Democracy Suite® EMS ImageCast® Voter Activation User Guide

Version: 5.13-CO::3

April 12, 2021

DOMINION VOTING

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CHAPTER 1: ICVA INTRODUCTION

1.1 Document Use

This document is intended for use with the Democracy Suite® 5.13-CO platform.

1.2 Relevant Disclaimers

This document may make reference to certain Democracy Suite functionalities that are not part of the current 5.13-CO campaign and should be disregarded throughout the document.

For a full list of relevant disclaimers, please see the "Relevant Disclaimers" section in the *2.02 - Democracy Suite® System Overview* document.

1.3 Overview

The ImageCast Voter Activation (ICVA) application is a polling location tool which allows the poll workers to program smart cards for voters. The smart cards are be used to activate voting sessions on the following devices:

- ImageCast Evolution (ICE)
- ImageCast X (ICX)

The ICVA application depends on the following prerequisites being installed on the same computer:

- The driver for the qualified Smart Card reader
- The DVS Smart Card Helper Service

When the ICVA application first runs, it reads in a list of activation codes for the election, by polling location. Once the initial configuration is performed and the polling location is identified by the poll worker, the application will be waiting idly for smart cards to programmed and/or read.

The application can program new or overwrite used smart cards, with activation codes chosen by the poll worker.

CHAPTER 2: ICVA INSTALLATION

This chapter covers the installation and configuration of ImageCast® Voter Activation (ICVA). The installation and configuration steps for ICVA are typically completed during the installation and configuration of the workstation or server. In the event ICVA installation and configuration was not performed during the initial installation and configuration of your system, the instructions are replicated below.
If ICVA was installed and configured during the installation and configuration of your workstation or server, you may skip this chapter.

This chapter assumes that the ICVA application and relevant prerequisites will be installed to run on polling location machines running on Microsoft Windows 10 Professional, Build 1909.

2.1 ICVA - Installing Prerequisites

2.1.1 Smart Card Helper Service Installation

1. To install the Smart Card Helper Service, insert the EMS Installation DVD, click on the **Install** tab, expand the **EMS Client Applications** item, and expand **Smart Card Helper Service**.
2. Double-click **64bit version**.
   The User Account Control (UAC) screen may appear, depending on your security settings.
3. If UAC appears, select **Yes**.
   Smart Card Helper Service Setup Wizard screen appears.
4. Click **Next** to begin installation, see Figure 2-1

Figure 2-1: Setup Wizard Welcome screen

5. The License Agreement screen appears. Read the license agreement.

6. If you understand and agree to all the terms contained within the License Agreement, select the **I Agree** option and click **Next**.

   NOTE: You cannot proceed with the installation if you do not agree to the terms and conditions outlined in the License Agreement, see Figure 2-2

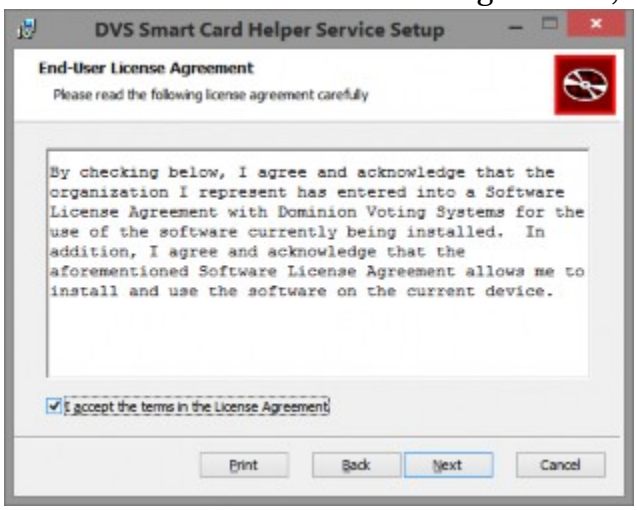

Figure 2-2: License Agreement Screen

7. Select Destination Folder screen appears. Keep the default file path listed in the Folder field. This is the location to which Smart Card Helper Service will be installed.

8. Click **Next** to continue, see Figure 2-3.

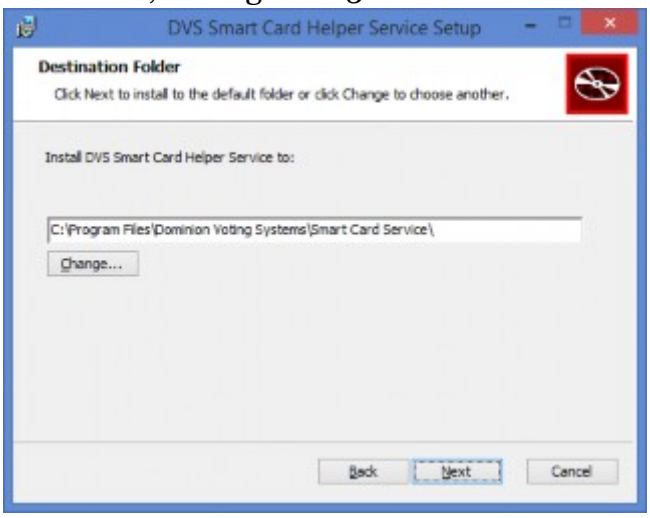

Figure 2-3: Destination Folder Screen

9. Click **Install** to start the installation, see Figure 2-4.
   The Smart Card Helper Service will begin to install, see Figure 2-5.

