

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:

Name of VSTL: Wyle Laboratories

EAC Certification Number: ESSUnity3400

Version 3.4.0.0

Date Issued: October 31, 2012

Der. Neller

Chief Operating Officer and Acting Executive Director, U.S. Election Assistance Commission Scope of Certification Attached Manufacturer: Election Systems & Software System Name: Unity 3.4.0.0 Certificate: ESSUnity3400 Laboratory:Wyle LaboratoriesStandard:VSS 2002Date:October 31, 2012



# Scope of Certification

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.

## System Overview:

ES&S Unity 3.4.0.0 is comprised of the AutoMARK Voter Assist Terminal (AutoMARK), Model 100 (M100), DS200 Precinct Digital Scanner (DS200), DS850 high-speed Central Count Digital Scanner, Model 650 high-speed Central Count Scanner (M650), Audit Manager (AM), Election Data Manager (EDM) and ES&S Ballot Image Manager(ESSIM), AutoMARK Information Management System (AIMS), Hardware Program Manager (HPM), Election Reporting Manager (ERM), Log Monitor Service, and VAT Previewer.

 AutoMARK Voter Assist Terminal enables voters who are visually or physically impaired and voters more comfortable reading or hearing instructions and choices in an alternative language to privately mark optical scan ballots. The AutoMARK supports navigation through touchscreen, physical keypad or ADA support peripheral such as a sip and puff device or two position switch.

- The ES&S Model 100 is a precinct-based, voter-activated paper ballot tabulator. The system uses Intelligent Mark Recognition (IMR) visible light scanning technology to accurately detect completed ballot targets. The Model 100 accepts ballots inserted in any orientation – top first, face up; bottom first, face down; etc. Optical sensors simultaneously read both sides of the ballot, and accurately record voter selections, as the Counter passes the ballot to the integrated ballot box.
- DS200 digital scanner is a paper ballot tabulator designed for use as a polling place scanner. After the voter makes their selections on their paper ballot, their ballot is inserted into the unit for immediate tabulation. Both sides of the ballot are scanned at the same time using a high-resolution image-scanning device that produces ballot images.
- The DS850 is a high-speed, digital scan central ballot counter that uses cameras and imaging algorithms to capture voter selections on the front and back of a ballot, evaluate results and then sort ballots into discrete bins without interrupting scanning. A dedicated audit printer generates a continuous event log. Machine level reports are produced from a second, laser printer. The scanner saves voter selections and ballot images to an internal hard disk and exports results to a USB Memory stick for processing with Election Reporting Manager.
- M650 high-speed central count scanner is programmed by jurisdiction officials for a specific election with an election definition from a Zip disk. M650 prints a continuous audit log to a dedicated audit log printer and can print results reports directly from the scanner to a second connected printer. The scanner saves results to a Zip disk that officials can use to format and print results from a PC running Election Reporting Manager.
- Audit Manager runs in the background of the other Unity programs and provides password security and a real-time audit log of all user inputs and system outputs. Election coders use Audit Manager to set Unity system passwords and track user activity.
- Election Data Manager (EDM) is used to enter the election definition. Typically, a master election database is created one time and contains all precincts, districts, and precinct and district relationships. This master file is then used to build each election-specific file to which election-specific contests can be manually added or merged from a previous election file.
- ES&S Ballot Image Manager (ESSIM) is a desktop publishing tool that allows users to design and print ES&S paper ballots. ESSIM uses ballot style information created by EDM to display the WYSIWYG ballots. Users can then apply typographic formatting (font, size, attributes, etc.) to individual components of the ballot. Text and graphic frames can also be added to the ballot.
- AutoMARK Management Information System (AIMS) is composed of a compatible PC computer and the AIMS application software that manages all of the information required by the AutoMARK Voter Assist Terminal (VAT) for an election. AIMS imports data configured in ESSIM to configure the audio and visual ballot presentation for the AutoMARK and to mark inserted ballots.
- Hardware Program Manager (HPM) enables the user to import, format, and convert the election file; define districts; specify election contests and candidates; create election definitions for ballot scanning equipment; burn PCMCIA Cards, Zip Disks, Compact Flash

Cards or USB media device. The Hardware Programming Manager is primarily used for converting the election IFC file for use with the Election Reporting Manager and for creating and loading election parameters; however, it may also be used for coding the election.

