# RLA SOFTWARE COMPLETE REFERENCE GUIDE

Step-by-step instructions for conducting comparison audits using the Secretary of State's RLA Software and Dominion's Democracy Suite® 5.11 voting system



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Overview		3
Election rec	ords	4
Chapter 1: R	RLA Thumb Drive	5
Step 1-A:	Prepare Your RLA Thumb Drive	5
Chapter 2: E	Export RLA Data From Democracy Suite <sup>®</sup>	9
Step 2-A:	Finish 9-day Tabulation and Adjudication	9
Step 2-B:	Export the CVR File	9
Step 2-C:	Export the ENR Results File	
Step 2-D:	Safely Eject the RLA Thumb Drive	13
Chapter 3: F	Finish Preparing for the RLA	15
Step 3-A:	Install the Chrome Web Browser on your RLA Workstation	15
Step 3-B:	Download RLA Files and Utilities from CDOS FTP Site	15
Chapter 4: I	Format the Ballot Manifest	21
Step 4-A:	Formatting the Ballot Manifest	22
Step 4-B:	Sorting the Ballot Manifest	22
Chapter 5: In	mport and Modify the CVR File	27
Step 5-A:	Open Excel	27
Step 5-B:	Open Excel's Text Import Wizard	27
Step 5-C:	Specify Data Formats and Rules	28
Step 5-D:	Save Modified CVR Data as New CSV File	
Chapter 6: V	Verifying the Ballot Manifest and CVR	35
Step 6-A:	Determine Number of Ballot Cards in Ballot Manifest	35
Step 6-B:	Determine Total Number of Ballot Cards in CVR File	
Chapter 7: H	lash the Ballot Manifest and Modified CVR File	
Step 7-A:	Launch and Configure the QuickHash Utility	37
Step 7-B:	Hash the Ballot Manifest and Save the Hash Value	
Step 7-C:	Hash the CVR File and Save the Hash Value	41
Chapter 8: L	Jpload RLA Files to CDOS FTP Site	43
Step 8-A:	Log in to CDOS FTP Site	43
Step 8-B:	Navigate to RLA_current election subfolder	43
Chapter 9: L	Jpload Files to the RLA Software	45
Step 9-A:	Insert RLA Thumb Drive in RLA Workstation	45

# RLA Software Complete Reference Guide

Step 9-B:	Log into RLA Software and Upload RLA Data	45
Step 9-C:	Upload Hashed Ballot Manifest	46
Step 8-D:	Upload Hashed CVR File	50
Step 9-E:	Log Out of RLA Software and Wait for State to Start Audit	53
Chapter 10:	Download the Ballot List	55
Step 10: Do	ownload Ballot List	55
Chapter 11:	Audit Boards Sign in and Conducts First Audit Round	57
Step 11-A:	Sign in Audit Boards	57
Step 11-B:	Ballot Card Verification	60
Step 11-C:	Reporting Voter Markings	61
Step 11-D:	Reviewing Voter Markings	65
Step 11-E:	Re-audit	66
Step 11-F:	Concluding the Audit Round	67
Appendix I: C	Obtaining Ballot Images from Democracy Suite	69

## **OVERVIEW**

Section 1-7-515, C.R.S., requires Colorado counties to conduct a new type of postelection audit, called risk-limiting audits (or RLAs), beginning in 2017. On August 11, 2017, the Secretary of State adopted new Election Rule 25, specifying the manner in which random and risk-limiting post-election audits must be conducted in Colorado. Rule 25.1 contains definitions generally applicable to risk-limiting audits. Election Rule 25.2 prescribes the procedures for conducting risk-limiting audits. Election Rule 25.3 allows the Secretary of State to waive the RLA requirement and permit a county to conduct a random audit instead, and lays out the procedures for a random audit. Election Rule 25.4 addresses removal of audit board members.

There are two types of RLAs: *comparison audits* and *ballot-polling audits*. Counties using vote tabulation systems capable of exporting ballot-level cast vote records (CVRs) – such as Dominion's Democracy Suite® 5.11 and Clear Ballot's ClearVote® 1.4.1 voting systems – must conduct comparison audits. Counties using older voting systems that are not capable of exporting CVR data files must conduct ballot-polling audits, which are the least efficient type of RLA.

This guide contains specific step-by-step instructions for county audit administrators and county audit boards to prepare for and conduct *comparison audits*, using the Dominion voting system and the Secretary of State's RLA Software.<sup>1</sup>

Note: Most of the pictures in this guide show examples from the 2017 Coordinated Election. Of course, when saving, naming or retrieving RLA-related folders and files, you should use the current election type and year (e.g. 2018 Primary, 2020 General) instead.

<sup>&</sup>lt;sup>1</sup> In the future, this guide may be updated to include step-by-step instructions for counties using the Clear Ballot system to export the data required for RLAs. Until then, Clear Ballot users should contact <u>Voting.Systems@sos.state.co.us</u> with any system-specific questions.

If you have questions or encounter problems with any step in this guide, please contact the RLA team (Jessi Romero, Danny Casias, or Eddie Morgan) at 1-877-436-5677. We will assist you over the phone, or remotely via GoTo Meeting. Some additional resources for counties to use for the RLA can be found on the CDOS FTP in the RLA/RLA\_general information folder.

