



HART
*intercivic*TM

System 2.1 Changes

BOSS 2.9

TALLY 2.9

Ballot Now 1.5

PVS 1.16

1. Introduction

After the release of Hart Voting System version 2.0 from ITA certification in April, 2002 it was determined that a small set of requirements needed to be addressed in that system release. These changes are required to improve the applications within the Hart Voting System and in a few cases to enhance existing functionality or application performance. This document outlines the changes that take eSlate applications to the following versions:

	System v. 2.0	System v. 2.1
Application	Release Version	Revised Version
BOSS	2.8.xx	2.9.04
Tally	2.8.xx	2.9.07
Ballot Now	1.4.xx	1.5.09
PVS Firmware	1.15.xx	1.16.03

1.1. Summary of software changes

A total of 22 changes have been made to the components in the Hart Voting System. In general these changes are minor and do not represent a significant change to the code base of any one application component. The changes are either minor enhancements of existing functionality or defect fixes.

BOSS 2.9.04 (5 changes)
Tally 2.9.07 (5 changes)
Ballot Now 1.5.09 (12 changes)
PVS 1.16.03 (4 changes)

2. System Version 2.1 Changes

2.1. BOSS 2.9.04

- 2.1.1. MBB unique ID user message. When writing MBBs, after a large number have been written (approximately 200) a message would appear to the user due to a conflict with the uniqueness of the MBB id. This has been fixed.
- 2.1.2. Database forwarding timeout when attempting to forward a large database. When copying a large database forward the process would fail due to the length of time required by the large database. The process has been replaced with a more simple external API call. This has been fixed.
- 2.1.3. Null string audio text. The database stored procedures that generate the audio records detect either NULL or " (empty string) to create the record.
- 2.1.4. Polling Place ID not displaying on reports. The Polling Place ID is listed on all Polling Place Summary reports.

2.1.5. Straight party voting logic. The BOSS system supports only one Straight Party voting logic; however logic varies by state. Enhanced existing straight party voting logic to support one additional method as defined by "The Pennsylvania Method". This involves a change to the BOSSUtil.dll file (separately noted).

2.2. Tally 2.9.07

2.2.1. Final Cumulative Report. The number of registered voters on the final cumulative report was not correct and is fixed. Counted precincts on the final cumulative report count only Election Day precincts.

2.2.2. Report header. Report headers properly display total number of voters, registered voters, and percentages, and precincts reporting, total precincts, and percentages.

2.2.3. Line printer performance. Line printer performance when audit printing precincts during processing of MBB's; only print the first eight precincts on an MBB. If there are additional precincts, they are denoted with three ellipses (...).

2.2.4. Data type. Data type agrees in processing of MBB's - integers are longs in MBB processing loop.

2.2.5. "regedit" method. Changed regedit location of database's to mirror that of BOSS. 'DBVersion' key gets deleted every time user enters into ODBC Administration.

2.3. Ballot Now 1.5.09

2.3.1. Ballot stub support for 11x17 ballots. If the user selects "11x14 Ballot Format, with Stub" in BOSS, Ballot Now prints an "11x14" ballot with a 3" stub. This includes a change to the BOSSUtil.dll file (separately noted).

2.3.2. Save CVR's if batch is not resolved. CVR's for a batch can only be saved to the MBB if all ballots in that batch are resolved. This prevents any problems when a batch needs to be deleted for any reason.

2.3.3. "Vote Both Sides" at bottom of ballot as well as top. The "Vote Both Sides" is now at the bottom of the ballot as well as the top.

2.3.4. Additional scanner support. Four Kodak scanners are supported: 9520, 3500, 3520, and 1500. The Fujitsu M3097 is also supported.

2.3.5. "Transferring" is misspelled on dialog. The misspelling in the Recover Card dialog is corrected.

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- 2.3.6. Overvote flag. Through a certain sequence of actions on the "Resolve Overvote" screen, it was possible to set the overvote flag for the contest when it actually was not overvoted. This sequence involved identifying a contest as overvoted, then changing the contest mark and saving the change. This sequence both set an overvote flag AND changed the contest mark. It is no longer possible to do this in Ballot Now without canceling the overvote flag.
- 2.3.7. Missing option boxes when printing. Occasionally, when printing ballots, the option boxes did not print. This is fixed.
- 2.3.8. Dual languages on ballot. The print ballots dialog allows the user to include "Vote Both Sides" in Spanish as well as English.
- 2.3.9. Text alignment enhancement. Text properly aligns on printed Ballot Now ballots. Corrected this problem by modification of the print alignment routines in ballot generation. This involves a change to the BOSSUtil.dll file (separately noted).
- 2.3.10. Straight party voting logic. The Ballot Now system supports only one Straight Party voting logic; however logic varies by state. Enhanced existing straight party voting logic to support one additional method as defined by "The Pennsylvania Method".
- 2.3.11. Software speckle filter. A software filter is implemented that can eliminate speckle from scanned images. It can be enabled/disabled through a registry setting.
- 2.3.12. Default print mode. The Ballot Now default when printing from an Election Mode MBB was "Sample"; it is now "Election". The Ballot Now default when printing from a Test Mode MBB was "Sample"; it is now "Test".

2.4. PVS Firmware 1.16.03

eSlate

- 2.4.1. Straight party voting logic. The eSlate system supports only one Straight Party voting logic; however logic varies by state. Enhanced existing straight party voting logic to support one additional method as defined by "The Pennsylvania Method". This involves a change to the BOSSUtil.dll file (separately noted).

JBC

- 2.4.2. Battery power enhancement. JBC has the ability to disable battery power from software. Added software shutoff with timeout and H-C-V key combination.
- 2.4.3. Flash memory configuration. Engineering review of firmware recommended changes to configuration of flash memory chip select to prevent the occurrence of writing to the MBB unless that writing is performed in specific circumstances
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that include audit log and CVR record entry. Changes have no impact on functionality.

2.4.4. Straight party voting logic. The eSlate system supports only one Straight Party voting logic; however logic varies by state. Enhanced existing straight party voting logic to support one additional method as defined by "The Pennsylvania Method".

2.5. BOSS2MBB.dll and BOSSUtil.dll

The BOSS2MBB.dll and the BOSSUtil.dll files are critical files to the Hart Voting System. Several of the requirements listed above required changes to these two files, however, there are no specific requirements that are uniquely applicable to these two files.

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