



United States Election Assistance Commission



Certificate of Conformance

**ES&S Unity 3.2.0.0**  
Election Systems & Software

The voting system identified on this certificate has been evaluated at an accredited voting system testing laboratory for conformance to the *2002 Voting System Standards (2002 VSS)*. Components evaluated for this certification are detailed in the attached Scope of Certification document. This certificate applies only to the specific version and release of the product in its evaluated configuration. The evaluation has been verified by the EAC in accordance with the provisions of the *EAC Voting System Testing and Certification Program Manual* and the conclusions of the testing laboratory in the test report are consistent with the evidence adduced. This certificate is not an endorsement of the product by any agency of the U.S. Government and no warranty of the product is either expressed or implied.

Product Name: Unity

Model or Version: Version 3.2.0.0

Name of VSTL: iBeta Quality Assurance

EAC Certification Number: ESSUnity3200

Date Issued: July 21, 2009

A handwritten signature in black ink, appearing to read "S. S. Unity", is written over a horizontal line.

*Executive Director, U.S. Election Assistance Commission*

Scope of Certification Attached



# Scope of Certification

Manufacturer: **Election Systems and Software Inc. (ES&S)**

Product : **Unity 3.2.0.0 Voting System**

Laboratory: **iBeta Quality Assurance** Certificate: **ESSUnity3200** Standard: **VSS 2002** Date: **07/21/2009**

This document describes the scope of the validation and certification of the system defined above. Any use, configuration changes, revision changes, additions or subtractions from the described system are not included in this evaluation.

## Significance of EAC Certification

An EAC certification is an official recognition that a voting system (in a specific configuration or configurations) has been tested to and has met an identified set of Federal voting system standards. An EAC certification is **not**:

- An endorsement of a Manufacturer, voting system, or any of the system's components.
- A Federal warranty of the voting system or any of its components.
- A determination that a voting system, when fielded, will be operated in a manner that meets all HAVA requirements.
- A substitute for State or local certification and testing.
- A determination that the system is ready for use in an election.
- A determination that any particular component of a certified system is itself certified for use outside the certified configuration.