#### **ELECTION RECORDS**

Some documents used in and produced for a risk-limited audit are election records, and as such must be stored by the county for 25 months following the election. These documents, which are mentioned later in this guide, are:

- The Ballot Manifest
- The CVR (the original must be stored, any public release should be reviewed and redacted appropriately)
- Final Reports produced by the RLA Software
- Ballots

Please reach out to the Secretary of State's office if you have questions about records retention or redaction.

# CHAPTER 1: RLA THUMB DRIVE

Colorado Election Rule 20.5.3 requires that counties may only use thumb drives that are reformatted immediately before inserting them into a voting system. Due to this **you should use a fresh—never been used before thumb drive to retrieve the required files from your voting system.** In this section you'll be able to do a few of the setup steps before inserting the thumb drive into the internet connect computer, the rest will be explained later in the guide.

#### Step 1-A: Prepare Your RLA Thumb Drive

1. Insert a thumb drive into the USB port of your EMS server or client. Open Window's File Explorer by clicking on the icon that looks like a file folder in the left hand corner of the task bar at the bottom of your display.



2. In File Explorer, double-click the icon representing your RLA thumb drive.

In the examples below, the thumb drive is named "CDOS," and the operating system assigned drive letter (F:) to the thumb drive. Your thumb drive will have a different name (often, the manufacturer's name), and your operating system may assign your thumb drive a different drive letter.



3. Right click on a blank area in the right hand pane of the File Explorer utility, and select **New** → **Folder** from the drop-down menu.



4. In the highlighted folder name field, name the folder RLA plus the election year and type (e.g. RLA2018 Primary), then press enter on your keyboard.



# CHAPTER 2: EXPORT RLA DATA FROM DEMOCRACY SUITE<sup>®</sup>

This chapter demonstrates how to print the reports and export the data files that you will need for the RLA from your Dominion EMS server or client.

#### Step 2-A: Finish 9-day Tabulation and Adjudication

Before printing the reports and exporting data that you will need for the RLA from your Dominion EMS server or client, make sure that you or your election judges (as applicable) finish the following tasks by the 9<sup>th</sup> day after Election Day, as required by Election Rule 25.2.2(f).

- Scanning all verified ballots (other than property owner and provisional ballots) received by the close of business on the 8<sup>th</sup> day after Election Day.
- 2. Adjudicating all blank ballots and ballots with overvotes, write-in votes and ambiguous markings, that queued or presented for human adjudication in the adjudication application.
- 3. Validating and publishing all results in the Results, Tally and Reporting (RTR) application.

#### Step 2-B: Export the CVR File

With the RLA thumb drive in the USB port of your Dominion EMS server or client.

- 1. On your Dominion EMS client or server, open the Results, Tally and Reporting (RTR) application.
- 2. Navigate to the **Actions** menu, click the **Export** menu item, and then click the CVR Export sub-menu item.



a. The CVR Export screen will appear.

-	CVR Export 📃 🗖 🗙
Batch:	<< ALL >> •
Tabulator:	<< ALL >> •
Precinct:	<< ALL >> •
Ballot Type:	<< ALL >> •
Contest:	<< ALL >> •
	Create separate file per batch
_	Published batches only
	Use tabular format
	Export Cancel

- i. Leave the filters with drop-down menus if the top five fields set to All
- ii. Place a check mark in **Published batches only** and **Use tabular** format boxes (VERY IMPORTANT!)
- iii. Click Export
- iv. An **Info** dialog box will appear and indicate where your file is saved.



v. Take note of this file path (we suggest taking a picture of the file path with your phone, or writing it down on a piece of paper and keeping it handy.

vi. Go back to CVR file path **Info** screen in RTR. Once you have noted the location of the CVR file, click **Close**.



vii. Navigate to the location of the CVR file you just noted and copy the CVR export file from your Dominion EMS client or server to the folder for the current election on your RLA thumb drive.

IMPORTANT: Copy the CVR export file from its location on the Dominion EMS server or client to your RLA thumb drive by using the copy and paste commands (**Ctrl-C** to copy, **Ctrl-V** to paste), but **do not** open the CVR in Excel by double-clicking the file and then "saving as" to the RLA thumb drive. If you do that, Excel will convert any entry in the ImprintedID field that looks like a date to Excel's date format. For example, Excel may convert ImprintedID "12-6-37" to "6-Dec 1937." That automatic reformatting may make it difficult for your audit board to locate and retrieve randomly selected ballots during the RLA. We will provide instructions on how to import the CVR file into Excel and retain the original formatting in a later step. For now, just copy the file to your RLA thumb drive, and don't double-click or open it.



#### Step 2-C: Export the ENR Results File

You will need an ENR results file that matches the results reflected in the CVR file. Export the file now, while you are working on the Dominion server or client.

1. Log into RTR. From the top left, select **Start Results Export** 



2. When the export is complete, a confirmation message will display in the lower left hand corner.



- 3. The report will be saved in the location set in your Transfer Points
- 4. Copy the ENR results report to the folder for the current election on your RLA thumb drive.

#### Step 2-D: Safely Eject the RLA Thumb Drive

Simply removing a thumb drive from the USB port of a computer workstation can corrupt the data saved on the thumb drive. To avoid that risk, follow these steps to use Windows' "Eject" function anytime you want to remove a thumb drive.

1. In the right hand corner of the bottom task bar on your Windows desktop, click the "show hidden icons" upward arrow, and then click the thumb drive icon in the pop up menu.