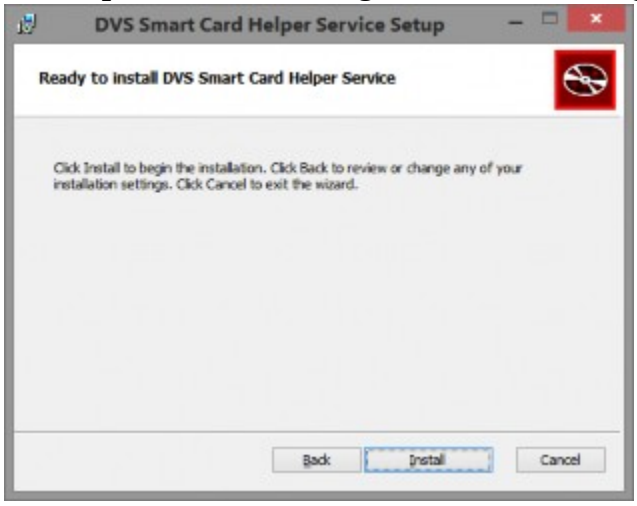

Figure 2-4: Ready to Install Screen

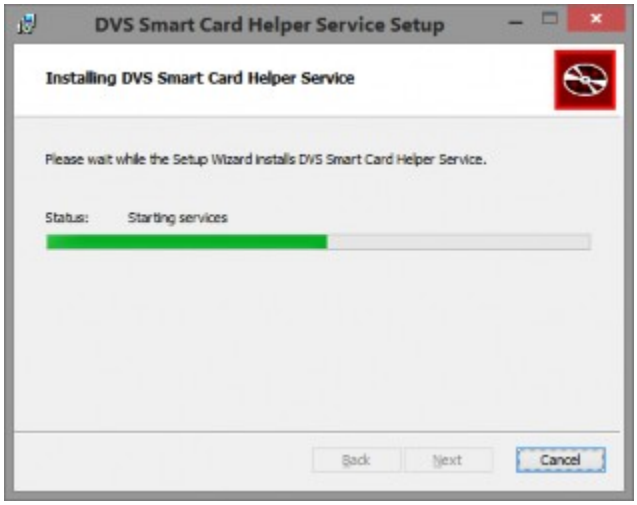

Figure 2-5: Installing screen

10. You will receive confirmation once the installation has completed.
11. Click **Finish** to exit the Smart Card Helper Service Installation Wizard, see Figure 2-6.

Figure 2-6: Installation Complete Screen

12. Please check if Smart Card Service is installed correctly by clicking **Windows** and **Q** on the keyboard.
13. In the Search field, enter `services.msc`.

14. List of Windows services screen appears, see Figure 2-7.

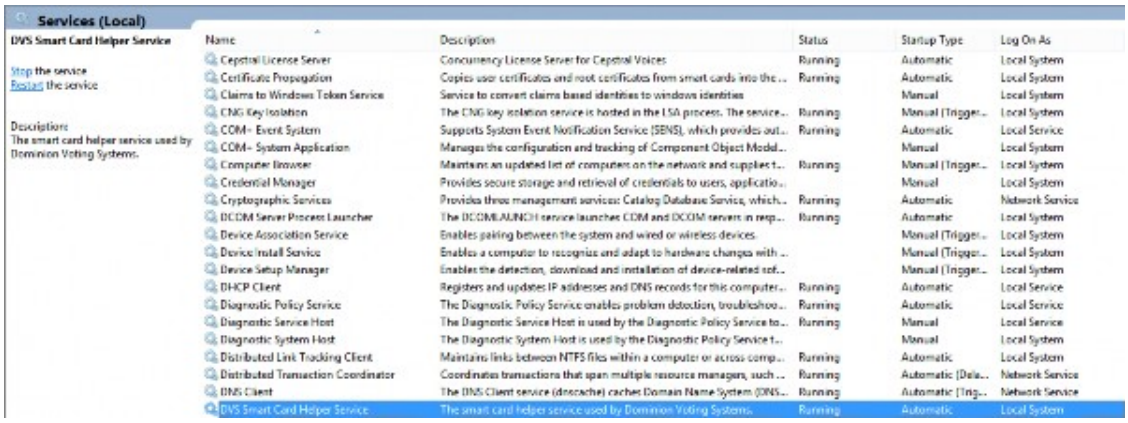

Figure 2-7: Smart Card Helper Service Screen

2.2 ImageCast Voter Activation Application Installation

1. In order to install the EMS ImageCast Voter Activation, insert the EMS Installation Disc, click the **Install** tab, expand the **EMS Client Applications** item, and select **EMS ImageCast Voter Activation**.
2. Double click the **64bit version**.
3. The User Account Control (UAC) screen appears. Click on the **Yes** button to proceed.
4. Once you have selected the 64 bit version, the EMS ImageCast Voter Activation Application Setup Wizard welcome screen appears.
5. Click **Next** to begin your installation, see Figure 2-8.

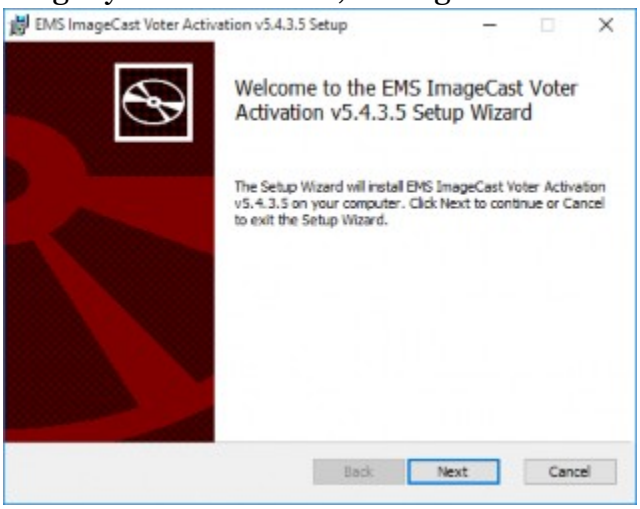

Figure 2-8: Setup Wizard screen

6. The License Agreement screen appears.

7. If you understand and agree to all the terms contained within the license agreement, click **Next**.

   NOTE: You cannot proceed with the installation if you do not agree to the terms and conditions outlined in the License Agreement, see Figure 2-9.

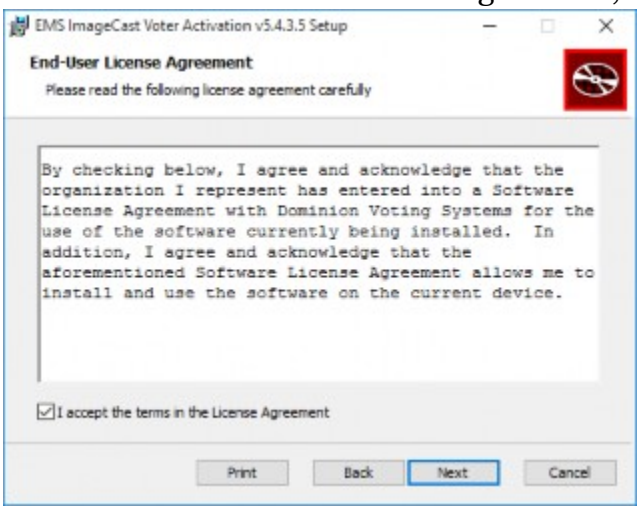

Figure 2-9: License Agreement screen

8. The Destination Folder screen appears. Keep the default file path listed in the Folder field. This is the location where the EMS ImageCast Voter Activation Application will be installed.