• Election Reporting Manager (ERM) is ES&S election results reporting program. ERM generates paper and electronic reports for election workers, candidates, and the media. ERM can also display updated election totals on a monitor as ballot data is tabulated, and it can send results reports directly to media outlets.

# Certified System before Modification:

Unity 3.2.1.0

## Anomalies and/or Additions addressed in Unity 3.4.0.0:

For the ES&S Unity 3.4.0.0 Voting System, Wyle only tested the DS200 for modifications, inclusion and integration of the DS850, and both interfaces with the EMS.

### Mark definition:

ES&S' declared level mark recognition for the DS200 and DS850 is a mark across the oval that is 0.2" long x 0.03" wide at any direction.

**Tested Marking Devices:** 

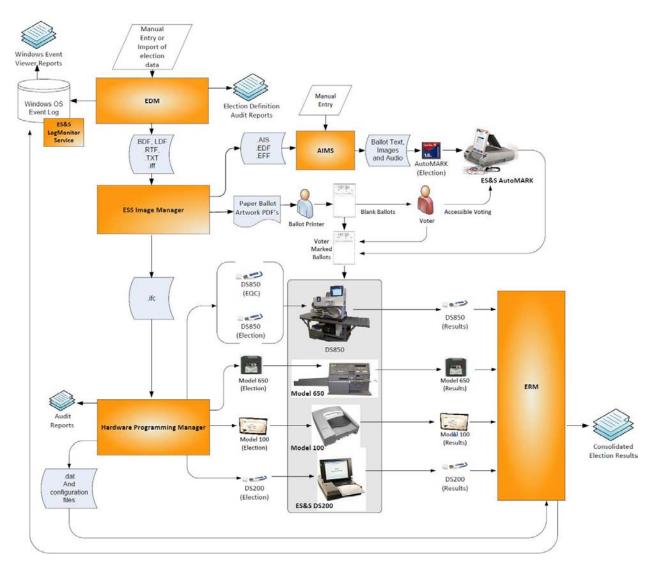
Bic Grip Roller Pen

## Language capability:

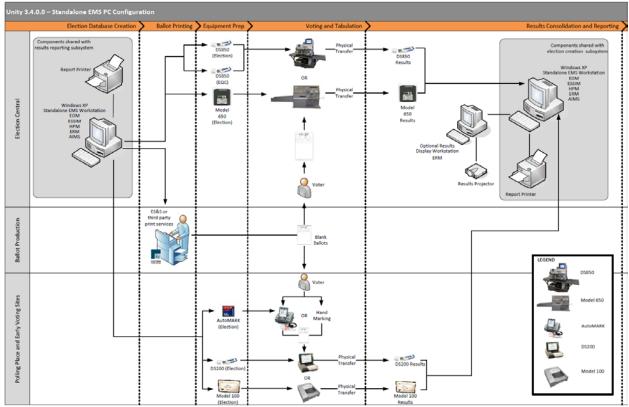
Unity 3.4.0.0 supports only English and Spanish ballot languages.

# **Components Included:**

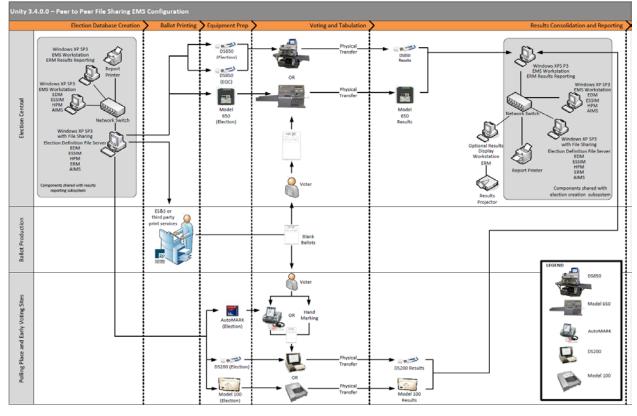
This section provides information describing the components and revision level of the primary components included in this Certification.