2. In the pop up menu, select the option to eject your thumb drive. In the example below, the proper selection is "Eject CDOS (F:)" Your RLA thumb drive will probably have a different name and drive letter.



3. You will receive a message like this when Windows ejects your RLA thumb drive and it is safe to remove from the USB port of the computer you're using.



# CHAPTER 3: FINISH PREPARING FOR THE RLA

Now that you've finished getting all of the required files from the voting system you can put the rest of the files needed for the RLA onto the thumb drive. Remember, once you've connected the thumb drive to an internet exposed computer, you cannot connect that thumb drive back to the voting system. If you need to get the voting system files again, use a new thumb drive.

# Step 3-A: Install the Chrome Web Browser on your RLA Workstation

The Secretary of State's RLA Software works best with Google's Chrome web browser. If you have not done so already, you can download and install the web browser from the internet for free.

- 1. Open your current web browser, and go to <u>https://www.google.com/chrome/</u>.
- 2. Click the button that says DOWNLOAD CHROME, and follow the step-bystep online instructions.

#### Step 3-B: Download RLA Files and Utilities from CDOS FTP Site

 Log into the CDOS FTP site from your RLA workstation. Using your web browser, go to <u>https://ftps.sos.state.co.us/webclient/Login.xhtml</u>, and enter your user name and password.

CDDS secure file transfer X	-	σ	×
🗧 🔆 🕜 🖡 Secure   https://ftps.sos.state.cous/vebclent/Login.html		*	:
🗄 Apps 📒 Useh/Office Links 💆 ADN 🙏 AT 🚮 EDC 🦂 CoFelling 🛕 COPeak 🛓 COPeak 🛓 COPeak 着 Elin 🎸 Elin 🎸 Elin 🎸 Gaz 🖬 Indy 🖉 KOVR 🛓 Lag 👰 NIDN 🛃 NIP 🦉 NIT 🤮 Politico 🌚 SCORE 🌚 SOS 🍾 R.A. 🖏 TFM 🖞 Views ¥ TW 🔤 Walto			30



This system is the property of the Department of State (CDOS) and may be

If you need help logging into the CDOS FTP site, contact SCORE Customer Support at <u>SCORE.CustomerSupport@sos.state.co.us</u>

2. Navigate to and click on the RLA subfolder of your county folder on the FTP site.



3. Click on the RLA\_general subfolder to reveal its contents and click on the RLA\_general information folder.

Secure	Folders	
Location	/county01/RLA	🔿 💅 🧙 👉 C Applet 🛧 Upload 🔻
	Name \$	
•	<b>RLA_current election</b>	
•	<b>RLA_general information</b>	<b></b>
•	RLA_mock election	
•	mpam-fe.exe	

- 4. Use your mouse to check the boxes to the left of the two files listed below. Then click the **Download** button in the lower left corner of your browser.
  - Hash Values.doc
  - QuickHash-Windows-v 2.8.0.zip

/ (Home	e) > county48 > RLA > RLA_general inform	nation	
	Name ≎		Date M
•	Libre Office	First. select these two	9/10/1
•	C RLA labels	files by clicking the	9/10/1
•	Training	Check Doxes.	5/24/1
•	Ballot Manifest template.c		5/24/1
•	CVR Export Instructions.pdf		5/24/1
•	Hash Values.doc		11/15/
•	QuickHash-Windows-v2.8.0.zip		9/20/1
•	RLA Software Complete Reference	Guide v2.pdf	11/14/



5. Click the compressed file that appears beneath the **Download** button and above the Windows task bar to reveal the four individual files that you downloaded.



6. Windows opens a folder in the Compressed Folder Tools utility. Use your mouse to select all four files, right click your mouse button, then select **Copy** from the drop-down menu.



7. Navigate to the folder for the current election on your RLA thumb drive.



8. Use your mouse to click into the right hand pane of that window, right click your mouse button, then select **Paste** from the drop down menu.



9. You have downloaded to the folder for the current election on your RLA thumb drive all of the files you need from the CDOS FTP site. You may now log out of the CDOS FTP site by clicking the **Logout** button in the top right corner of Chrome, or by just closing the browser.

## CHAPTER 4: FORMAT THE BALLOT MANIFEST

You should have started maintaining a ballot manifest at the time you started counting ballots, as required by Rule 25.2.2(c). The screen shot below shows a sample ballot manifest, and includes some important pointers to ensure your ballot manifest can be uploaded into the RLA Software. The pointers are discussed in more detail immediately following the screen shot.

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3	Arapa onl	y		2		40	Bin #1		an addit	ional row	_	
4	Arapa (Ta	bula	tor	3		36	Bin #1					
5	Arapa ID)			4 		26	BIN #1					
7	Arapahoe		2	1		30	Bin #2					
8	Arapahoe		2	2		36	Bin #2					
9	Arapahoe		2	3		40	Bin #2					
10	Arapahoe		2	4		36	Bin #2					
11	Arapahoe		2	5		40	Bin #2					
12	Arapahoe		3	1		36	Bin #3					
13	Arapahoe		3	2		40	Bin #3					
14	Arapahoe		3	3		36	Bin #3					
15	Arapahoe		3	4		40	Bin #3					
10	Arapahoe		3	5		30	Bin #3					
18	Arapahoe		3	7		36	Bin #4					
19	Arapahoe		3	8		40	Bin #4					
20	Arapahoe		3	9		36	Bin #4					
21	Arapahoe		3	10		40	Bin #4					
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#### **Step 4-A: Formatting the Ballot Manifest**

- Column A County: Enter the name of your county, but don't add a space before or after the name, or the word "County". So Arapahoe County should be entered simply as Arapahoe.
- Column B Tabulator ID: Only use numbers in this column no letters, spaces or other characters. <u>Make sure that the Tabulator ID used in the</u> <u>ballot manifest matches the tabulator number in your CVR</u>.
- 3. Column C **Batch**: Again, only use numbers in this column.
- 4. First Row Headers: Do not change the pre-formatted header fields, or add additional header rows.
- 5. Last Row: Make sure that the final row of your ballot manifest is fully populated in Columns A to E. If you have extra rows populated with only the county name, delete them.