9. Click **Next** to continue, see Figure 2-10.

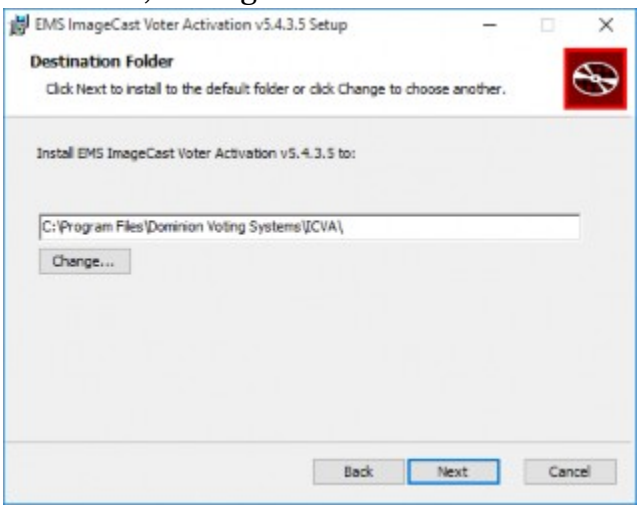

Figure 2-10: Destination Folder screen

10. The Ready to Install screen appears. Click **Install** to confirm and begin your installation, see Figure 2-11.

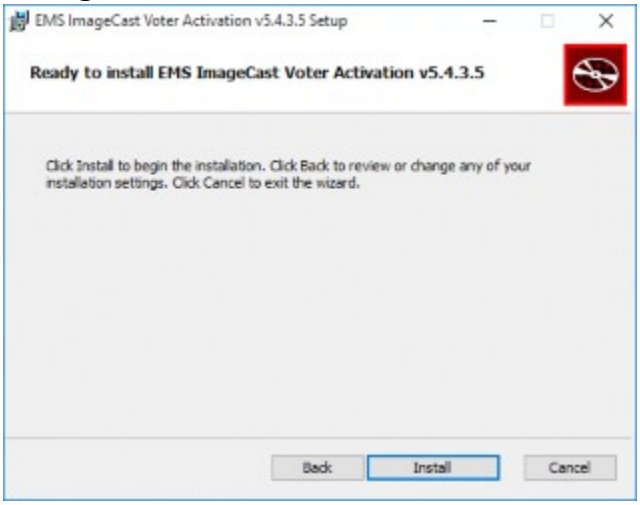

Figure 2-11: Ready to Install screen

11. EMS ImageCast Voter Activation Application will begin to install, see

Figure 2-12.

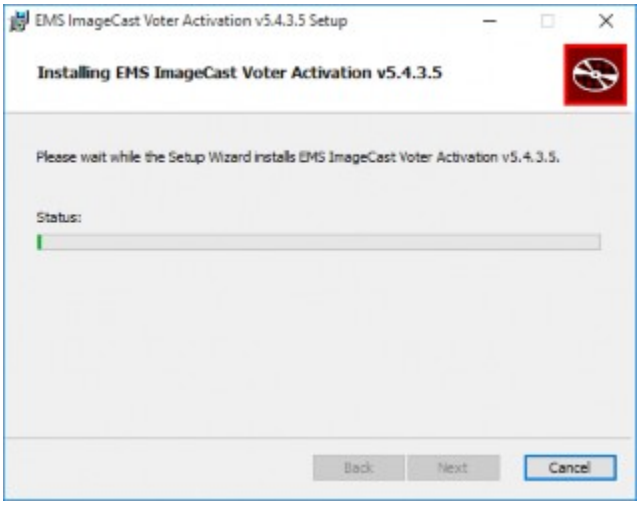

Figure 2-12: Installing screen

12. You will receive confirmation that the installation has completed. Click **Finish** to exit the EMS ImageCast Voter Activation Application Installation Wizard, see Figure 2-13.

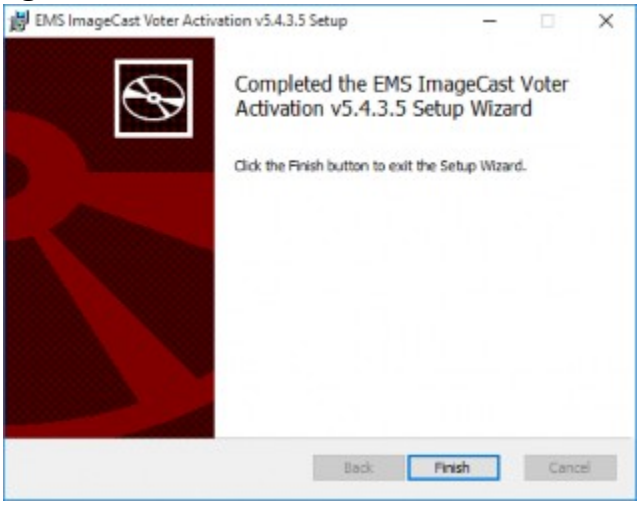

Figure 2-13: Installation Complete screen

CHAPTER 3: ICVA CONFIGURATION

This chapter describes how to correctly configure the ICVA application for use at the polling location.

3.1 Running the Application for the First Time

When the ICVA application is successfully installed, the next step is to run the application and perform some basic configuration steps.

1. To start the application, double-click the **ICVA** shortcut located on the desktop.
2. When the application starts, the user will be prompted to insert the poll worker smart card, in order to authenticate the user, see Figure 3-1.

