

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF STATE

REPORT CONCERNING THE
ELECTION SYSTEMS AND SOFTWARE EXPRESS POLL 5000
ELECTRONIC POLL BOOK with EZROSTER VERSION 2.7.11,
BRIDGEPOINT 1.6.0.0 AND CARDWRITER VERSIONS 1.1.4, 1.1.5,
AND 1.1.6



Issued by:

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Secretary of the Commonwealth
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**REPORT CONCERNING THE
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AND 1.1.6**

Act 3 of 2002 (Pennsylvania's voter registration law) requires that "the computer list shall be in a form prescribed by the Secretary" for both paper and electronic poll books, 25 Pa.C.S. § 1402(b)(2). On June 24, 2013, the Department of State held a demonstration of Election Systems & Software ("ES&S") ExpressPoll 5000 Electronic Poll Book with EZRoster version 2.7.11 and BridgePoint 1.6.0.0.

A set of Electronic Poll Book Requirements were tested as part of the demonstration, which can be found in Attachment A and a set of BridgePoint Requirements were tested as part of the demonstration, which can be found in Attachment B. The Pennsylvania Department of State's Bureau of Commissions, Elections and Legislation retained Jack Cobb, Laboratory Director of Pro V&V, Inc., as a professional consultant to develop test protocols and test CardWriter versions 1.1.4, 1.1.5, and 1.1.6. CardWriter 1.1.4, CardWriter 1.1.5 and CardWriter 1.1.6 interact with the ExpressPoll 5000 with EZRoster version 2.7.11 and BridgePoint 1.6.0.0 Electronic Poll Book and are a component of the AccuVote TSX Voting System version 4.6.4 with Guardian Election Management Software ("GEMS") version 1.18.25 (collectively referred to as the "AccuVote TSX Voting System"). The CardWriter Functional Verification test cases (Attachment C) were designed to determine whether the component can properly program voter access card media in a general election and a closed primary election.

The Bureau of Commissions, Election and Legislation conducted the test cases and it was demonstrated that the card writing function of CardWriter 1.1.4, CardWriter 1.1.5, and CardWriter 1.1.6, when used in conjunction with the ExpressPoll 5000 with EZRoster version 2.7.11 and BridgePoint 1.6.0.0, properly writes voter access cards for a general election and a closed primary election for one-time use on the AccuVote TSX Voting System.

As a result of the demonstration conducted on June 24, 2013, and after consultation with the Department's staff, the Secretary of the Commonwealth concludes that: (1) the ExpressPoll 5000 with EZRoster version 2.7.11 and BridgePoint 1.6.0.0 meets all requirements of Act 3 and Federal law (see Attachment A), and (2) the card writing function of CardWriter 1.1.4, CardWriter 1.1.5, and CardWriter 1.1.6 can be safely used by voters at elections in conjunction with the ExpressPoll 5000 Electronic Poll Book with EZRoster version 2.7.11, BridgePoint 1.6.0.0 and as a component of the AccuVote TSX Voting System and is hereby approved for use in the Commonwealth of Pennsylvania for all federal, state and municipal elections.

If ES&S makes any changes to the ExpressPoll 5000 with EZRoster version 2.7.11 and BridgePoint 1.6.0.0 that affects its compliance with the requirements of Pennsylvania or Federal law, ES&S must notify the Department of State and schedule a demonstration to review the changes.

As similarly stated in the September 11, 2012, results of the electronic voting system reexamination, if ES&S makes any changes to the CardWriter 1.1.4, CardWriter 1.1.5, or CardWriter 1.1.6 functionality discussed in this report, ES&S must notify the Department of State immediately. Failure to do so may result in the decertification of the ExpressPoll 5000 Electronic Poll Book; CardWriter versions 1.1.4, 1.1.5, 1.1.6; or the AccuVote TSX Voting System in the Commonwealth of Pennsylvania.

Additionally, as stated in the September 11, 2012, results of the electronic voting system reexamination, if ES&S makes any changes to the AccuVote TSX Voting System, ES&S must immediately notify the Department of State and the relevant federal testing authority or laboratory. Failure to do so may result in decertification of the AccuVote TSX Voting System in the Commonwealth of Pennsylvania.

Counties wishing to implement the Express Poll 5000 Electronic Poll Book with EZRoster version 2.7.11, BridgePoint 1.6.0.0 and CardWriter 1.1.4, CardWriter 1.1.5 or CardWriter 1.1.6 may do so county-wide or on an individual precinct-by-precinct basis.

Attachment A

Electronic Poll Book Requirements

Results of the Election Systems and Software Express Poll 5000 with EZROSTER V. 2.7.11 Demonstration

- The computer list shall be in a form prescribed and approved by the Secretary. (25 Pa. C.S. § 1402(b)(2)).
- For each election district, the list shall contain the names of the registered electors – alphabetically by last name. (25 Pa.C.S. § 1402(b)(2)).
- Each page of the list (or each screen) shall contain the name of the county. (25 Pa.C.S. § 1402(b)(2)).
- Each page of the list (or each screen) shall contain the election district. (25 Pa.C.S. § 1402(b)(2)).
- Each page of the list (or each screen) shall contain the date of the election. (25 Pa.C.S. § 1402(b)(2)).
- Each page of the list (or each screen) shall contain the date and time the list was prepared. (25 Pa.C.S. § 1402(b)(2)).