## Representation of EAC Certification

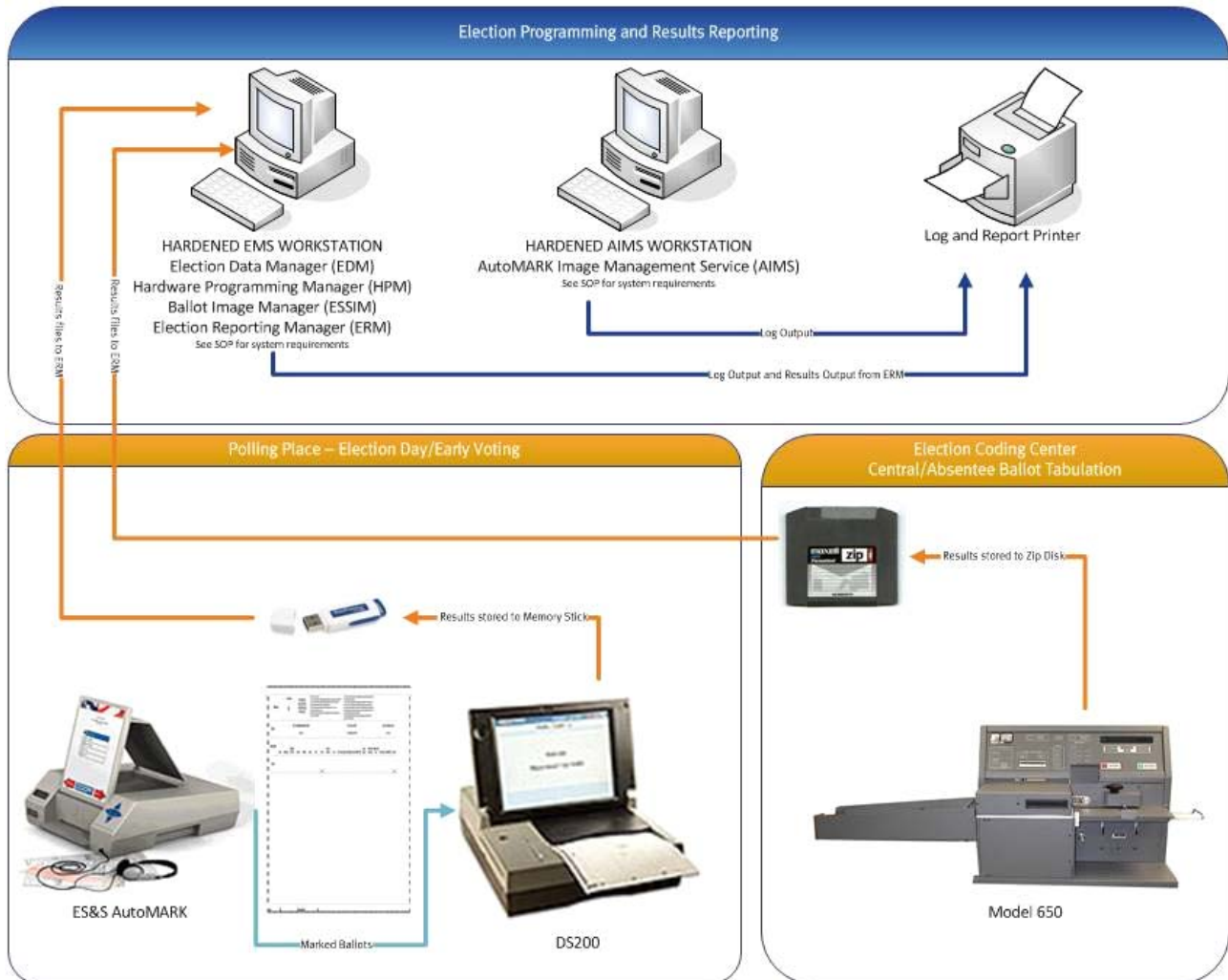
Manufacturers may not represent or imply that a voting system is certified unless it has received a Certificate of Conformance for that system. Statements regarding EAC certification in brochures, on Web sites, on displays, and in advertising/sales literature must be made solely in reference to specific systems. Any action by a Manufacturer to suggest EAC endorsement of its product or organization is strictly prohibited and may result in a Manufacturer's suspension or other action pursuant to Federal civil and criminal law.

## Language capability:

In addition to English, the voting system has the capability of presenting the ballot, ballot selections, review screens and instructions in Spanish.

## Components Included:

This section provides information describing the components and revision level of the primary components included in this Validation.



System Component	S/W or F/W Revision	H/W Revision	Evaluated Operating System or COTS	Comments
DS200	Firmware v. 1.3.10.0	Hardware v. 1.2.0 v. 1.2.1	Linux Kernel 2.6.16.27	
Model M650	Firmware v. 2.2.2.0	Hardware v. 1.1 v. 1.2	QNX Kernel 4.25	
AutoMark Model A100-00	1.3.2906	Rev. 1.0 Printer Engine Board (PEB) 1.65 Single Board Computer (SBC) 1.0	WinCE 5.0.1400	