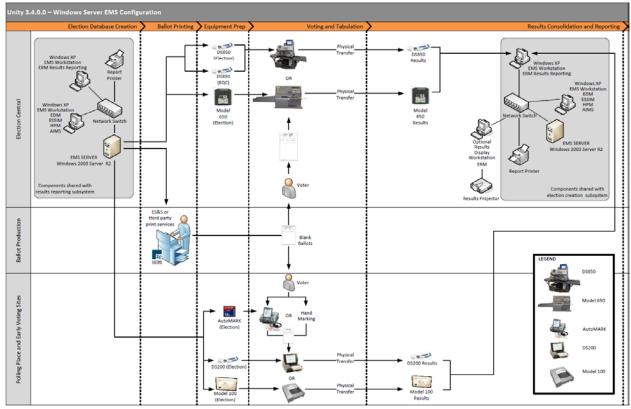


#### Standalone System – Single EMS Workstation



Shared EMS File Server – Peer to Peer File Sharing with Windows XP





#### Local EMS Network with Windows 2003 Server

| System<br>Component | Software or Firmware<br>Version | Hardware<br>Version | Operating<br>System or COTS | Comments           |
|---------------------|---------------------------------|---------------------|-----------------------------|--------------------|
| DS200               | 1.6.1.0                         | 1.2                 |                             | Precinct Digital   |
|                     |                                 |                     |                             | Scanner            |
| M100                | 5.4.4.5                         | 1.3                 |                             | Precinct Optical   |
|                     |                                 |                     |                             | Scanner            |
| Model 650           | 2.2.2.0                         | 1.1, 1.2            |                             | Central Count      |
|                     |                                 |                     |                             | Scanner, high-     |
|                     |                                 |                     |                             | speed              |
| AutoMARK A100       | 1.3.2907                        | 1.0                 |                             | ADA Ballot         |
|                     |                                 |                     |                             | Marking Device     |
| AutoMARK A200       | 1.3.2907                        | 1.1, 1.3            |                             | ADA Ballot         |
|                     |                                 |                     |                             | Marking Device     |
| DS850               | 2.2.0.0                         | 1.0                 |                             | Central Count      |
|                     |                                 |                     |                             | Scanner, high-     |
|                     |                                 |                     |                             | speed              |
| Ballot Box          |                                 | 1.2, 1.3            |                             | Plastic ballot box |
| Hardware            |                                 |                     |                             |                    |
| Ballot Box          |                                 | 1.0, 1.1, 1.2       |                             | Metal ballot box   |
| Hardware            |                                 |                     |                             | with/without       |

| System           | Software or Firmware | Hardware       | Operating      | Comments                    |
|------------------|----------------------|----------------|----------------|-----------------------------|
| Component        | Version              | Version        | System or COTS | Comments                    |
|                  |                      |                |                | diverter                    |
| Audit Manager    | 7.5.2.0              |                |                |                             |
| (AM)             |                      |                |                |                             |
| Election Data    | 7.8.1.0              |                |                |                             |
| Manager (EDM)    |                      |                |                |                             |
| ESS Ballot Image | 7.7.1.0              |                |                |                             |
| Manager (ESSIM)  |                      |                |                |                             |
| Hardware         | 5.8.0.0              |                |                |                             |
| Programming      |                      |                |                |                             |
| Manager (HRM)    |                      |                |                |                             |
| Election Results | 7.8.0.0              |                |                |                             |
| Manager (ERM)    |                      |                |                |                             |
| Log Monitor      | 1.0.0.0              |                |                |                             |
| Service          |                      |                |                |                             |
| AutoMARK         | 1.3.257              |                |                |                             |
| Information      | 101201               |                |                |                             |
| Management       |                      |                |                |                             |
| System (AIMS)    |                      |                |                |                             |
| Server PC        |                      | Dell Optiplex  |                |                             |
|                  |                      | GX260          |                |                             |
| Server PC        |                      | Dell Precision |                |                             |
|                  |                      | T3500          |                |                             |
| Client PC        |                      | Dell Optiplex  |                |                             |
| Chemitie         |                      | 760            |                |                             |
| VAT Previewer    | 1.3.2907             | 700            |                |                             |
| Ballot on        | 1.0.2707             | OKI C9650      |                |                             |
| Demand Printer   |                      | 014 09050      |                |                             |
| Ballot on        |                      | OKI B430       |                |                             |
| Demand Printer   |                      | 0101 0400      |                |                             |
| DS850 Report     |                      | OKI B431dn     |                | Laser report                |
| Printer          |                      | OKI D401011    |                | printer                     |
| DS850 Report     |                      | Microline 420  |                | Dot Matrix Printer          |
| Printer          |                      | Wheromie 420   |                | Dot Matrix I miter          |
| DS850 Audit Log  |                      | HP LaserJet    |                |                             |
| D3050 Audit Log  |                      | 4050N          |                |                             |
| 7in Diele        |                      | 40301          |                | Pogulto storago for         |
| Zip Disk         |                      |                |                | Results storage for<br>M650 |
| Haadnhanaa       |                      | Avid FV 60     |                | 11000                       |
| Headphones       |                      | SanDisk 2GB    |                |                             |
| USB Flash Drive  |                      | Cruzer Micro   |                |                             |
|                  |                      |                |                |                             |
| USB Flash Drive  |                      | Delkin 512MB   |                |                             |
| USB Flash Drive  |                      | Delkin 4GB     |                |                             |
| USB Flash Drive  |                      | Delkin 8 GB    |                |                             |
| USB Flash Drive  |                      | Delkin 1 GB    |                |                             |
| USB Flash Drive  |                      | Delkin 2 GB    |                |                             |
| Compact Flash    |                      | Delkin Devices |                |                             |
|                  |                      | 1 GB Compact   |                |                             |