#### Step 4-B: Sorting the Ballot Manifest

Before uploading to the RLA Software, you should sort the ballot manifest in ascending order by **Tabulator ID**, then by **Batch**. Here's one way to do that.

1. In this example ballot manifest, the **Tabulator IDs** and **Batch** numbers appear in random order (this could occur if separate manifests from different tabulators are consolidated into one ballot manifest).

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з	Denve	er	7	7 3	51	TC-000	01										
4	Denve	er	7	7 4	25	TC-000	01										
5	Denve	er	7	7 2	25	TC-000	01		_								
6	Denve	er	1	L 1	51	TC-000	01										
7	Denve	er	1	L 3	51	TC-000	01										
8	Denve	er	1	L 4	25	TC-000	01										
9	Denve	er	1	L 2	25	TC-000	01		_								
10	Denve	er	3	3 1	51	TC-000	01										
11	Denve	er	3	3 3	51	TC-000	01		_								
12	Denve	er	3	3 4	25	TC-000	01		_								
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14	Denve	er	2	s 1	51	TC-000	21		_								
15	Denve	er	2	5 3	51	TC-000	1										
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26				-													
	- ►		Denve	er_PublicLA	TBallotMa	nifest_		•		:	•		1				r
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2. Select the entire sheet by clicking the diagonal arrow immediately above row 1 and to the left of column A.

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2	Di rer	7	1	51	TC-0001								
З	Denve	7	3	51	TC-0001								
4	Denver	7	4	25	TC-0001								
5	Denver	7	2	25	TC-0001								
6	Denver	1	1	51	TC-0001								
7	Denver	1	3	51	TC-0001								
8	Denver	1	4	25	TC-0001								
9	Denver	1	2	25	TC-0001								
10	Denver	3	1	51	TC-0001								
11	Denver	3	3	51	TC-0001								
12	Denver	3	4	25	TC-0001								
13	Denver	3	2	25	TC-0001								
14	Denver	8	1	51	TC-0001								
15	Denver	8	3	51	TC-0001								
16	Denver	8	4	25	TC-0001								
17	Denver	8	2	25	TC-0001								
18	Denver	4	1	51	TC-0001								
19	Denver	4	3	51	TC-0001								
20	Denver	4	4	25	TC-0001								
21	Denver	4	2	25	TC-0001								
22	Denver	2	1	51	TC-0001								
23	Denver	2	3	51	TC-0001								
24	Denver	2	4	25	TC-0001								
25	Denver	2	2	25	TC-0001								
26													-
		Denver	_PublicLA	TBallotMa	nifest_	+	:	4				Þ	

3. Select the **Data** tab at the top, then the **Sort** icon.

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F	File Hor	ne   Insert   I	Page Layout	Formulas	Data Revi	iew View	DYM	O Lab	el ACROBAT	Q Tell	me Dw	vight S	∕₽ Sh	are
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з	Denver	7	3	51	TC-0001									
4	Denver	7	4	25	TC-0001		_							
5	Denver	7	2	25	TC-0001									
6	Denver	1	1	51	TC-0001									
7	Denver	1	3	51	TC-0001									
8	Denver	1	4	25	TC-0001									
9	Denver	1	2	25	TC-0001									
10	Denver	3	1	51	TC-0001									
11	Denver	3	3	51	TC-0001									
12	Denver	3	4	25	TC-0001									
13	Denver	3	2	25	TC-0001		_							
14	Denver	8	1	51	TC-0001									
15	Denver	8	3	51	TC-0001									
16	Denver	8	4	25	TC-0001									
17	Denver	8	2	25	TC-0001									
18	Denver	4	1	51	TC-0001									
19	Denver	4	3	51	IC-0001									

4. In the **Sort** dialog box, click on the down arrow in the **Column – Sort by** field, then select **Tabulator ID** from the down menu.

	₽ \$·	· ♂ - ∓			Denver_	PublicLA	TBallot№	lanifest_	201710	12 - Excel		Ŧ	—		$\times$
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Get [	External Data -	New Query + Co Get & Transfo	Refr Dyna Dyn	resh from amics 365 amics 365	Refresh All - Connectio	æ ≣ Sns Z↓	Z A Z Sort Sort 8	Filter	N 2 N	Text to Columns Data Too	l+■ ⊂ T ▼ ∰	What- Analysis Fo	If Forecas s • Sheet precast	t Outlir	] ie *
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5	Denver		7	3011										•	
6	Denver		1	* <u>A</u>	Level 🗙	( <u>D</u> elete L	evel	E Copy	Level	<b>A</b>	Options		🗹 My da	ta has <u>h</u> e	aders
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9	Denver	1	1		County			values			Ľ,	1102			
10	Denver	3	3		Tabulator ID										
11	Denver		5		# of Ballot	Cards									
12	Denver	3	3		Location										
13	Denver	3	3												
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15	Denver	8	3												
16	Denver	8	3										OK	Cano	el
	<	Denve	er_Pub	licLATBal	lotManife	est_	( + )		:	•					Þ
Rea	ady			Average	: 14.888888	389 Cou	unt: 125	Sum: 1	072		巴		1	+	100%

5. Click the **Add Level** button at the top, click on the down arrow across from **Then by**, select **Batch** from the drop-down menu. Then click **OK**.