The list must contain:

- A legible signature. (25 Pa.C.S. § 1402(b)(2)).
- The street address. (25 Pa.C.S. § 1402(b)(2)).
- Political party of each registered elector. (25 Pa.C.S. § 1402(b)(2); 4 Pa. Code § 183.11(b)(3)).
- Suitable space for insertion of the signature of the registered elector. (25 P.S. § 3050(a.3); 25 Pa.C.S. § 1402(b)(2)).
- Suitable space for insertion by the proper election official of the number and letter of the stub of the ballot issued to the registered elector or the registered elector's number in the order of admission to the voting systems. (25 P.S. § 3050(a.3); 25 Pa.C.S. § 1402(b)(2)).
- Suitable space for insertion of the initials of the election official who enters the record of voting in the district register. (25 P.S. § 3050(a.3); 25 Pa.C.S. § 1402(b)(2)).
- Indication of whether the elector needs assistance to vote and, if so, the nature of the disability. (25 Pa.C.S. § 1402(b)(2)).

- The date of birth of the registrant. (4 Pa. Code § 183.11(b)(4)).
- The SURE registration number of the registrant. (4 Pa. Code § 183.11(b)(5)).
- An elector's affirmation appears above each signature section and contains the verbiage "I hereby certify that I am qualified to vote in this election." (25 P.S. § 3043).
- An indication of whether the registrant's status is active or inactive. (25 Pa.C.S. § 1901(c); 4 Pa. Code § 183.11(b)(6)).

Flags Required by the SURE System

- For voters who are "Inactive," affirmation is required. (25 Pa.C.S. § 1901(c) and (d)(3); 4 Pa. Code § 183.11).
- "ID Required" - Indication of whether the voter needs to present voter identification. An elector who appears to vote in an election district for the first time must present valid voter identification. (25 P.S. § 3050(a)).
- "Absentee Ballot" – If an elector who voted an absentee ballot is in the municipality on Election Day, he or she must vote in the precinct, and the absentee ballot is voided. (25 P.S. § 3146.6(b)).
- "Must vote in person"- Indication of whether the voter needs to present voter identification if the elector votes for the first time by mail. (Federal: 42 U.S.C. § 15483(b)).

Attachment B

Test Case Identifier: BridgePoint v. 1.6.0.0 Analysis	
Functional Requirements:	BridgePoint software imports the GEMS database, loads the election files for the ExpressPoll 5000, and imports audit logs from the ExpressPoll 5000.
Test Objective: This test will focus on the interfacing points of the BridgePoint software and the ExpressPoll 5000 to ensure the software functions as expected and does not adversely affect operation of the ExpressPoll 5000.	
Test Configuration: The BridgePoint software will be loaded on a laptop/PC.	
Test Method: The method for testing these requirements is defined below: The test steps that will be followed to evaluate the BridgePoint software generally will be: <ul style="list-style-type: none"> • Verify the version of the software • Import election files from the GEMS server • Program the election compact flash for the ExpressPoll 5000 • Verify the ExpressPoll 5000 is able to function as designed • Verify audit log retrieval • Evaluate other features and functions within the application 	
Criteria for Evaluation of the Test Results: The BridgePoint software is able to import the election files, program the election onto a compact flash that can be read by the ExpressPoll 5000.	
Comments:	
Tester Approval: _____ Date: _____ _____	
Test Witness: _____	

Attachment C

Test Case Identifier: Cardwriter Functional Verification (General Election)	
Functional Requirements:	The Express Poll 5000 card writing functionality must be able to program voter access card media with the proper keys to allow for ballot styles based on geographical subdivisions to properly be retrieved and presented to a voter in a General Election
Test Objective: To determine if the card writer functionality of the Express Poll 5000 can properly write smart cards for voter access for one time use.	Test Configuration: Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer. A TSx unit will be loaded with all precincts from the "Pennsylvania Certification General Election."
Test Equipment:	Express Poll 5000, 10 voter access cards, TSx units
Special Procedural Requirements:	None
Assumptions:	None
Step	Description
1000	From the Express Poll unit, encode two voter access cards for each precinct in the General Election. <i>Expected:</i> The voter access cards can be programmed. <i>Actual:</i>
1010	Insert the first Precinct 1 voter access card into the TSx. <i>Expected:</i> The TSx accepts the voter access card and displays the ballot style of Precinct 1. <i>Actual:</i>
1020	Use the designated method to advance the through the ballot. Observe the contests and candidates for Precinct 1 ballot style are displayed. <i>Expected:</i> All contests and candidates are accurately displayed. <i>Actual:</i>
1030	Use the designated method to navigate to the first contest and select the first candidate. <i>Expected:</i> The TSx navigates to the first contest and the selection for the first candidate is input. <i>Actual:</i>
1040	Use the designated method to advance the "Ballot Review." Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to cast the voted selections. <i>Expected:</i> The precinct tabulation device advances to the "Ballot Review" screen. After review, the ballot is cast successfully. <i>Actual:</i>
1050	Remove the ejected voter access card or use the designated method to remove the used voter access card. Reinsert the