<i>System Component</i>	<i>S/W or F/W Revision</i>	<i>H/W Revision</i>	<i>Evaluated Operating System or COTS</i>	<i>Comments</i>
<b>AutoMark</b> Model A200-00	1.3.2906	Rev. 1.1 Printer Engine Board (PEB) 1.65 Single Board Computer (SBC) 2.0	WinCE 5.0.1400	
<b>AutoMark</b> Model A200-00	1.3.2906	Rev. 1.3.1 Printer Engine Board (PEB) 1.65 Single Board Computer (SBC) 2.5	WinCE 5.00.19	
<b>AutoMark</b> Model A200-00	1.3.2906	Rev. 1.3.1 Printer Engine Board (PEB) 1.70 Single Board Computer (SBC) 2.5	WinCE 5.00.19	
<b>Ballot Prep and Central Count</b>				
<b>Election Data Manager</b>	v. 7.8.1.0	-----	See Below	
<b>ES&amp;S Ballot Image Manager (ESSIM)</b>	v. 7.7.1.0	-----	See Below	
<b>Audit Manager (AM)</b>	v. 7.5.2.0	-----	See Below	
<b>Hardware Programming Manager (HPM)</b>	v. 5.7.1.0	-----	See Below	
<b>Election Reporting Manager (ERM)</b>	v. 7.5.4.0	-----	See Below	
Desktop	-----	Dell GX260 computer desktop with monitor, keyboard & mouse	Dell	PC, 1 GHz or faster processor, 512 MB RAM, 40 GB hard drive, 48x CD-ROM or DVD drive, 3.5-inch drive, Super VGA (800x600) or higher resolution video adapter and monitor, appropriate drivers
Laptop	-----	Dell Latitude 600, Model #PP05L	Dell	Intel Pentium Processor 1400 MHz 587 MHz 1.00 GB Ram
Windows	XP Professional, 2002 SP 3	-----	Microsoft Corporation	
Zip Drive	-----	Z250USBPCMBP	Iomega	

<i>System Component</i>	<i>S/W or F/W Revision</i>	<i>H/W Revision</i>	<i>Evaluated Operating System or COTS</i>	<i>Comments</i>
San Disk Reader/Writer	-----	Image mate CF Models #SDDR-91 & #SDDR-92	SanDisk	
Printer	-----	HP LaserJet Inkjet Printer HP4050N	HP	
Visual Studio	6.5 SP5	-----	Microsoft Corporation	
Codebase	6.5 rev 3	-----	Sequiter	
Crystal Reports	9.0	-----	Seagate	
Xerces XML Parser	2.7	-----	Apache	
RM/Cobol	v.11.01	-----	Cobol	
Adobe Acrobat Standard	V9	-----	Adobe	
Adobe Type Manager Light	None	-----	Adobe	
Adobe Type Basics	none	-----	Adobe	
Anti Virus	2009 for Windows XP Pro	-----	Norton	
<b>AIMS</b>				
<b>AIMS (Automark information Management System)</b>	v. 1.3.157	Dell Optiplex GX270 computer desktops with monitor, keyboard & mouse (AIMS)	-----	PC, 2.2 GHz Pentium 4 minimum, 256 MB memory minimum, 20 GB hard drive minimum, CD-ROM, USB port, Flash memory card drive.
MS Excel	V 5	-----	Microsoft	
Drivers	Not specified	-----	ScanDisk	
.NET Framework	Not specified	-----	Microsoft	
Anti Virus	2009 for Windows XP Pro	-----	Norton	

### System Limitations

This table depicts the limits the system has been tested and certified to meet.

<b>Characteristic</b>	<b>Limiting Component</b>	<b>Limit</b>	<b>Comment</b>
Maximum Precincts in Election	HPM/ERM	2900	
Maximum Contests in Election		Depends on Content	
Maximum Candidates/ Counters in Election	ERM	21,000	M650 max of 3,750
Maximum Candidates/ Counters in Precinct	ERM Import	1,000	
Maximum Ballot Styles in Election	HPM	5,000	
Maximum Contests in a Ballot Style	HPM	1,100	
Maximum Candidates in a Contest	HPM	175	
Maximum Count for any Precinct Element	ERM	999,000	65,535 on import
Maximum Ballot Styles in a Precinct	HPM	5,000	DS200 40 ballot styles max
Maximum Number of Parties	HPM	18	
Maximum Vote For in Contest	HPM	90	

**DS200 Unique**

<b>#</b>	<b>Limitation</b>
1	Does not support more than 30 type codes, 40 split codes, and 1639 sequence codes
2	An early vote station will support a maximum of 9999 precincts.
3	An early vote station will not be able to use a modem to transmit totals
4	An early vote station will not be able print a precinct by precinct report by default

**Model M650 Unique**

<b>#</b>	<b>Limitation</b>
1	Ballots must be fed in one particular direction
2	Does not support more than 100 ballot styles for a single absentee precinct.