Sort					?	$\times$
⁺ <u>A</u> ↓ <u>A</u> dd	Level X Delete Level	E Copy Level	▼ <u>O</u> ption	ns 🗹 My d	ata has <u>I</u>	<u>h</u> eaders
Column		Sort On		Order		
Sort by	Tabulator ID	Values	$\sim$	Smallest to Largest		$\sim$
Then by		Values	$\sim$	A to Z		$\sim$
	County Tabulator ID					
	Batch					
	# of Ballot Cards Location					
				ОК	Car	ncel

6. Your ballot manifest is now sorted in ascending order by **Tabulator ID** and **Batch**. Remember to save the file in CSV format.

		ð	Denv	er Publici Al	BallotMa	nifest 201710	12 - Excel	<b>•</b> –	
F	ile Hor	me Insert P	age I   Formi	Data Revi	e View		ol Q ⊺ell n	ne Dwiah	nt S Q. Share
Image: Set External Data *       New Ouery * Co       Refresh from Dynamics 365       Refresh all *       Image: Set External Dynamics 365       I									
	А	в	с	D	Е	F	G	н	
1	County	Tabulator ID	Batch	# of Ballot	Locatio	1			
2	Denver	1	1	51	TC-0001				
з	Denver	1	2	25	TC-0001				
4	Denver	1	3	51	TC-0001				
5	Denver	1	4	25	TC-0001				
6	Denver	2	1	51	TC-0001				
7	Denver	2	2	25	TC-0001				
8	Denver	2	3	51	TC-0001				
9	Denver	2	4	25	TC-0001				
10	Denver	3	1	51	TC-0001				
11	Denver	3	2	25	TC-0001				
12	Denver	3	3	51	TC-0001				
13	Denver	3	4	25	TC-0001				
14	Denver	4	1	51	TC-0001				
15	Denver	4	2	25	TC-0001				
16	Denver	4	3	51	TC-0001				
17	Denver	4	4	25	TC-0001				
18	Denver	7	1	51	TC-0001				
19	Denver	7	2	25	TC-0001				
20	Denver	7	3	51	TC-0001				
21	Denver	7	4	25	TC-0001				
22	Denver	8	1	51	TC-0001				
23	Denver	8	2	25	TC-0001				
24	Denver	8	3	51	TC-0001				
25	Denver	8	4	25	TC-0001				
	<	Denve	r_PublicLA	TBallotMai	nifest_	+ :			
Rea	dy						) [2] -		+ 100%

7. Since you changed the sort order, you need to save the ballot manifest to your RLA thumb drive to maintain the proper ascending order. Excel displays the following (annoying) message every time you try to save a CSV file. Unless this guide specifically directs otherwise, you should always select **Yes** when you see this message. That is because the RLA Software will not permit you to upload data files unless they are in CSV format.

Microsof	t Excel				$\times$
1	Some features i Do you want to	n your workbo keep using the Yes	ok might be los at format? No	t if you save it as CSV (Comma Help	delimited).

# CHAPTER 5: IMPORT AND MODIFY THE CVR FILE

This chapter explains how to import into Excel the original CVR file that you exported from DemocracySuite<sup>®</sup> in a way that prevents the automatic conversion of **ImprintedID** values into dates. This chapter also explains how to <u>skip</u> importing the **CountingGroup** column into the CVR file that you will upload to the RLA Software.<sup>2</sup>

#### Step 5-A: Open Excel

- 1. Open the Excel program from your computer's start menu.
- 2. Remember: In this case, don't open Excel by double-clicking the CVR file.

#### Step 5-B: Open Excel's Text Import Wizard

1. Select the **Data** tab, then **From Text.** (For Excel 2019 see below)



For Excel 2019 instead go to the **Tell me what you want to do** tab and type **From Text (Legacy),** then select the option of the same name to use the legacy import data wizard.

в		•										_		DOOKT - EXCEL	5	
File	Home	Insert	Pag	je Layout	Formula	s Da	ata Revie	w Vie	ew H	lelp	ACROBA	π	Q١	From Text (Legacy)		
-	👗 Cut		Calibri		× 11 × /	1 AT	= = _	æ	ab wr	ran Tevt		Ge	Ľ.	From Text (Legacy)	R	
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aste •	؇ Format Pa	inter	BI	<u>U</u> +   <u>H</u>	= •   🙅 •	<u>A</u> -	$\equiv \equiv \equiv$	<b>←</b> → =	🗄 Me	erge & (	Center *	\$	G	From Web (Legacy)		
	Clipboard	G.		Fon	t	G.		Aliar	nment		г			From Access (Legacy	)	

<sup>&</sup>lt;sup>2</sup> Condition CVR-1 in the Dominion Conditions of Use requires counties to delete the CountingGroup column from the CVR export before hashing and uploading the file to the RLA Software. Not importing the CountingGroup column into the CVR file that you will upload in the first place is one way of complying with Condition CVR-1.