Figure 3-1: Insert Poll Worker Smart Card screen

3. When the card is inserted, the application will prompt the poll worker for the pin, in order to perform authentication, see Figure 3-2

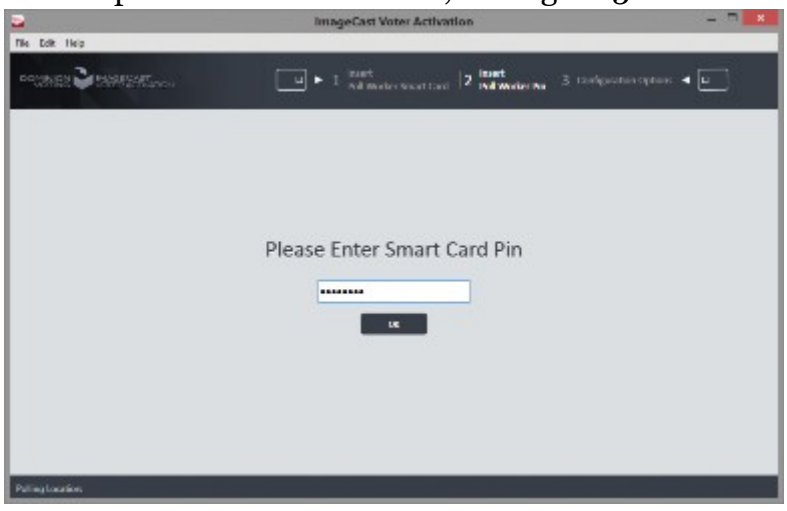

Figure 3-2: Enter Poll Worker Pin screen

4. When the poll worker is successfully authenticated, the application prompts the user to identify the activation code configuration file which the application should refer to. This file is exported from the election definition project from the EMS Election Event Designer (EED) application, see Figure 3-3.

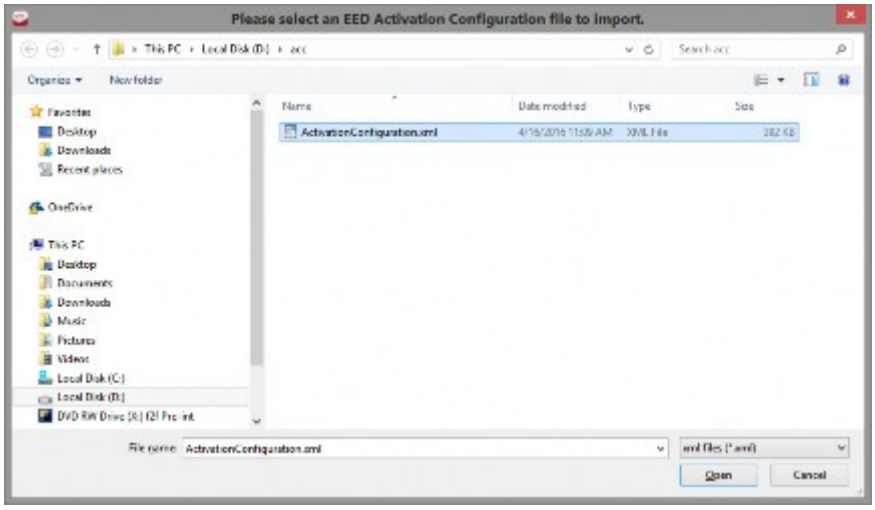

Figure 3-3: Browse to Activation Code Configuration File screen

5. If you have already created this file in EED and imported in ICVA, skip to step 8. Otherwise, open the election project in EED on your EMS workstation, and perform the next two steps.
6. In the Election Project menu, select the **Export** menu item and click the **Activation Configuration** item, see Figure 3-4.

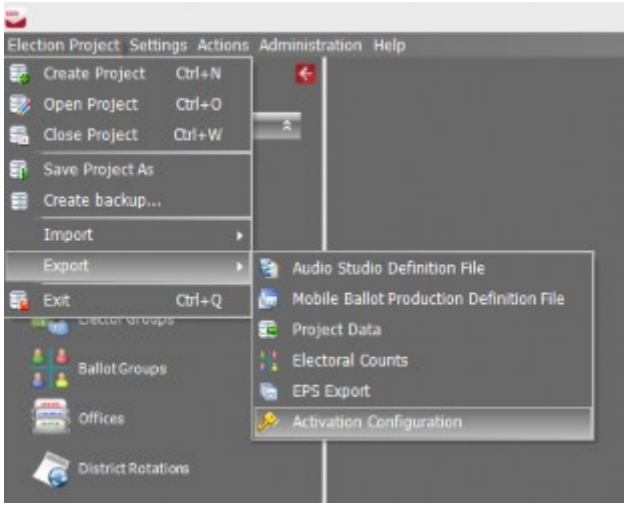

Figure 3-4: Exporting the Activation Code Configuration File screen

7. In the Save As dialog, navigate to the location where the file should be saved, and click **Save**. This file must be transported to the polling location

computer where ICVA is running, see Figure 3-5.

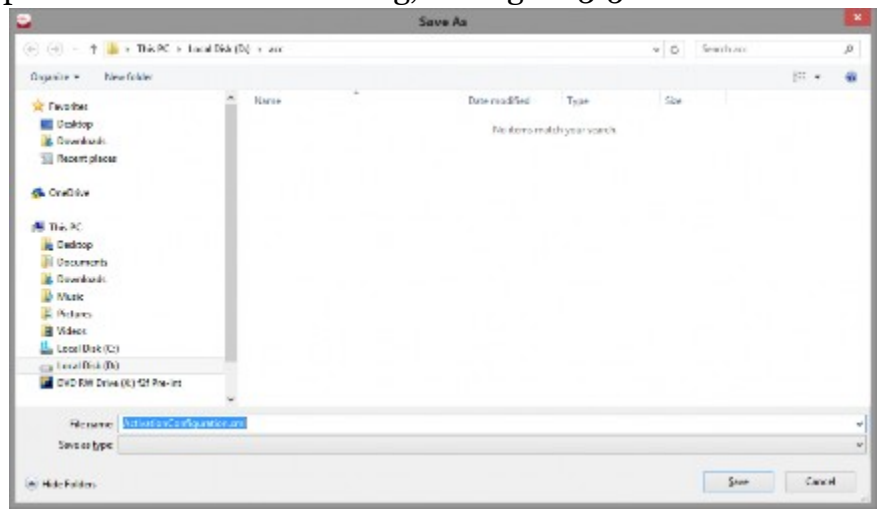

Figure 3-5: Saving the Activation Code Configuration File dialog

8. The user must indicate the polling location they are at in the configuration screen.
9. When all the settings have been applied, click **Save**.