**Functionality**

2002 VSS Supported Functionality Declaration Unity 3.2.0.0

<b>Feature/Characteristic</b>	<b>Yes/No</b>	<b>Comment</b>
<i>Voter Verified Paper Audit Trails</i>		
VVPAT		
<i>Accessibility (vol. 1. sect. 2.2.7)</i>		
Forward Approach	Yes	
Parallel (Side) Approach		
<i>Closed Primary (vol. 1. sect. 2.2.8.2)</i>		
Primary: Closed	Yes	
<i>Open Primary (vol. 1. sect. 2.2.8.2)</i>		
Primary: Open Standard (provide definition of how supported)	Yes	
Primary: Open Blanket (provide definition of how supported)	Yes	
<i>Partisan &amp; Non-Partisan: (vol. 1. sect. 2.2.8.2)</i>		
Partisan & Non-Partisan: Vote for 1 of N race	Yes	
Partisan & Non-Partisan: Multi-member (“vote for N of M”) board races	Yes	
Partisan & Non-Partisan: “vote for 1” race with a single candidate and write-in voting	Yes	

<b>Feature/Characteristic</b>	<b>Yes/No</b>	<b>Comment</b>
Partisan & Non-Partisan “vote for 1” race with no declared candidates and write-in voting	Yes	
<i>Write-In Voting: (vol. 1. sect. 2.2.8.2)</i>		
Write-in Voting: System default is a voting position identified for write-ins.	Yes	
Write-in Voting: Without selecting a write in position.	Yes	
Write-in: With No Declared Candidates	Yes	
Write-in: Identification of write-ins for resolution at central count	Yes	
<i>Primary Presidential Delegation Nominations &amp; Slates: (vol. 1. sect. 2.2.8.2)</i>		
Primary Presidential Delegation Nominations: Displayed delegate slates for each presidential party		
Slate & Group Voting: one selection votes the slate.		
<i>Ballot Rotation: (vol. 1. sect. 2.2.8.2)</i>		
Rotation of Names within an Office; define all supported rotation methods for location on the ballot and vote tabulation/reporting	Yes	
<i>Straight Party Voting: (vol. 1. sect. 2.2.8.2)</i>		
Straight Party: A single selection for partisan races in a general election	Yes	
Straight Party: Vote for each candidate individually	Yes	
Straight Party: Modify straight party selections with crossover votes	Yes	
Straight Party: A race without a candidate for one party	Yes	
Straight Party: “N of M race (where “N”>1)	Yes	
Straight Party: Excludes a partisan contest from the straight party selection	Yes	
<i>Cross-Party Endorsement: (vol. 1. sect. 2.2.8.2)</i>		
Cross party endorsements, multiple parties endorse one candidate.	Yes	
<i>Split Precincts: (vol. 1. sect. 2.2.8.2)</i>		
Split Precincts: Multiple ballot styles	Yes	
Split Precincts: P & M system support splits with correct contests and ballot identification of each split	Yes	
Split Precincts: DRE matches voter to all applicable races.		
Split Precincts: Reporting of voter counts (# of voters) to the precinct split level; Reporting of vote totals is to the precinct level	Yes	We can list # of voters.
<i>Vote N of M: (vol. 1. sect. 2.2.8.2)</i>		
Vote for N of M: Counts each selected candidate, if the maximum is not exceeded.	Yes	
Vote for N of M: Invalidates all candidates in an overvote (paper)	Yes	
<i>Recall Issues, with options: (vol. 1. sect. 2.2.8.2)</i>		
Recall Issues with Options: Simple Yes/No with separate race/election. (Vote Yes or No Question)		
Recall Issues with Options: Retain is the first option, Replacement candidate for the second or more options (Vote 1 of M)		
Recall Issues with Options: Two contests with access to a second contest conditional upon a specific vote in contest one. (Must vote Yes to vote in 2 <sup>nd</sup> contest.)		