2. The **Import Text File** dialog box appears. Browse to the folder for the current election on your RLA thumb drive; select the CVR file you exported from the Dominion system, and click **Import.** 



#### Step 5-C: Specify Data Formats and Rules

1. The **Text Import Wizard – Step 1 of 3** dialog box appears. Make sure that the radio button for **Delimited** is selected, check the box next to **My data has headers.**, and click the **Next** button.



2. The **Text Import Wizard – Step 2 of 3** dialog box appears. Check the box next to **Comma**, and select **Next** 

Text Import Wizard - Step 2 of 3				?	$\times$
This screen lets you set the delimiters your dat preview below.	a contains. You c	an see how your	text is affected	in the	
Delimiters I ab Semicolon Comma Comma Detrore Otrore Data greview	elimiters as one				
2017 Denver Coordinated Election CvrNumber ="1"	5.2.16.1 TabulatorNum ="7"	BatchIc Rec ="1" "1	ordId Imprir " ="7-1-	ntedId -1"	^ ~
<	Cancel	< <u>B</u> ack	<u>N</u> ext >	> <u>F</u> inisł	ו

- 3. The Text Import Wizard Step 3 of 3 dialog box appears.
  - a. Instruct Excel to import ImprintedID values as text

In the **Data preview** section at the bottom of this dialog box, select the 5<sup>th</sup> column from the left (the column that contains the **ImprintedID** header) by clicking anywhere in that column with your mouse pointer, and then click the button next to **Text** in the **Column data format** section at the top of the dialog box.

Text Import Wizard - Step 3 of 3					?	)	Х
This screen lets you select each colur Column data format <u>G</u> eneral <u>Text</u> Do not <u>import column (skip)</u>	'General' all remain	t the Data Format. converts numeric ning values to text	values to r <u>A</u> dvanc	numbers, dat ed	e values to	o dates,	, and
General		General	General	General	Text		
2017 Denver Coordinated E: CvrNumber ="1"	lection	5.2.16.1 TabulatorNum ="7"	BatchId ="1"	RecordId ="1"	Imprinte ="7-1-1	edId "	<b>`</b>
	[	Cancel	< <u>B</u> ack	Next	>	<u>F</u> inisł	h

Do not click **Finish** yet. You need to do one more thing in this **Text import Wizard - Step 3 of 3** dialog box.

b. Instruct Excel not to import (or to skip) the CountingGroup column.

To perform this step, you may need to use the horizontal scroll arrows beneath the **Data preview** section to reveal the 6<sup>th</sup> column of the CVR file that contains the **CountingGroup** header.

Select the **CountingGroup** column by clicking anywhere in the column with your mouse pointer. Then click the radio button next to **Do not import column (skip)** from the **Column data format** selections and click **Finish**.

Text Import Wizard - Step	3 of 3				?	×
This screen lets you select e Column data format <u>G</u> eneral <u>T</u> ext <u>Date:</u> MDY O not import column Data <u>p</u> review	ach column and s 'Genera all rema (skip)	et the Data I' converts ining value	Format. numeric valu es to text.	es to numbers, d	date values to	dates, and
General	General	General	General	Text	Skip Colum	m
ordinated Election	5.2.16.1 TabulatorNum ="7"	BatchId ="1"	RecordId ="1"	Impri. pdId ="7-1-1"	CountingGa Mail-In	coup
<		Cance	I <]	Back M	ext >	> <u>F</u> inish

3. The Import Data dialog box appears. You should not have to change anything here. Just make sure that the button next to Existing worksheet is selected, and that the field immediately beneath Existing worksheet is populated with =\$A\$1 (the cell where the data wizard will import the designated data from the CVR file into this new Excel workbook) and click OK.

Import Data	?	×
Select how you want to view this data in you are to view this data in you are to view this data in you are to pivotTable Report	our wo	orkbook.
= SAS1		
P <u>r</u> operties OK	Ca	incel

4. You have successfully imported the raw CVR file into a new Excel workbook. Note that the values in the **ImprintedID** column have not been converted into dates (but now have equal signs and quotation marks), and that the **CountingGroup** column was not included when the other CVR data was imported.

E	5-0-												Boo	ık1 - Exc	el
	ile Home	Insert	Page Lay	out	Formulas	Data	Revie	w View	DYMO Label ACROB	AT Ω	Tell me what you wa	ant to do			
Fro	m From From ess Web Text	From Other Sources *	Exist	ing	New Query +	Show Q	ueries able Sources	Refresh from Dynamics 365	Refresh All v	Ž↓ ZZZ Z↓ Sor	t Filter	ar pply <b>anced</b>	Text to Columns	Flash Fill	Remove Duplicate
	Get I	External Data			Get	& Transfor	rm	Dynamics 365	Connections		Sort & Filter				
A1	<b>.</b>	: X .	fx												
			9												
		Α			В	C	D	E	F		G		H		
1	2017 Denver Co	ordinated E	lection	5.2.16	5.1										
2				T								Directo	or at Large	e (Vote	For=1)
3												Julie B	añuelos		
4	CvrNumber			Tabul	latorNum	BatchId	Recordio	ImprintedId	PrecinctPortion		BallotType				
5	1			7		1	1	="7-1-1"	1340116101 (13401161	01)	Ballot 1 - Type 1				1
6	2			7		1	2	="7-1-2"	1340116101 (13401161	01)	Ballot 1 - Type 1				
7	3			7		1	3	="7-1-3"	1340116101 (13401161	.01)	Ballot 1 - Type 1				0
8	4			7		1	4	="7-1-4"	1340116101 (13401161	01)	Ballot 1 - Type 1				
9	5			7		1	5	="7-1-5"	1340116101 (13401161	01)	Ballot 1 - Type 1				0
10	6			7		1	6	="7-1-6"	1340116101 (13401161	01)	Ballot 1 - Type 1				
11	7			7		1	7	="7-1-7"	1340116101 (13401161	01)	Ballot 1 - Type 1				1
12	8			7		1	8	-"7 1 0"	1340116101 (13401161	01)	Ballot 1 - Type 1				
4.2	•			-			•	17.4.01			Dellet A Tree A				