| System    | Software or Firmware | Hardware | Operating      | Comments |
|-----------|----------------------|----------|----------------|----------|
| Component | Version              | Version  | System or COTS |          |
|           |                      | Flash    |                |          |

# System Limitations

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

| Characteristic                                  | Limiting                              | Limit      | Comment                                      |
|---|---------------------------------------|------------|--|
|   | Component                             | 2          | Common                                       |
| Precincts Allowed in an Election                | HPM/ERM                               | 2900       | 1639 if using paper ballot                   |
|   |                                       |            | coded by precinct                            |
| Precinct included per poll (reporting limit)    | ERM                                   | 1900       |  |
| Candidate/counters per election                 | ERM                                   | 21000      |  |
| Maximum candidates                              | HPM                                   | 9900       |  |
|   | ERM                                   | Depends on | Limited by 21000 maximum                     |
| Contest allowed in an election                  |                                       | election   | counters                                     |
| Candidates/counters allowed per precinct        | ERM import                            | 1000       |  |
| Ballot styles allowed per election              | HPM (ballot<br>sequence<br>code)      | 5500       | 1639 if using paper ballot<br>coded by style |
| Contests allowed per ballot style               | HPM                                   | 200        | Or number of ballot positions                |
| Precincts allowed per ballot style              | HPM                                   | 1500       |  |
| Candidates (ballot choices) allowed per contest | HPM                                   | 175        |  |
| Count for any precinct element                  | ERM Report<br>(ERM results<br>import) | 500000     | 65550 from any tabulator<br>media            |
| Number of parties allowed                       | HPM                                   | 18         |  |
| "Vote for" per contest                          | HPM                                   | 90         |  |
| Blanket Primary Elections                       |                                       |            | Not supported                                |

#### Component Limitations:

#### PAPER BALLOT LIMITATIONS

1. The paper ballot code channel, which is the series of black boxes that appear between the timing track and ballot contents, limits the number of available ballot variations depending on how a jurisdiction uses this code to differentiate ballots. The code can be used to differentiate ballots by Sequence (limited to 1-1639 variations), Type (1-30 variations) or Split (1-40 variations).

2. If Sequence is used as a ballot style ID, it must be unique election-wide and the Split code will always be 1.

3. If Sequence is used as a precinct ID, it limits the number of styles in a precinct to 1200 (30 Types x 40 Splits).

#### DS200

1. A DS200 coded for Election Day counting will not support more than 18 precincts.

2. The DS200 does not support more than 40 ballot styles in a single absentee precinct in a ballot by-style election. If an election definition contains more than 40 ballot styles, the user has to define more than one absentee precinct and then separate the ballots into groups for processing.

3. All optical scan ballots used in a given election must be the same size and have the same position capacity.

4. An early vote station will only support a maximum limit of 9999 precincts. A large number of precincts may result in small ballot processing delays.

