

Election Systems & Software (ES&S): Exporting Guide for AuditEngine

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The AuditEngine system can perform ballot image audits. To perform these independent audits of election results, we need districts to export the ballot images and CVR files. The instructions below should help you to successfully export these files. There is a separate document for sending us the data, either by uploading or sending us USB Flash Drives.

ES&S is a leading supplier of voting machines and election software which can be audited by AuditEngine.

1. Exporting ES&S Ballot Images

The following is from the ES&S documentation, on "ElectionWare", Chapter 3 "Produce Module", "Exporting the Ballot Table, Ballot Images and CVRs". These instructions may not match your system exactly.

Exporting the Ballot Table, Ballot Images and CVRs

When the Produce module is active and the Ballots Table View tab is displayed, the ballots table can be exported; selected Ballot Images, with or without their associated Cast Vote Records, can be exported, and Cast Vote Record text for selected contests, with or without write-in images, can be exported.

EV55200_DOC_SOP_EW05Results
Software Version 4.6
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We don't need the "Ballot Table".

ES&S uses the term "Cast Vote Records" for two different things. One is a .pdf file that is associated with the same name as the ballot image, except with a 'c' at the end of the ballot number, and provides the evaluation of the vote on that ballot by the election system as a pdf file. It is produced when producing the ballot images.

The other is a spreadsheet table with .xlsx extension, which lists all the ballots and the evaluation of the vote on those ballots by the election system. To distinguish, this document will call the .pdf files "cast vote record pdfs" and the spreadsheet files "CVR spreadsheet files."

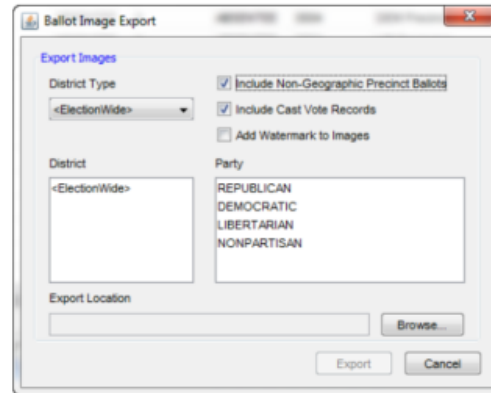
Follow the instructions below to export the ballot images. The numbers relate to the paragraphs in the clippings.

2. Select "Include Non-Geographic Precinct Ballots"
3. Select "Include Cast Vote Records." (This includes the cast vote record pdf files)
4. Do not include a watermark in the images.
5. Select all districts, but only a few at a time so the zip files are not too large. Try to shoot for about 5 to 10 GB, and maybe 20,000 to 50,000 ballots per archive. Note: in some versions of the software, it may automatically split the records into files of a reasonable size.
6. Select all parties.
9. Choose file names like (County)BallotImages.zip, (County)BallotImages-1.zip, (County)BallotImages-2.zip, etc. where (County) is the name of the county. This may be automatic.

To export ballot images, and optionally Cast Vote Records:

1. To export ballots images, select **Export Ballot Images** from the **Tools** menu.

The Ballot Image Export window is displayed.

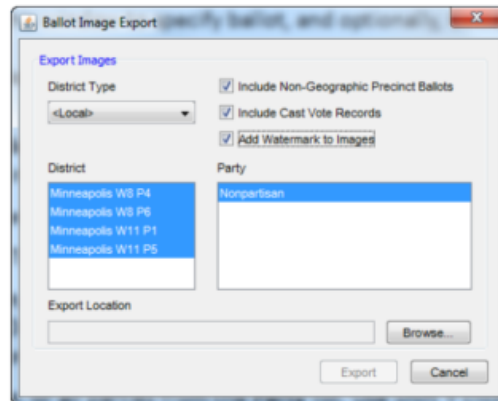


Use the options in this window to specify ballot, and optionally, CVR export parameters.

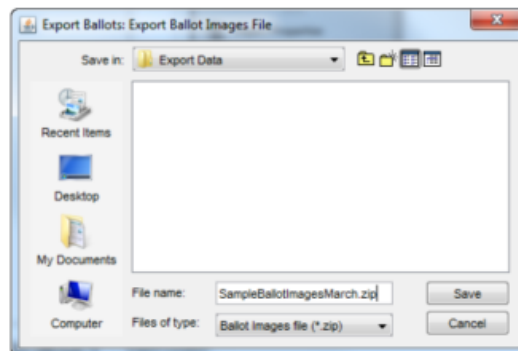
2. Select **Include Non-Geographic Precinct Ballots** to include absentee and early voting ballot images.
3. Select the **Include Cast Vote Records** check box to include these records with the exported ballot images.
4. Select **Add Watermark to Images** to include a watermark on exported ballots.