<b>Feature/Characteristic</b>	<b>Yes/No</b>	<b>Comment</b>
Recall Issues with Options: Two contests with access to a second contest conditional upon any vote in contest one. (Must vote Yes to vote in 2 <sup>nd</sup> contest.)		Overtured - US District Court 7/29/03: CA Election Code sect. 11383
<i>Cumulative Voting (vol. 1. sect. 2.2.8.2)</i>		
Cumulative Voting: Voters are permitted to cast, as many votes as there are seats to be filled for one or more candidates. Voters are not limited to giving only one vote to a candidate. Instead, they can put multiple votes on one or more candidate.		
<i>Ranked Order Voting (vol. 1. sect. 2.2.8.2)</i>		
Ranked Order Voting: Voters can write in a ranked vote.		
Ranked Order Voting: A ballot stops being counting when all ranked choices have been eliminated		
Ranked Order Voting: A ballot with a skipped rank counts the vote for the next rank.		
Ranked Order Voting: Voters rank candidates in a contest in order of choice. A candidate receiving a majority of the first choice votes wins. If no candidate receives a majority of first choice votes, the last place candidate is deleted, each ballot cast for the deleted candidate counts for the second choice candidate listed on the ballot. The process of eliminating the last place candidate and recounting the ballots continues until one candidate receives a majority of the vote		
Ranked Order Voting: A ballot with two choices ranked the same, stops being counted at the point of two similarly ranked choices.		
Ranked Order Voting: The total number of votes for two or more candidates with the least votes is less than the votes of the candidate with the next highest number of votes, the candidates with the least votes are eliminated simultaneously and their votes transferred to the next-ranked continuing candidate.		
<i>Provisional or Challenged Ballots (vol. 1. sect. 2.2.8.2)</i>		
Provisional/Challenged Ballots: A voted provisional ballots is identified but not included in the tabulation, but can be added in the central count.	Yes	
Provisional/Challenged Ballots: A voted provisional ballots is included in the tabulation, but is identified and can be subtracted in the central count	Yes	
Provisional/Challenged Ballots: Provisional ballots maintain the secrecy of the ballot.	Yes	
<i>Overvotes (vol. 1. sect. 4.4.4) Must support for specific type of voting system</i>		
Overvotes: P & M: Overvote invalidates the vote. Define how overvotes are counted.	Yes	
Overvotes: DRE: Prevented from or requires correction of overvoting.		
Overvotes: If a system does not prevent overvotes, it must count them. Define how overvotes are counted.	Yes	
Overvotes: DRE systems that provide a method to data enter absentee votes must account for overvotes.		
<i>Undervotes (vol. 1. sect. 4.4.4)</i>		
Undervotes: System counts undervotes cast for accounting purposes	Yes	



<b>Feature/Characteristic</b>	<b>Yes/No</b>	<b>Comment</b>
<i>Blank Ballots (vol. 1. sect. 2.4.3.3, 3.2.5.1.2, 3.2.5.1.3, &amp; 4.4.4)</i>		
Totally Blank Ballots: Any blank ballot alert is tested.	Yes	
Totally Blank Ballots: If blank ballots are not immediately processed, there must be a provision to recognize and accept them	Yes	
Totally Blank Ballots: If operators can access a blank ballot, there must be a provision for resolution.	Yes	
<i>Display/Printing Multi-Lingual Ballots (vol. 1. sect. 2.3.1.3.1.a)</i>		<i>Must support one</i>
Spanish	Yes	
Alaska Native (Other Group specified)		
Aleut		
Athabascan		
Eskimo		
Native (Other Group Specified)		
Chinese		
Filipino		
Japanese		
Korean		
Vietnamese		
Apache		
Cent/So American		
Cheyenne		
Chickasaw		
Choctaw		
Navajo		
Other Tribe-Specified		
Paiute		
Pueblo		
Seminole		
Shoshone		
Sioux		
Tohono O'Odham		
Tribe not specified		
Ute		
Yaqui		
Yuman		
<i>Demonstrates the voting system capability to handle the designated language groups. (vol. 1. sect. 2.3.1.3.1.a)</i>		
Default language (English),	Yes	
Secondary language using a Western European font		
Ideographic language (such as Chinese or Korean),		
Non-written languages requiring audio support		