5. An early vote station will not be able to print a precinct-by-precinct report by default.

#### MODEL 100 (M100)

1. The Model 100 does not support more than 18 Election Day precincts, or 450 early voting precincts.

2. A Model 100 PCMCIA card can only contain a maximum of 18 precincts. The user should not assign more than 18 precincts to a Model 100 polling place in HPM.

3. The Model 100 does not support more than 40 ballot styles in a single absentee precinct in a ballot by-style election. If an election definition contains more than 40 ballot styles, the user has to define more than one absentee precinct and then separate the ballots into groups for processing.

4. The M100 supports a maximum of 200 contests per ballot style.

5. All ballots used in a given election must be the same size and have the same position capacity.

6. An early vote station will only support a maximum limit of 450 precincts. This limit is due to the limited memory capacity of both the PCMCIA card and the internal memory of the Model 100 precinct tabulator.

7. An early vote station will not be able to use ballots-by-style.

8. An early vote station will not be able to use a modem to transmit totals.

9. An early vote station will not be able to print a precinct-by-precinct report by default.

#### MODEL 650

1. The Model 650 supports a maximum 37503 candidates or counters for any election.

2. The M650 does not support more than 100 ballot styles for a single absentee precinct in a ballot by-style election. If an election definition contains more than 100 ballot styles, the user

has to define more than one absentee precinct and then separate the ballots into groups for processing

3. All optical scan ballots used in a given election must be the same size and have the same position capacity.

4. The M650 does not support the Arrow style response area.

5. Ballots must be fed in one particular orientation.

6. The Model 650 can interpret a maximum of 1499 office group codes in an election definition. (An "office group" is defined as the collection of one or more contests (including rotation) that always appear together on any ballot style.). This limitation restricts the number of precincts allowed in an election if "precinct only" offices are defined (District Type PRC) because each "precinct only" office always appears in a different office group.

#### DS850

1. All ballots used in a given election must be the same size and have the same position capacity.

#### AUTOMARK VOTER ASSIST TERMINAL

1. ES&S AutoMARK capacities exceed all documented limitations for the ES&S election management, vote tabulation and reporting system. For this reason, Election Management System and ballot tabulator limitations define the boundaries and capabilities of the AutoMARK system as the maximum capacities of the ES&S AutoMARK are never approached during testing

2. The AutoMARK recognizes ballot content by the code channel. If the Sequence code is used for Ballot Style ID and the election definition has more than one precinct that uses a specific ballot style, the AutoMARK will not determine which precinct the ballot is associated with. The user should not define ballot style names in the election definition that imply precinct.

#### **ELECTION DATA MANAGER**

1. In both open and closed primary elections, operational procedures to define the election in EDM must be strictly followed.

2. The user must input the Party Preference (or Pick Contest) title as "Party Preference" in the Office Title box in the Add Office Information window.

3. The user must add a "crossover party" using the Parties option under the **County** menu when the election is an open primary with a party preference race.

4. There is a limitation of 99 candidates for rotation positions. This limit does not apply to positions that float and do not change candidate order.

5. The maximum number of languages supported is 13.

6. The ability to delete parties under the **County** and **Election** menu is not supported.

7. In a primary election, the system does not support displaying the contest(s) from another party's ballot if a third party in the election has candidates in that contest.

#### ES&S BALLOT IMAGE MANAGER

1. ESS Image Manager requires the installation of Adobe Type Manager for assurance that screen displays of the ballot match the printed ballot.

2. ESSIM does not give a column number or position to straight party candidates in the .ifc. The user must assign these manually in HPM.

#### **BALLOT ON DEMAND**

- 1. Ballot on Demand requires an Oki printer.
- 2. Batch Ballot printing is not reflected in any BOD reports.
- 3. Batch Ballot serial numbers are not supported with multi-page ballots.

#### HARDWARE PROGRAMMING MANAGER (WINDOWS)

1. Hardware Programming Manager supports no more than 18 parties for a single election. This limit is reduced to 12 parties, counting "nonpartisan" as a party, for an Open Primary election that uses two page ballots with the second page containing only non-partisan contests. Party/partisan contents CANNOT flow between pages in an Open Primary.