#### Step 5-D: Save Modified CVR Data as New CSV File

Now save this new Excel file in .CSV format and use a different file name to clearly indicate that it is a modified version of the CVR file originally exported from DemocracySuite.

- 1. Select **File** → **Save As** from the drop-down menu in Excel's ribbon, and browse to the folder for the current election on your RLA thumb drive.
- 2. From the **Save as type:** drop-down menu towards the bottom of the **Save As** dialog box, select **CSV (Comma delimited) (\*.csv)**.
- 3. After you've selected CSV format, you should be able to see the original CVR file exported from DemocracySuite. Single click the original CVR file, which will cause its name to display in the **File name** field of the **Save As** dialog box.
- 4. Click into the **File name** field of the **Save As** dialog box (not the file name of the original CVR file), and add "Modified\_" to the beginning of the new file name, then click **Save**.

X Save As					×
← → ∽ ↑ <mark>  </mark> → TI	his PC > CDOS (F:) > RLA2017	1		✓ Ö Search	RLA2017 🔎
Organize 🔻 New					::: - ?
Videos 1	Name	Date modified	Туре	Size	
GSDisk (C:)	Ballot Manifest Template Example.csv	1/8/2018 10:30 AM	Microsoft Excel C	1 KB	
🔐 CD Drive (D:) 🖊	CVR_Export_20171012120028.csv	10/16/2017 4:01 PM	Microsoft Excel C	32 KB	
CDOS (F:)					
🛖 Home (H:)		3			
🛖 AllFiles (T:)	4				2
¥					
File name: Mod	ified_CVR_Export_20171012120028.csv				~
Save as type: CSV (	(Comma delimited) (*.csv)			4	~
Authors: Dwig	ght Shellman Tags: Add a	tag	Title: Add a	title	_
2	2				
A Hide Folders				Tools - S	ave Cancel

5. You will see the following message again about saving the file in CSV format. Click **Yes**.

Microsoft Excel				$\times$
Some features Do you want t	in your workbo o keep using th Yes	ook might be los at format? No	it if you save it as CSV (Com Help	ma delimited).

# CHAPTER 6: VERIFYING THE BALLOT MANIFEST AND CVR

In the chapters above, you verified that your ballot manifest is correctly formatted and sorted, and you created a modified version of your CVR file that contains the correct **ImprintedID** values, and does not include the **CountingGroup** column as required by the Conditions of Use. This chapter explains how to verify that your ballot manifest reflects the same number of ballot cards as the CVR file. This step is important because, if there is a mismatch between those two files the RLA Software may randomly select ballots for your audit board to examine that either do not exist or are out of order. A selection of a ballot that does not exist in the CVR results in a phantom ballot, which the RLA Software will automatically count as a discrepancy. If this happens, the result could be that you have to complete a second round of auditing, even if your audit boards make all of the correct selections on the ballots that are presented to them.

#### Step 6-A: Determine Number of Ballot Cards in Ballot Manifest

- 1. Open the ballot manifest saved on your RLA thumb drive.
- Highlight all of the cells in column D by left clicking the column header. The number of all ballot cards in all batches in the ballot manifest appears as the Sum in the lower right-hand corner of the window. (Note: In different versions of Excel this number might appear in a slightly different place, but it is in the same general area.)

Write this number down so you can compare it to the CVR in the next step.

1	<b>.</b> 5-					JacksonBa	llotManifes	t.csv [Rea	d-Only	/] - Excel	Edwar	d Morgan 🛛 🖪	a —		
F	ile Ho	ome Ir	nsert Page	2 Layout	Formulas	Data	Review	View	Help	ACROBAT	🖓 Tell m	e what you want	to do	$\beta_{\!$	re
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D	L	•	$\times  \checkmark$	<i>f</i> <sub>x</sub> # 0	f Ballot Ca	rds									~
1	A	B	C or Batch		E	F	G	н		1	J K	L	м	N	
2	Jackson	Tubulut	1 1	25	BOX 1										
3	Jackson		1 2	2 25	BOX 1										
4	Jackson		1 3	25	BOX 1										
5	Jackson		1 4	25	BOX 1										
6	Jackson		1 5	25	BOX 1										
7	Jackson		1 6	5 25	BOX 1										
8	Jackson		1 7	24	BOX 1										
9	Jackson		1 8	25	BOX 1										
10	Jackson		1 5	25	BOX I										-
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	< →	Jacks	sonBallotMa	nifest	+										Þ
Rea	dy					A	verage: 24.	88888889	Cour	nt: 10 Sum: 2	24 🏢 [	■	- I	+ 100	0%