   NOTE: If there is only one polling location it will be selected automatically and Configuration Options screen will not be displayed, see Figure 3-6

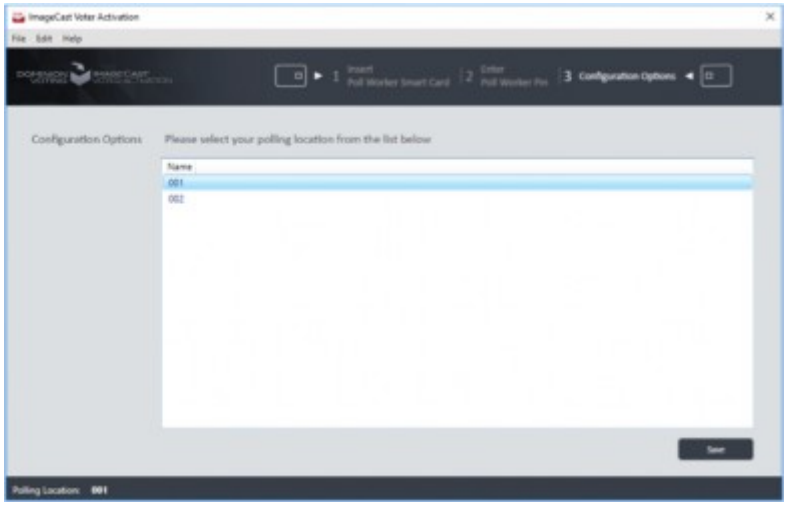

Figure 3-6: Configuring ICVA screen

Now that the configuration steps have been completed, the application will be ready to accept voter smart cards for programming or reading.

3.2 Voting Modes

It is possible to choose different voting modes for ICVA.

The following modes are available:

- None (default).
- Provisional.
- Challenged.

1. To access these settings in EED go to Settings > Project parameters (Be sure to be in Ballots Generated status), see Figure 3-7.

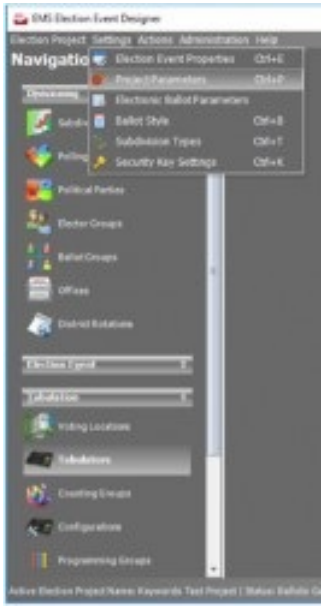

Figure 3-7: Location of Project Parameters in EED

2. In the Project Parameters screen on the General tab there is a drop-down menu for selection of the Voting Mode called **Conditional Voting Mode**, see Figure 3-8

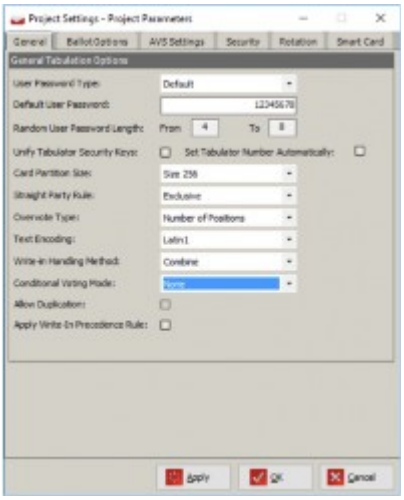

Figure 3-8: Conditional Voting Mode in Project Parameters screen

3. Export of Activation Configuration is required after changing previously set mode.

Chapter 4: Activating and Reading Voter Cards

When the ICVA application has been started, and configured properly, it will be waiting for the first Voter smart card to be inserted for programming.

The following steps describe the typical card activation and reading cycle.

1. A prompt will be displayed to the poll worker, asking for a voter smart card to be inserted, see Figure 4-1.

Figure 4-1: Insert Voter Smart Card screen

2. The poll worker will be presented with a list of applicable activation codes and their descriptions for the polling location where ICVA is running. Select the correct activation code for the voter, and click **Activate Voter Card**.
3. If the card is not empty the current content of card will be presented in the bottom right corner of the screen, see Figure 4-2.
   The following content is provided:
   - Status
   - Activation Code
   - Creation Time

   The possible card statuses are:
   - Not Voted
   - Logged in
   - Language Selection
   - Party Selection