2. When coding an election for an Open primary, the user cannot include (in total voting) the crossover party listed in the **Description** box in the Election Specifications window. The party type displays in the numbered description box, but the user should clear the **Include** check box next to the crossover party type.

3. When coding an election for an open primary, the party preference contests must be identified as nonpartisan.

- 4. There is a maximum of 31 Statistical Party Counters.
- 5. Change/Add Polling Place
  - A polling place may be identified to contain all precinct in the election
  - There is a limit of 80 Precincts that can be assigned to a Polling Place with the following exceptions:
  - The M100 and DS200 have a limit of 18 individually selected precincts that can be assigned to a polling place.
- 6. Ballot Styles
  - In an Open Primary, the number of contest associated with any party (or "nonpartisan" designation) within a ballot style cannot exceed 70. For an Open Primary election, this limitation replaces the 200 contest limit.

#### 7. Districts

- A district is identified by a code that contains 7 positions but is constructed of a 3 position District Type code and a 4 position District code within the type. There are a limit of 19 District Types and 39 Districts for any given type except for the "PRC" district type. The "PRC" district type is used in an election where virtually all precincts have one or two unique precinct specific contests. When the "PRC" district type is active, the District code is designated by the 4 position precinct ID code. The number of precincts that can use this code is a function of the election content and limited by the M650. See "Section 2.2.1."
- A precinct can only have 39 total districts associated with it.

#### 8. Candidates

• The maximum number of candidate rotations per contest is 140. This includes candidate position sets where candidate order is not changed, but use alternate position numbers.

#### ELECTION REPORTING MANAGER

1. The Election Reporting Manager requires a minimum monitor screen resolution of 800 x 600.

2. ERM's maximum page size for reports is 5,000 pages.

3. Serve650 continues to run after ERM is stopped via the Windows Task Manager. If the ERM task is ended, Serve650 must also be canceled, or the PC rebooted.

6. Mixed equipment within a single SPP file is not supported. Each equipment type must have its own SPP file.

7. Contest/Precinct selection pop up display limited to 2,900 contests/precincts.

8. Dynamic Precinct Reports are not supported when updating results from iVotronic Audit Data.

9. Foreign characters are not supported in ERM. This has to do with the creation of the XML results file out of ERM.

10. Generating a District Canvass Report without first properly creating a .DST file can result in inaccurate totals reports and inconsistent report formatting.

11. When retrieving election data from DS200 tabulators; ERM supports a maximum of 1900 precincts for an "All Precincts Included" Poll.

#### **AUTOMARK INFORMATION MANAGEMENT SYSTEM (AIMS)**

If the number of precincts imported from Election Data Manager exceeds 840, an election administrator must manually configure the code channel for precinct number 840 within AIMS. Code channel information for all other precincts imports properly.

#### Functionality

#### 2005 VVSG Supported Functionality Declaration

| Feature/Characteristic                                       | Yes/No | Comment |
|--|--------|---------|
| Voter Verified Paper Audit Trails                            |        |         |
| VVPAT  | No     |         |
| Accessibility  |        |         |
| Forward Approach   | Yes    |         |
| Parallel (Side) Approach                                     | No     |         |
| Closed Primary   |        |         |
| Primary: Closed  | Yes    |         |
| Open Primary   |        |         |
| Primary: Open Standard (provide definition of how supported) | Yes    |         |
| Primary: Open Blanket (provide definition of how supported)  | No     |         |
| Partisan & Non-Partisan:                                     |        |         |

