning. Optionally, this device may be configured to transmit tabulation results to the results server through a closed network connection rather than physically transporting via USB flash drives.

Patented IMR® and PTRAC®
IMR and PTRAC technology provides unparalleled accuracy that reduces time-consuming manual ballot adjudication.

Touch Screen Display
Walks the operator through every step of the tabulation process.

Output Bins
Sorts ballots and vote summary cards into:
• Requires further review
• Contains write-ins
• Counted

Paper Path Jam Management
LED light tracking feature enables easy management of ballot jams – prevents need to rescan entire batch.

C-Curve
C-Curve efficiently transports ballots into the appropriate output bin.

Ballot Input Tray

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DS850 High-Speed Scanner and Tabulator

The DS850 central scanner and tabulator provides high-speed digital processing. It can scan a variety of ballot sizes, including ExpressVote cards, and it can read ballots in any of four orientations.

The DS850 uses PTRAC and IMR technology to determine what constitutes as a mark for a candidate. It scans, tabulates, and automatically sorts ballots, separating them into one of three discrete output bins, based on user-configurable criteria, without interrupting scanning.

The DS850 is designed with TruGrip™ technology that ensures that multiple sets of rollers are controlling the ballot in the transport at all times. This provides for reliable handling of ballots, even folded ballots. Optionally, this device may be configured to transmit tabulation results to the results server through a closed network connection rather than physically transporting via USB flash drives.
Ancillary Products

Electronic Pollbook

The ExpressPoll gives poll workers a simple-to-operate device that reduces check-in and verification waiting time for voters, increases the accuracy of ballots issued and improves the Election Day experience for all. The ExpressPoll application runs on a tablet which gives poll workers an intuitive, easy-to-understand user interface that’s similar to the digital devices they use every day.

ExpressLink

ExpressLink Application

ExpressLink is a standalone application which interfaces with Pollbook systems and the ExpressVote Activation Card Printer to print the ballot activation code on an ExpressVote activation card. This code on the activation card activates the correct ballot the voter is authorized to vote.

ExpressVote Activation Card Printer

The ExpressVote Activation Card Printer is a small thermal printer used to print the ballot activation code on the ExpressVote activation card.
Ballot on Demand

ES&S offers an ancillary product called Ballot on Demand (BOD). BOD is a process that allows you to print ad hoc ballots. This process eliminates the need for organizing and storing mass quantities of ballots while simultaneously ending ballot shortages. BOD uses the jurisdiction’s election database (created in Electionware Capture) to create BOD files and ballot artwork PDFs. Electionware Print uses the BOD data and ballot artwork to create production-quality ballots with the appropriate ballot style.

Electionware Toolbox

Electionware Toolbox is a set of utilities that can be integrated into the Electionware EMS to enhance the software usability experience and streamline various processes. These add-on utilities include Test Deck and Text to Speech.

**Text to Speech** – The Text to Speech module provides a simplified method for creating the audio files that make up the audible ballot. These audio files may be used with ES&S hardware that is ADA compatible, such as the ExpressVote or AutoMARK. This utility makes the conversion process less time consuming than utilizing the traditional microphone and scripting method.

**Test Deck** – The Test Deck module provides a means for the election official to test the election on each machine that will be used for voting. Vote patterns can be created with automatic ballot marking, and then the ballots can be printed and scanned through an ES&S tabulator to test logic and accuracy of the counting. Additionally, a test pattern file can be created for the ExpressVote that allows automated logic and accuracy testing on the universal voting machine. Test Deck significantly reduces the time, effort, and cost associated with accurate testing and verification of voting and tabulation on the machines used within a jurisdiction.
An Answer for Every Election Challenge

For nearly 40 years, ES&S has helped election officials run successful and secure elections. Today, our products and solutions continue to capture accurate voter intent, reduce waste, improve accessibility and protect elections from outside threats.

**Voter-Verifiable Paper**
Scannable paper cards reassure voters, are easy to store and provide an auditable record.

**Ease of Use**
Our solutions are designed to be as simple and intuitive as possible for voters and poll workers.

**Security**
We work diligently with third parties and government partners to maintain the security of every election.

**Accessible Voting**
Our products use universal design to make voting more accessible to everyone.

**Reduce Waste**
Be more environmentally friendly with product features geared toward a smaller footprint.

**Smart Automation**
Adjudicate ballots faster with innovations that reduce manual post-election labor.

For more information about ES&S and our products and services, visit [www.essvote.com](http://www.essvote.com)