- AVS Device Selection
- Ballot
- Review
- Voted

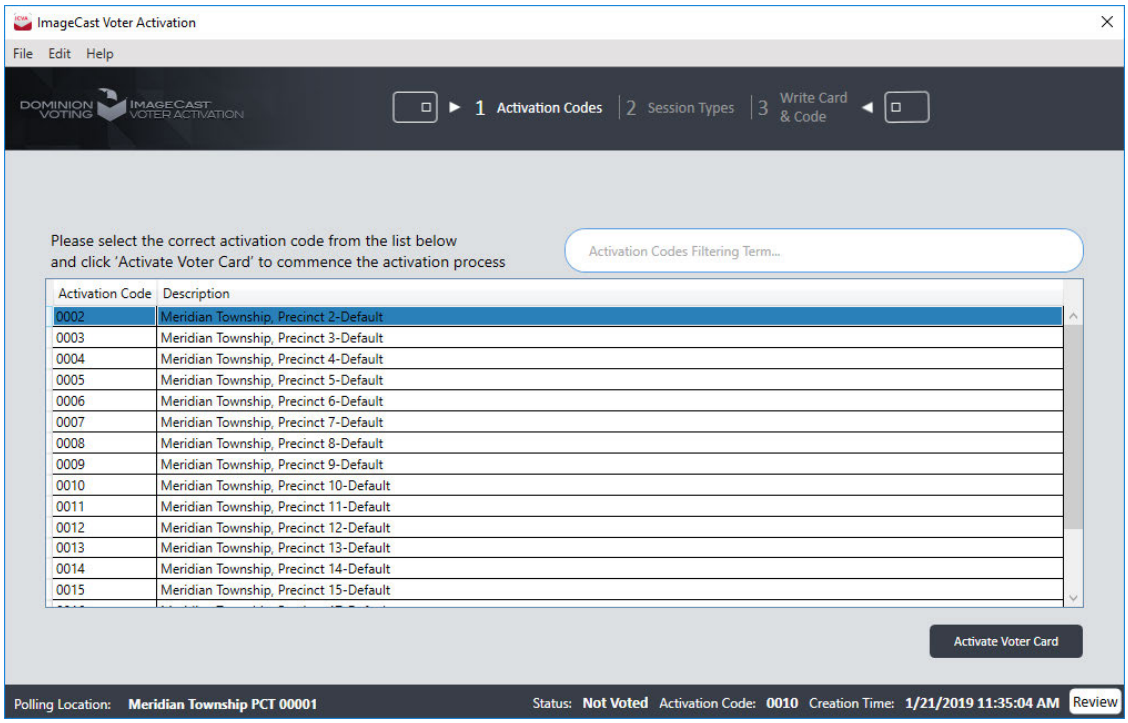

Figure 4-2: Selecting a Voter Session Activation Code screen

To review all voter session data click on **Review** button, see "Reviewing and Canceling a Voter Session" on page 18.

4. If ICVA has been configured to support activation of Accessible Voting Sessions (AVS) at the polling location where it is running, see "Running the Application for the First Time" on page 10, the poll worker will be prompted to choose the type of session to activate: Standard or Accessible. Click the button representing the correct session type for the voter to move to the next step, see Figure 4-3.

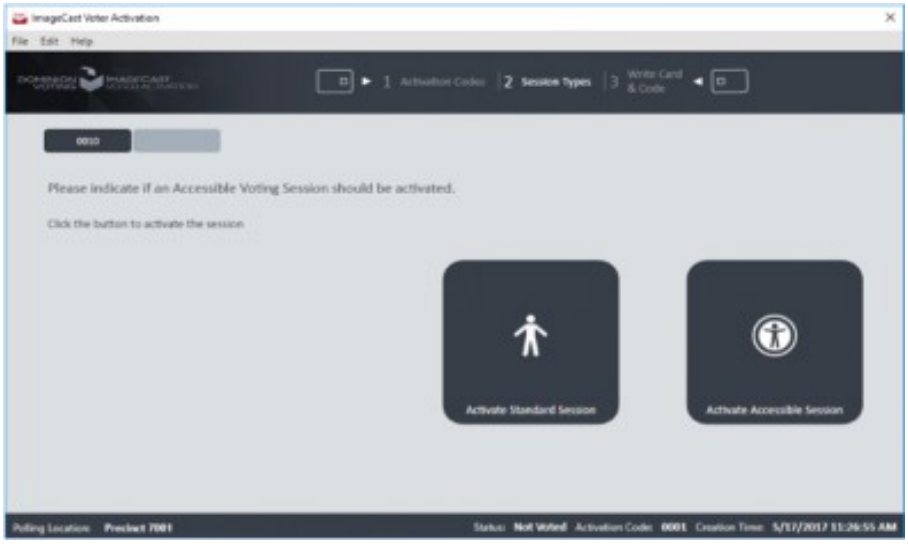

Figure 4-3: Indicating if Voter Session is Accessible screen

If ICVA has been configured to support provisional or challenged voting at the polling location where it is running, see *"Voting Modes" on page 12*, the poll worker will be prompted to choose the type of session to activate: Regular, or, depending on the type of conditional voting in the project configuration, Provisional or Challenged. Click the button representing the correct session type for the voter to move to the next step.

5. When the Poll Worker finishes choosing the session types, the application will start writing the data to the card, see Figure 4-4.

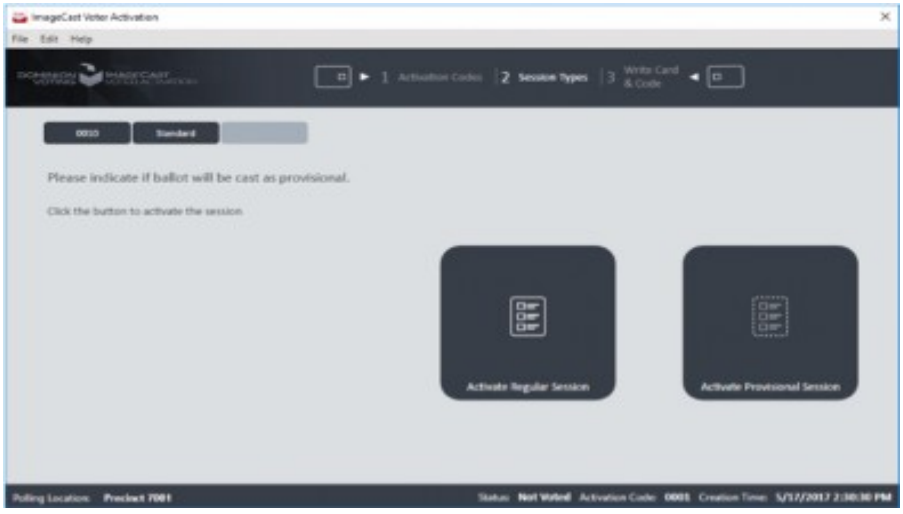

Figure 4-4: Indicating if Voter Session is Provisional or Challenged screen

6. The application will indicate that the selections are currently being written to the voter card, and the user will be instructed not to remove the smart card, see Figure 4-5.