| Feature/Characteristic   | Yes/No | Comment                    |
|--|--------|----------------------------|
| Partisan & Non-Partisan: Vote for 1 of N race                            | Yes    |                            |
| Partisan & Non-Partisan: Multi-member ("vote for N of M") board          | Yes    |                            |
| races  |        |                            |
| Partisan & Non-Partisan: "vote for 1" race with a single candidate       | Yes    |                            |
| and write-in voting  |        |                            |
| Partisan & Non-Partisan "vote for 1" race with no declared               | Yes    |                            |
| candidates and write-in voting   |        |                            |
| Write-In Voting:   |        |                            |
| Write-in Voting: System default is a voting position identified for      | Yes    |                            |
| write-ins.   |        |                            |
| 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    |                            |
| Primary Presidential Delegation Nominations & Slates:                    |        |                            |
| Primary Presidential Delegation Nominations: Displayed delegate          | No     |                            |
| slates for each presidential party                                       |        |                            |
| Slate & Group Voting: one selection votes the slate.                     | No     |                            |
| Ballot Rotation:   |        |                            |
| Rotation of Names within an Office; define all supported rotation        | Yes    |                            |
| methods for location on the ballot and vote tabulation/reporting         |        |                            |
| Straight Party Voting:   |        |                            |
| Straight Party: A single selection for partisan races in a general       | Yes    |                            |
| election   |        |                            |
| 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      | Yes    |                            |
| selection  |        |                            |
| Cross-Party Endorsement:   |        |                            |
| Cross party endorsements, multiple parties endorse one candidate.        | Yes    |                            |
| Split Precincts:   |        |                            |
| Split Precincts: Multiple ballot styles                                  | Yes    |                            |
| Split Precincts: P & M system support splits with correct contests and   | Yes    |                            |
| ballot identification of each split                                      |        |                            |
| Split Precincts: DRE matches voter to all applicable races.              | No     |                            |
| Split Precincts: Reporting of voter counts (# of voters) to the precinct | Yes    | It is possible to list the |
| split level; Reporting of vote totals is to the precinct level           |        | number of voters.          |
| Vote N of M:   |        |                            |
| Vote for N of M: Counts each selected candidate, if the maximum is       | No     |                            |
| not exceeded.  |        |                            |
| Vote for N of M: Invalidates all candidates in an overvote (paper)       | No     |                            |

| Feature/Characteristic  | Yes/No | Comment                 |
|---|--------|-------------------------|
| Recall Issues, with options:  |        |                         |
| Recall Issues with Options: Simple Yes/No with separate                   | Yes    |                         |
| race/election. (Vote Yes or No Question)                                  |        |                         |
| Recall Issues with Options: Retain is the first option, Replacement       | Yes    |                         |
| candidate for the second or more options (Vote 1 of M)                    |        |                         |
| Recall Issues with Options: Two contests with access to a second          | No     |                         |
| contest conditional upon a specific vote in contest one. (Must vote       |        |                         |
| Yes to vote in 2 <sup>nd</sup> contest.)                                  |        |                         |
| Recall Issues with Options: Two contests with access to a second          | No     | Overturned - US         |
| contest conditional upon any vote in contest one. (Must vote Yes to       | 110    | District Court 7/29/03: |
|   |        | CA Election Code        |
| vote in 2 <sup>nd</sup> contest.)   |        | sect. 11383             |
| Cumulative Voting   |        |                         |
| Cumulative Voting: Voters are permitted to cast, as many votes as         | No     |                         |
| 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.                                  |        |                         |
| Ranked Order Voting   |        |                         |
| Ranked Order Voting: Voters can write in a ranked vote.                   | No     |                         |
| Ranked Order Voting: A ballot stops being counting when all ranked        | No     |                         |
| choices have been eliminated  |        |                         |
| Ranked Order Voting: A ballot with a skipped rank counts the vote         | No     |                         |
| for the next rank.  |        |                         |
| Ranked Order Voting: Voters rank candidates in a contest in order of      | No     |                         |
| 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,           | No     |                         |
| stops being counted at the point of two similarly ranked choices.         |        |                         |
| Ranked Order Voting: The total number of votes for two or more            | No     |                         |
| 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.                                     |        |                         |
| Provisional or Challenged Ballots   |        |                         |
| Provisional/Challenged Ballots: A voted provisional ballots is            | Yes    |                         |
| identified but not included in the tabulation, but can be added in the    |        |                         |
| central count.  |        |                         |