The watermark identifies the printout as a ballot copy that is not intended for scanning.

5. Select a District Type from the **District Type** pull-down list.
6. Select one, some, or all districts from the **District** list. The District list varies according to the selected District Type. Use Shift + click to select sequential items; use Ctrl + click to select non-sequential items.
7. Select one, some, or all parties from the **Party** list. Use Shift + click to select sequential items; use Ctrl + click to select non-sequential items.



8. Click on the **Browse...** button to display the Export Ballots: Export Ballot Images File dialog box. Navigate to a folder in which to save the file.



9. Enter a name for the .zip file in the **File name** field, then click on the **Save** button.

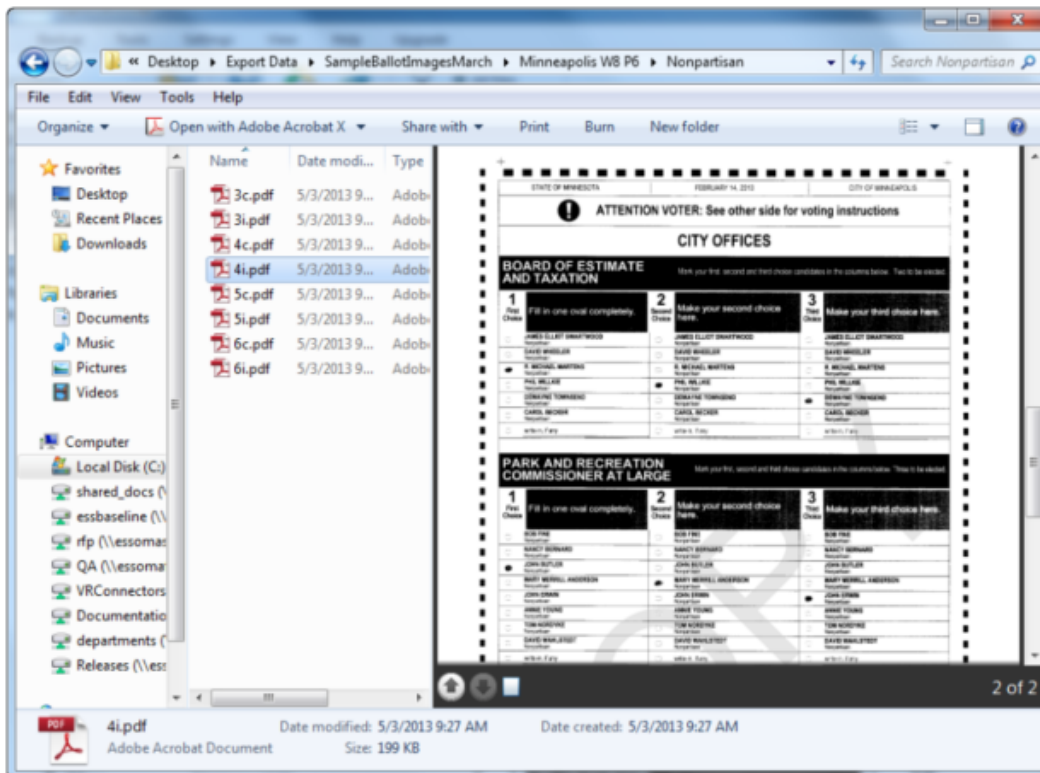
The Ballot Image Export dialog box is redisplayed.

10. Click on the **Export** button to begin the export process.
11. An Information dialog box is displayed, describing the number of Ballot Images included in the export, and export parameters that were specified.
12. Click the **OK** button to return to the Ballots - Table View tab.

Ballot images and cast vote records are exported as individual .pdf files within a *.zip archive. Files are exported in folders, by precinct and party. Each file is identified by cast vote record number, followed by the letter "i" if the file is a ballot image, or the letter "c" if the file is a cast vote record.

