

Voting System Qualification Test Report
ES&S, Inc. Release 4.0.0.3, Version 1, (Revised)
Public Report

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Florida Department of State
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Executive Summary

Elections Systems and Software, Inc. has completed revised qualification for “ES&S Voting System, Release 4.0.0.3, Version 1.” The Division of Elections has approved this voting system in accordance with Section 101.5605 (3)(b), F.S., and offered its notice of certification as #100209-ES&S, (Revised).

This voting system is the same as the certified “*Release 4.0.0.3, Version 1*” and includes the revised ERM (Version 7.7.1.0) to correct the ASCII export file and allows coded ballots for reporting groups within groups 6 to 14. In addition, the revised certification includes the option for the AutoCAST and its plastic ballot box for the AutoMARK Voter Assist Terminal (VAT).

Election Reporting Manager Version 7.7.1.0:

The objective is to examine two corrections with Election Reporting Manager (ERM) version 7.7.0.0 under ES&S Release 4.0.0.3, Version 1. ERM 7.7.0.0 is an enhancement from 5 reporting groups to 14 groups. However, Miami-Dade and Lee County encountered a problem with the ASCII export function and coded (i.e., provisional) ballots with the iVotronic DRE. Both of these items did not function as intended for reporting groups 6 to 14. ES&S performed remedial correction and provided the source code to SysTest Labs, a voting system test laboratory (VSTL). SysTest examined the changes and produced the executable, both of which were provided to Florida Division of Elections.

Unit Under Test:

Bureau of Voting Systems Certification (BVSC) acquired ERM 7.7.1.0 source code and executable from SysTest. In addition, BVSC installed the election from the previous examination of ERM 7.7.0.0.

Test:

The test entailed a review of ERM 7.7.1.0 source code, installation of the executable, and testing of this module. The test used the previous election’s results and also tested uploading of coded (provisional) ballots from an iVotronic DRE. BVSC produced the ASCII export file and verified that the data was in its proper field locations.

Test Results:

BVSC voted multiple regular ballots and coded (provisional) ballots. BVSC then uploaded the results into a group beyond the original five reporting groups. BVSC processed the coded ballots to re-create the canvassing process. The results of the uploaded coded ballots and the proper reporting groups in the ASCII file were successful.

Conclusion:

Examination of ERM version 7.7.1.0 to fix ERM version 7.7.0.0 was found to be acceptable. BVSC recommends revision of ES&S Release 4.0.0.3, Version 1 with ERM version 7.7.1.0. BVSC has completed testing of the AutoCAST ballot box and recommends adding the AutoMARK AutoCAST and its plastic ballot box to ES&S Release 4.0.0.3, Version 1.

Automark Autocast Ballot Box Test:

The objective is to determine the capacity, durability, and usability of the prototype ballot box for use with AutoMARK's AutoCAST option.

The AutoMARK Voter Assist Terminal (VAT) has an option for the voter to request its marked ballot to be returned to the voter or to cast their ballot into the ballot box. This option is known as AutoCAST using a ballot box.

Unit Under Test:

The AutoCAST ballot box is a plastic box that attached to the AutoMARK VAT. The ballot box has two access doors. The lower access door has a method allowing an election official to remove cast ballots and also has a method for securing the door. The top access door has a method for securing the door when the ballot box is not installed on the AutoMARK VAT. When installed into the AutoMARK VAT, this door is open to allow the AutoMARK VAT to eject the voter's cast ballot into the ballot box. The election official can use one or both access doors to allow removing ballot from the box. Both access doors use molded flange with a hole to allow using wire or plastic tamper evident seals. The method for attaching the ballot box to the AutoMARK VAT uses a metal bracket attached to the bottom of the AutoMARK VAT. The ballot box slides onto the bracket. On the left and right side of the bracket and also on the ballot box are two securing areas for installing wire or plastic tamper evident seals.

Test Plan:

Bureau of Voting Systems Certification (BVSC) conducted two tests: First, BVSC examined Premier AutoMARK VAT model A300 with PVR version 1.3.3460, printer engine board (PEB) 1.70, WinCE 5.00.20 and using 14" ballots. Second, BVSC examined ES&S AutoMARK VAT model A200 with version 1.4.3223, PEB 1.70, WinCE 5.00.19 and using 17" ballots.

Test Results:

BVCS examined model A300 with 14" ballots and noted an indication of a jam after 156 ballots cast. This action produced a unique sound when being cast. It sounded like the ballot was brushing up against the side of the ballot box. BVSC noted that the ballot had not dropped completely into the ballot box. BVSC inserted the next ballot and cast that ballot. The action of casting another ballot caused the previous ballot to be pushed the rest of the way into the ballot box. The ballot box and the AutoMARK VAT pathway were clear. BVSC continued feeding ballots without incident till 193 ballots had been cast. That ballot made a similar sound as the previous jam. The ballot could be seen in the space between the AutoMARK VAT and the AutoCAST ballot box. BVSC then inserted another ballot and that ballot did not clear the previous ballot and was crumpled. As a result, BVSC considered that this ballot box was at its capacity.

For the second part of the test, BVSC examined the model A200 with 17" ballots. An indication of a jam was encountered after 146 ballots cast. This action also produced a unique sound when being cast, similar to the model A300 with the 14" ballots. It sounded like the ballot was brushing up against the side of the ballot box, just as in the A300 test. BVSC noted that the ballot had not dropped completely into the ballot box. BVSC inserted another ballot and cast that ballot. The action of casting another ballot caused the previous ballot to be pushed the rest of the way into the ballot box. The ballot box and the AutoMARK VAT pathway were clear.

BVSC continued feeding ballots without incident till 162 ballots had been cast. That ballot made a similar sound as the previous jam. The ballot could be seen in the space between the AutoMARK VAT and the AutoCAST ballot box. BVSC then inserted another ballot and cast that ballot. This ballot did not clear the previous ballot and was curled. As a result, BVSC considered that this ballot box was at its capacity.

Conclusion:

BVSC considers that the AutoCAST ballot box is acceptable. The ballot box has maximum capacity of 140 ballots based on 14" and 17" ballots. The ballot box is of durable plastic. The installation of the metal bracket is fairly simple requiring only a Philips head screw driver. The security is typical flanges used in secured areas fastened by wire or plastic tamper evident seals. The two access doors have integrated hinge pins that could break. Therefore, BVSC recommends having a second set of doors on hand for replacement, when needed. Also, BVSC recommends a method to identify the precinct ID on the ballot box (Section 101.24, Florida Statutes), such as using a transparent envelope attached on the box. The ballot box should have the name "BALLOT BOX" on its exterior for public awareness.