| Feature/Characteristic   | Yes/No | Comment     |
|--|--------|-------------|
| Provisional/Challenged Ballots: A voted provisional ballots is         | Yes    |             |
| included in the tabulation, but is identified and can be subtracted in |        |             |
| the central count  |        |             |
| Provisional/Challenged Ballots: Provisional ballots maintain the       | Yes    |             |
| secrecy of the ballot.   |        |             |
| Overvotes (must support for specific type of voting system)            |        |             |
| Overvotes: P & M: Overvote invalidates the vote. Define how            | Yes    |             |
| overvotes are counted.   |        |             |
| Overvotes: DRE: Prevented from or requires correction of               | No     |             |
| overvoting.  |        |             |
| Overvotes: If a system does not prevent overvotes, it must count       | Yes    |             |
| them. Define how overvotes are counted.                                |        |             |
| Overvotes: DRE systems that provide a method to data enter             | No     |             |
| absentee votes must account for overvotes.                             |        |             |
| Undervotes   |        |             |
| Undervotes: System counts undervotes cast for accounting purposes      | Yes    |             |
| Blank Ballots  |        |             |
| Totally Blank Ballots: Any blank ballot alert is tested.               | Yes    |             |
| Totally Blank Ballots: If blank ballots are not immediately processed, | Yes    |             |
| there must be a provision to recognize and accept them                 |        |             |
| Totally Blank Ballots: If operators can access a blank ballot, there   | Yes    |             |
| must be a provision for resolution.                                    |        |             |
| Networking   |        |             |
| Wide Area Network – Use of Modems                                      | No     |             |
| Wide Area Network – Use of Wireless                                    | No     |             |
| Local Area Network – Use of TCP/IP                                     | No     |             |
| Local Area Network – Use of Infrared                                   | No     |             |
| Local Area Network – Use of Wireless                                   | No     |             |
| FIPS 140-2 validated cryptographic module                              | No     |             |
| Used as (if applicable):   |        |             |
| Precinct counting device   | Yes    | M100, DS200 |
| Central counting device  | Yes    | M650, DS850 |

# Baseline Certification Engineering Change Order's (ECO)

This table depicts the ECO's certified with the voting system:

| Change ID | Date    | Component        | Description                              | Inclusion              |
|-----------|---------|------------------|--|------------------------|
| 000683    | 5/10/11 | DS200            | Modify locking hooks/tabs on LCD housing | De Minimis<br>Optional |
| 000819    | 5/10/11 | DS200 Ballot Box | Modify emergency bin to improve stacking | De Minimis<br>Optional |

| Change ID | Date     | Component        | Description  | Inclusion              |
|-----------|----------|------------------|--|------------------------|
| 000821    | 5/10/11  | DS200 Ballot Box | Modify emergency bin to improve stacking                   | De Minimis<br>Optional |
| 000852    | 5/10/11  | DS200 Ballot Box | Modify carry case to improve paper<br>handling             | De Minimis<br>Optional |
| 000702    | 6/16/11  | DS200            | Add alternate display switch                               | De Minimis<br>Optional |
| 000839    | 6/16/11  | DS200 Ballot Box | Change caster mounts to ease assembly                      | De Minimis<br>Optional |
| 864       | 8/11/11  | AutoMARK         | Printed Circuit Boards End of Life                         | De Minimis<br>Optional |
| 871       | 8/30/11  | DS200/DS850      | Second Source for USB Connector for Delkin<br>4-8gb        | De Minimis<br>Optional |
| 872       | 6/25/12  | DS200/DS850      | Release a new 4 GB USB thumb drive                         | De Minimis<br>Optional |
| 873       | 6/25/12  | DS200/DS850      | Release a new 8 GB USB thumb drive                         | De Minimis<br>Optional |
| 875       | 6/25/12  | AutoMARK         | Release 1GB Compact Flash                                  | De Minimis<br>Optional |
| 876       | 11/10/11 | AutoMARK         | Redefine AutoMARK hardware revision<br>level               | De Minimis<br>Optional |
| 878       | 6/25/12  | AutoMARK         | End of Life AutoMARK components                            | De Minimis<br>Optional |
| 881       | 8/31/12  | DS200/DS850      | Allow color housing on 1gb, 2gb, 4gb and<br>8gb USB drives | De Minimis<br>Optional |
| 882       | 10/26/12 | DS200/DS850      | Introduce Delkin 1gb & 2gb USB drives                      | De Minimis<br>Optional |
| 884       | 8/31/12  | DS200            | Add rubber gasket for steel ballot box                     | De Minimis<br>Optional |
| 1029      | 8/31/12  | DS200/DS850      | Introduce new delkin compact flash                         | De Minimis<br>Optional |