	<p>used voter access card.</p> <p><i>Expected:</i> The TSx should give an indication that the voter access card has been used.</p> <p><i>Actual:</i></p>
1060	<p>Insert the second Precinct 1 voter access card into the TSx.</p> <p><i>Expected:</i> The TSx accepts the voter access card and displays the ballot style of Precinct 1.</p> <p><i>Actual:</i></p>
1070	<p>Select the first candidate in every "1 of 1" race, the first N in every "N of M" race, and "Yes" for every Referendum race.</p> <p><i>Expected:</i> Every candidate can be input as described.</p> <p><i>Actual:</i></p>
1080	<p>Use the designated method to advance the "Ballot Review." Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to cast the voted selections.</p> <p><i>Expected:</i> The precinct tabulation device advances to the "Ballot Review" screen. After review, the ballot is cast successfully.</p> <p><i>Actual:</i></p>
1090	<p>Repeat steps 1010- 1080 excluding step 1050 for each precinct.</p> <p><i>Expected:</i> Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____</p> <p><i>Actual:</i></p>
1080	<p>Close the polls and print the closed polls report tape.</p> <p><i>Expected:</i> The polls closed and a report is printed.</p> <p><i>Actual:</i></p>
1090	<p>Review the closed polls report to ensure all selections input above are recorded and reported correctly.</p>

	<p><i>Expected:</i> The closed polls report presents the accumulated totals for the selections input above.</p> <p><i>Actual:</i></p>
<p>Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voter access cards are accepted and display the proper ballot style and cannot be reused.</p>	

Test Case Identifier: Cardwriter Functional Verification (Closed Primary Election)	
Functional Requirements:	The Express Poll 5000 card writing functionality must be able to program voter access card media with the proper keys to allow for ballot styles based on geographical subdivisions and party affiliation to properly be retrieved and presented to a voter in a Closed Primary Election
Test Objective: To determine if the card writer functionality of the Express Poll 5000 can properly write smart cards for voter access for one time use.	Test Configuration: Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer. A TSx unit will be loaded with all precincts and parties from the "Pennsylvania Certification Closed Primary Election."
Test Equipment:	Express Poll 5000, 10 voter access cards, TSx units
Special Procedural Requirements:	None
Assumptions:	None
Step	Description
1000	From the Express Poll unit, encode one voter access card for each party and each precinct in the Closed Primary Election. <i>Expected:</i> The voter access cards can be programmed. <i>Actual:</i>
1010	Insert the Democratic voter access card for Precinct 1 into the TSx. <i>Expected:</i> The TSx accepts the voter access card and displays the ballot style for Democratic party for Precinct 1. <i>Actual:</i>
1020	Use the designated method to advance through the ballot. Observe the contests and candidates for Democratic party for Precinct 1 ballot style are displayed <i>Expected:</i> All contests and candidates are accurately displayed. <i>Actual:</i>
1030	Use the designated method to navigate to the first contest and select the first candidate. <i>Expected:</i> The TSx navigates to the first contest and the selection for the first candidate is input. <i>Actual:</i>
1040	Use the designated method to advance the "Ballot Review." Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to cast the voted selections. <i>Expected:</i> The precinct tabulation device advances to the "Ballot Review" screen. After review, the ballot is cast successfully. <i>Actual:</i>
1050	Remove the ejected voter access card or use the designated method to remove the used voter access card. Reinsert the

	<p>used voter access card.</p> <p><i>Expected:</i> The TSx should give an indication that the voter access card has been used.</p> <p><i>Actual:</i></p>
1060	<p>Insert the Republican voter access card for Precinct 1 voter access card into the TSx.</p> <p><i>Expected:</i> The TSx accepts the voter access card and displays the ballot style of Precinct 1.</p> <p><i>Actual:</i></p>
1070	<p>Select the first candidate in every "1 of 1" race, the first N in every "N of M" race, and "Yes" for every Referendum race.</p> <p><i>Expected:</i> Every candidate can be input as described.</p> <p><i>Actual:</i></p>
1080	<p>Use the designated method to advance the "Ballot Review." Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to cast the voted selections.</p> <p><i>Expected:</i> The precinct tabulation device advances to the "Ballot Review" screen. After review, the ballot is cast successfully.</p> <p><i>Actual:</i></p>
1090	<p>Repeat steps 1010- 1080 excluding step 1050 for each precinct.</p> <p><i>Expected:</i> Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____</p> <p><i>Actual:</i></p>
1080	<p>Close the polls and print the closed polls report tape.</p> <p><i>Expected:</i> The polls closed and a report is printed.</p> <p><i>Actual:</i></p>
1090	<p>Review the closed polls report to ensure all selections input above are recorded and reported correctly.</p> <p><i>Expected:</i> The closed polls report presents the accumulated totals for the selections input above.</p> <p><i>Actual:</i></p>

Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voter access cards are accepted and display the proper ballot style and cannot be reused.