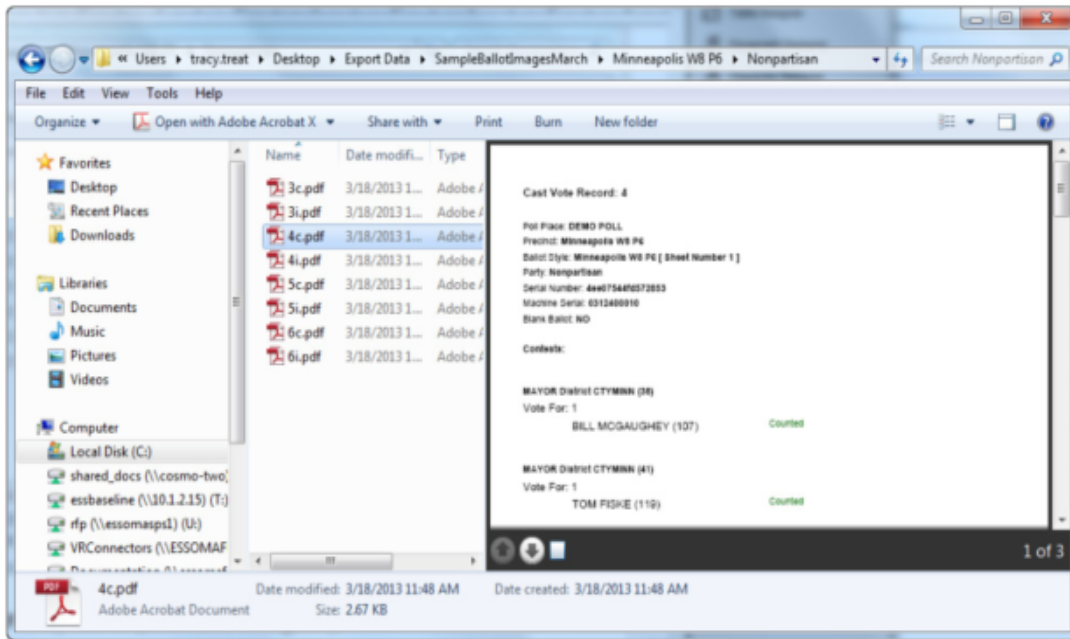
The following screen captures show the contents of an extracted ballot image *.zip archive. The first capture illustrates a ballot image, and the second capture illustrates the cast vote record that corresponds to the ballot image.

Sample Ballot Image with watermark applied:



NOTE: The following refers to the "Cast Vote Record" -- This is regarding the cast vote record PDF files, and they are exported with the ballot images. This is not regarding the CVR Files, which are .xlsx spreadsheets.

Sample Cast Vote Record:



2. Exporting ES&S CVR Files

The CVRs are the cast-vote record tables that are saved by ES&S as Excel spreadsheets with .xlsx extension. These have one record per ballot sheet.

2. Select all contests

3. Select "Include Write-In Images".

4. In some versions of the software, the ElectionWare system automatically splits up the file into reasonable chunks, with only 100,000 lines (99,999 ballots). If not, please limit each file to this number for ease of handling.

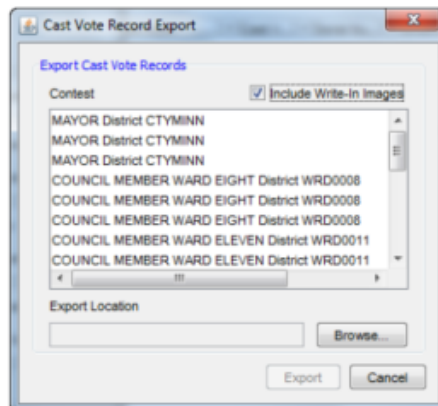
5. Use a name like (County)-CVR.xlsx, (County)-CVR-1.xlsx, etc. where (County) is the name of the county. This may be automatic.

To export Cast Vote Records, and optionally write-in images:

The **Export Cast Vote Records** function exports cast vote record text for selected races, and optionally clippings of write-in selections from the ballots to an (.xls) file

1. Select **Export Cast Vote Records** from the **Tools** menu.

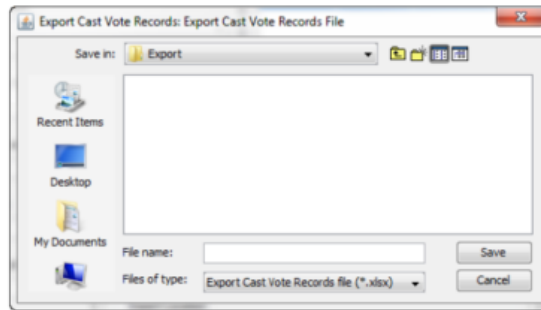
The Cast Vote Record Export window is displayed.



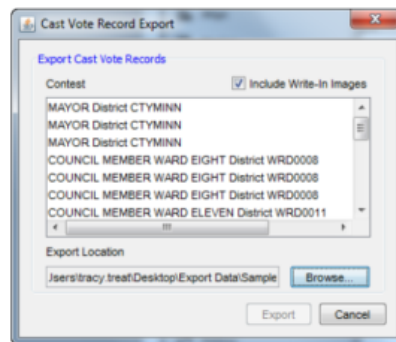
2. Select the names of the contests to be included in the Cast Vote Records to export.

3. Select the **Include Write-In Images** check box to include write-in images from the ballots in the exported Cast Vote Records export file.

- Click on the **Browse** button to navigate to a location in which to save the export file.



- Enter the file's name and the extension ".xlsx" in the **File name** field. Click on the **Save** button.



- Click on the **Export** button to export the file.