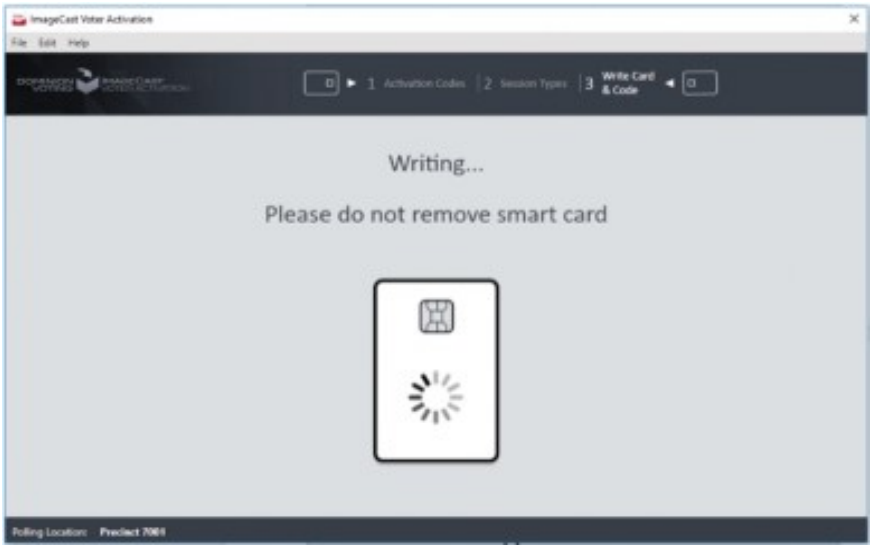

Figure 4-5: Programming Voter Card screen

7. If ICVA has been configured to support provisional or challenged voting at the polling location where it is running, see *"Voting Modes" on page 12*, the poll worker will receive a unique code that needs to be written together with the voter's name.
   For provisional voting, Activate Provisional Session must be selected to receive this code, see Figure 4-6.

Figure 4-6: Code needs to be written together with voter's name screen

8. The application will inform the user that the card has been successfully programmed, see Figure 4-7.

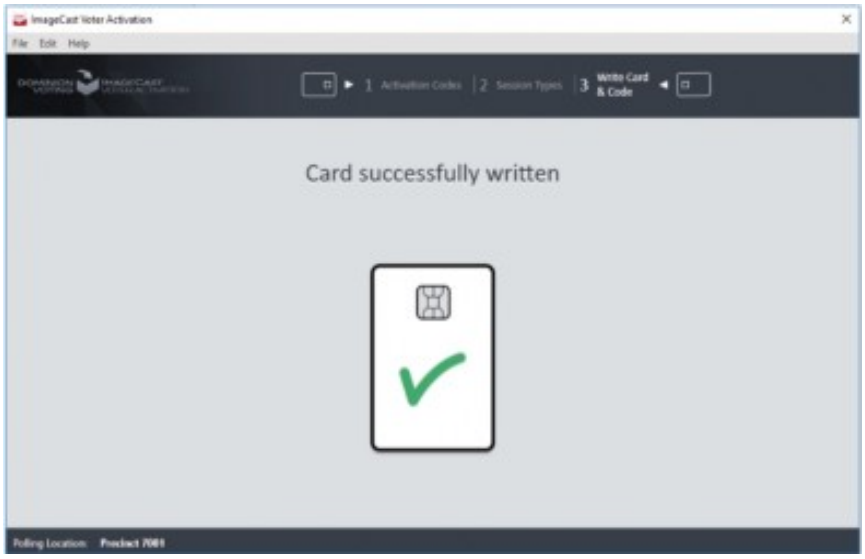

Figure 4-7: Card Successfully Written screen

9. The application will prompt the user to remove the smart card. Once it is removed, the poll worker will be presented with the situation in step 1 - the application will be waiting for a voter card to be inserted, see Figure 4-8.

Figure 4-8: Remove Written Card screen

4.1 Reviewing and Canceling a Voter Session

If the inserted voter card is not empty (contains voter session), the poll worker can review the current voter session by clicking **Review** in the bottom right corner.

The voter session data, which exists on the card and voter session activation status

from the **Session** report, will be displayed.

In cases where a voter may flee prior to voting, or a card is inactivated in error, the poll worker can mark the current active voting session in the **Session** report as canceled/no longer active by clicking on **Cancel Session** button. If the voter session is canceled, cancellation time will be displayed.

After reviewing current voter session, the poll worker can either activate the voter card or exit the voter card, see Figure 4-9.

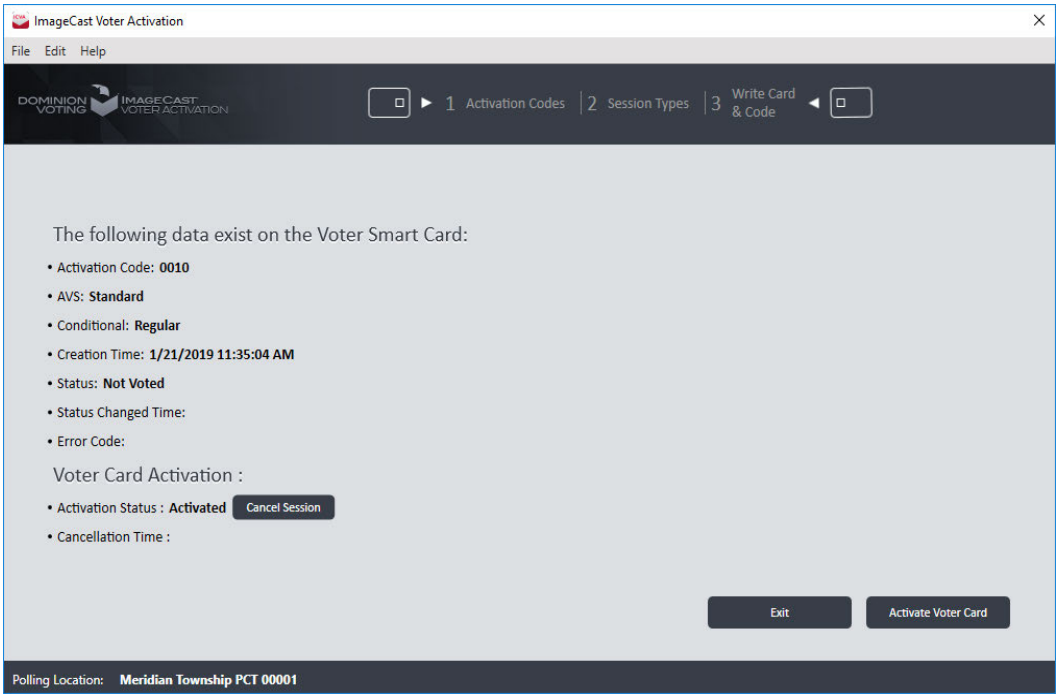

Figure 4-9: Reviewing and canceling current voter session

4.2 Error Codes

The following is a list of error codes written on the Voter's smart card with their description:

0 - Initial state (there is no error)

10 - Card data error

20 - Invalid Ballot

21 - Invalid session Id

22 - Invalid verification code

30 - Error loading the election data

31 - Retry connection dialog displayed

40 - Already voted

41 - The voter card with an already initialized voting session

50 - Failed to initialize TTS engine

60 - Business Rule Violation

70 - Cast Ballot Error

71 - No Ballot Header png

72 - Cast Ballot Error creating electronic ballot failed

73 - Cast Ballot Error sending data to printer failed

74 - Cast Ballot Error Printer not found

75 - Cast Ballot Error Printer Door Open

76 - Cast Ballot Error Printer Paper Jam

77 - Cast Ballot Error Printer Paper Jam

78 - Cast Ballot Error Printer Service Cycle Power

79 - Cast Ballot Error Printer Unspecified Error

80 - Cast Ballot Error Printer Load Paper

81 - Cast Ballot Error Printer Hardware Error

82 - Cast Ballot Error Printer Black Cartridge missing

83 - Print Ballot document could not be created

84 - Cast Ballot Error Vote was not counted but the application has already changed the voter card status to "CAST" and an end voting time and tabulator

number have been inserted.

CHAPTER 5: VIEW SESSION REPORT

The Session Report contains the number of activated smart cards that are displayed at the top of the report.

To open the View Session Report, perform the following steps:

1. Expand the **File** menu and click on the View Session Report menu item.
2. Session Report screen will appear, see Figure 5-1.

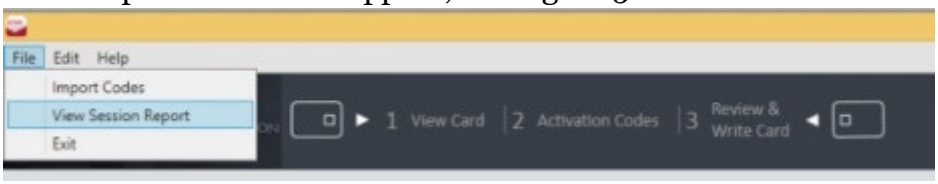

Figure 5-1: View Session Report menu screen

3. The total number of activated voter cards and number of activated cards in the current session are displayed at the top of the report. Furthermore, report shows number of activated cards which are canceled, see Figure 5-2.

For each burned smart card included in the Session Report, a Report Grid (table) is produced containing the following fields:

- **Activation Code**: The value of the activation code stored on the smart card.
- **Session Start Time:** The time when the session started.
- **Write Time:** The time when the session ended.
- **AVS support** (Optional).
- **Conditional/Challenged smart card settings** (Optional)
- **Canceled**: If voter session is canceled, the time when voter card session is canceled.
- **Error Code:** If the voter session is canceled, or there is an error during the voter session, an error code will display.

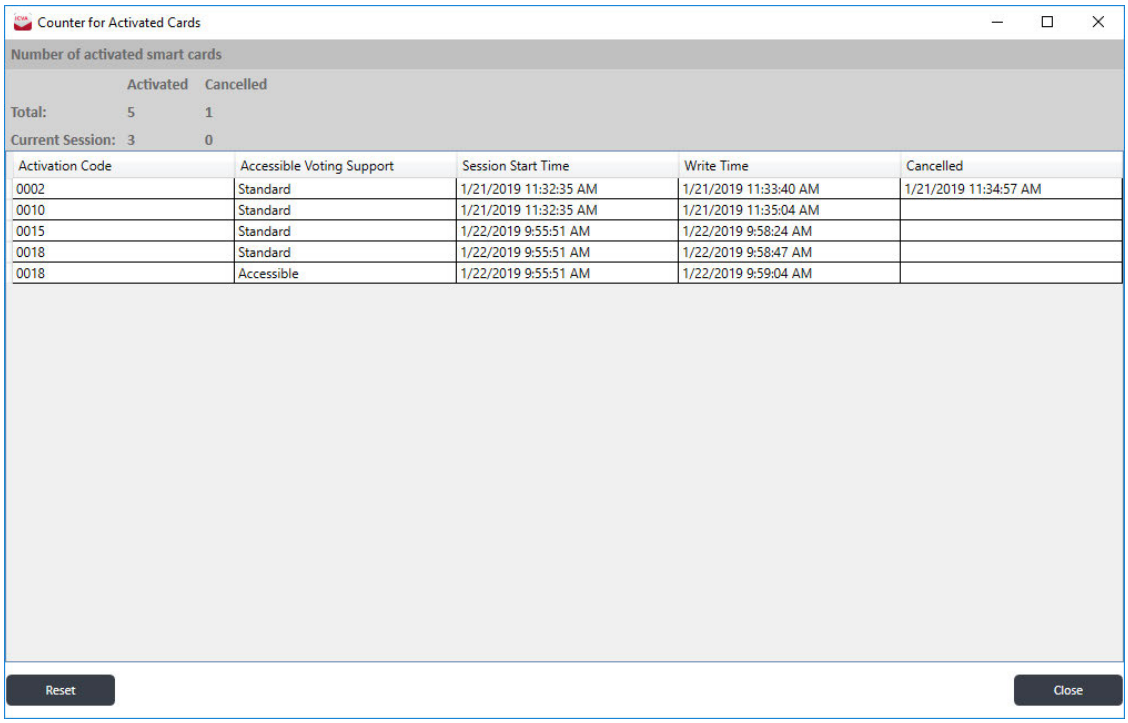

Figure 5-2: Counter of Activated Cards screen

A user can reset (delete) all the content by pressing the Reset button. The can also close the report by pressing the Close button.

REVISION HISTORY

Rev.	Date	Author	Summary
3	04-12-2021	[redacted]	Description update in chapter 2.
2	03-22-2021	[redacted]	Style changes and typo corrections made throughout document.
1	06-22-2020	[redacted]	Branched for 5.13-CO.

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