When the data has been exported, an Information dialog box is displayed, indicating the total number of exported records.

- Click the **OK** button to return to the Ballots - Table View tab.

The following is a sample of a Cast Vote Record export file:

	A	B	C	D	E	F	G	H	I	J	
1	Cast Vote Record	Precinct	Ballot Style	REP UNITED STATES	REP UNITED STATES	REP STATE SENATOR	ALL REP COUNTY ATTORNEY	REP SHERIFF ALL (105)	DEM UNITED STATE	DEM UNITED STA	DEM STATE
2	2	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote
3	3	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote
4	4	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	DEMOCRATIC CA	DEMOCRATIC CA	DEMOCRATI
5	5	PRECINCT 1	PRECINCT 1	overvote	overvote	overvote	overvote	overvote	undervote	undervote	undervote
6	6	PRECINCT 1	PRECINCT 1	overvote	overvote	overvote	overvote	overvote	undervote	undervote	undervote
7	7	PRECINCT 1	PRECINCT 1	REPUBLICAN CANDID	REPUBLICAN CANDID	REPUBLICAN CANDIDATE	REPUBLICAN CANDIDATE	undervote	undervote	undervote	undervote
8	8	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote
9	9	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote
10	10	PRECINCT 1	PRECINCT 1	REPUBLICAN CANDID	REPUBLICAN CANDID	REPUBLICAN CANDIDATE	REPUBLICAN CANDIDA	undervote	undervote	undervote	undervote
11	11	PRECINCT 1	PRECINCT 1	overvote	overvote	overvote	overvote	overvote	undervote	undervote	undervote
12	12	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote
13	13	PRECINCT 1	PRECINCT 1	undervote	undervote	undervote	undervote	undervote	undervote	undervote	undervote

Please make sure the CVR file includes the "Ballot Style" field.

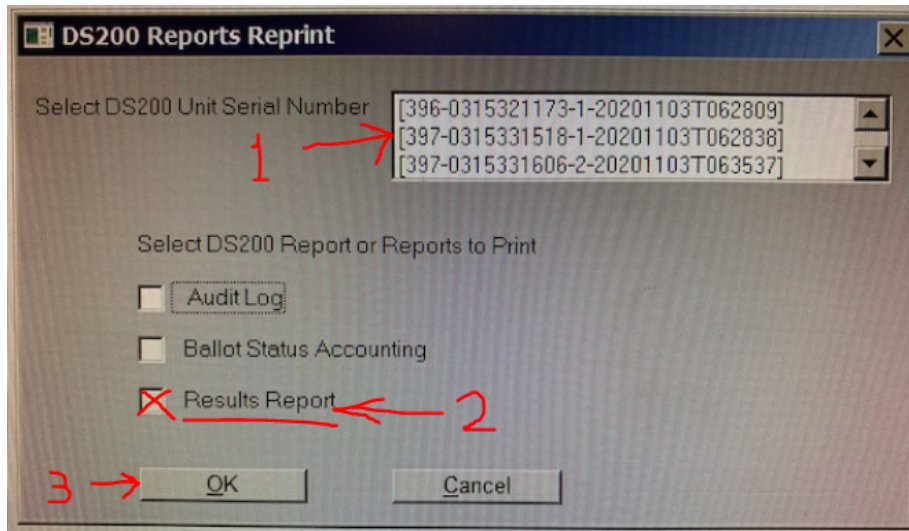
3. Exporting Ballot Style Masters

PDF ballot style masters are the files that are sent to the printer to create the official ballots. We need these PDF files which are in "searchable" format, and not just bit maps to aid in mapping the targets on the ballots without error. They must have the timing marks and style indications on them, just like the official ballots. Please place these in a single ZIP archive and upload using your upload link.

4. Exporting Digital Poll Tapes Reports

The ES&S system can reprint "Results Reports" which are stored in the ElectionWare election management system. Because these reports are existing records which can be easily created as normal functionality of the election management system, they are subject to public records requests, and we recommend that election officials create these and post them for the public to review.

1. Open ERM - Election Reports Manager
2. Select the Election
3. On the top bar, click Tabulators
4. Select DS200
 - a. Select "Reprint DS200 Reports"
 - b. Enter Qualify Code for that Election
 - c. The Box below will appear



- d. You can only run the report one machine at a time.
 - i. 1. Select one of the DS200 Serial numbers each time.
 - ii. 2. Check "Results Report"
 - iii. 3. Click OK

5. The reports are now available in the Report File Utility.
6. Process the report similar to how you process other reports (EL45A, EL30A)
 - a. Note, we prefer .TXT or .LST reports.
7. Repeat steps for each DS200 in the election. (It might be possible to run all the reports in step 4 for all machines, and then process the reports in steps 5 and 6.)