3. Close the Ballot Manifest
## Step 6-B: Determine Total Number of Ballot Cards in CVR File

1. From your RLA thumb drive, double-click the modified version of your CVR file

ਿ <b>⊟ 5</b> ਾ ਟੇ					Mod	lified_CVR_Export	t_201710121200	28.csv - Excel	
File Hon	ne Insert Page Lay	out Formulas	Data	Review	View	DYMO Label	ACROBAT	Q Tell me what you wa	nt to do
Paste V	alibri • 11 • 3 I ∐ •   ⊞ •   ♣		= 8× ≡ €	- ₽W = ⊡ M	rap Text erge & Center	General • \$ • %	• ←0 .00 • 00 →.0	Conditional Format as 0 Formatting ▼ Table ▼ Styles	Cell Insert Delete Format Cells
A3 •	: × ✓ fx								
	А	В	с	D	E		F	G	н
1 2017 Denve	r Coordinated Election	5.2.16.1							
2									Director at Large (Vote For=1)
4 CvrNumber		TabulatorNum	BatchId	RecordId	ImprintedId	PrecinctPortio	on	BallotType	Julie Balluelos
5	1	7	1	1	7/1/2001	1340116101 (1	1340116101)	Ballot 1 - Type 1	1
6	2	7	1	2	7/1/2002	1340116101 (1	1340116101)	Ballot 1 - Type 1	
7	3	7	1	3	7/1/2003	1340116101 (1	L340116101)	Ballot 1 - Type 1	0
8	4	7	1	4	7/1/2004	1340116101 (1	1340116101)	Ballot 1 - Type 1	
9	5	7	1	5	7/1/2005	1340116101 (1	1340116101)	Ballot 1 - Type 1	0
10	6	7	1	6	7/1/2006	1340116101 (1	1340116101)	Ballot 1 - Type 1	
11	7	7	1	7	7/1/2007	1340116101 (1	1340116101)	Ballot 1 - Type 1	1
12	8	7	1	8	7/1/2008	1340116101 (1	1340116101)	Ballot 1 - Type 1	
13	9	7	1	9	7/1/2009	1340116101 (1	1340116101)	Ballot 1 - Type 1	0
14	10	/	1	11	7/1/2011	1340116101 (1	1340116101)	Ballot 1 - Type 1	0
15	11	7	1	12	7/1/2012	1340116101 (1	1340116101)	Ballot 1 - Type 1	
17	12	7	1	13	7/1/2013	1340116101 (1	1340116101)	Ballot 1 - Type 1	U
18	13	7	1	14	7/1/2014	1340116101 (1	340116101)	Ballot 1 - Type 1	0
19	15	7	1	15	7/1/2016	1340116101 (1	L340116101)	Ballot 1 - Type 1	
18 19	14 15	7	1	15 16	7/1/2015 7/1/2016	1340116101 (1 1340116101 (1	1340116101) 1340116101)	Ballot 1 - Type 1 Ballot 1 - Type 1	

2. Click into any cell in **column A** and press **Ctrl-\psi (down arrow)** on your keyboard to go to the final row containing data in column A.

	A	В	С	D	E	F	G	н	1.1	J	K	L	M	N	0	Р	Q	R	S	<b>A</b>
137	133	7	4	6	7/4/2006	134011610	Ballot 1 - 1	1	0	0	0	1						1	0	
138	134	7	4	7	7/4/2007	134011610	Ballot 1 - 1	0	0	1	1	0						1	0	
139	135	7	4	8	7/4/2008	134011610	Ballot 1 - 1	0	1	0	0	0						1	0	
140	136	7	4	9	7/4/2009	134011610	Ballot 1 - 1	1	0	0	0	0						1	0	
141	137	7	4	10	7/4/2010	134011610	Ballot 1 - 1	0	0	1	1	0						1	0	
142	138	7	4	11	7/4/2011	116011613	Ballot 2 - 1	1	0	0	0	1						1	0	
143	139	7	4	12	7/4/2012	134021620	Ballot 3 - 1	1	0	0			1	0				1	0	
144	140	7	4	13	7/4/2013	134021620	Ballot 3 - 1	1	0	0			1	0				1	0	
145	141	7	4	14	7/4/2014	134021620	Ballot 3 - 1	0	0	1			0	1				0	1	
146	142	7	4	15	7/4/2015	134021620	Ballot 3 - 1	0	1	0			1	0				1	0	
147	143	7	4	16	7/4/2016	134021620	Ballot 3 - 1	1	0	0			0	1				1	0	
148	144	7	4	17	7/4/2017	132021621	Ballot 4 - 1	0	1	0								1	0	
149	145	7	4	18	7/4/2018	132021621	Ballot 4 - 1	1	0	0								1	0	
150	146	7	4	19	7/4/2019	132021621	Ballot 4 - 1	0	0	1								1	0	
151	147	7	4	20	7/4/2020	132021621	Ballot 4 - 1	1	0	0								1	0	
152	148	7	4	21	7/4/2021	132021621	I Ballot 4 - 1	0	1	0								1	0	
153	149	7	4	22	7/4/2022	133051651	Ballot 5 - 1	1	0	0					0	0	0	1	0	
154	150	7	4	23	7/4/2023	133051651	Ballot 5 - 1	0	0	1					1	0	0	1	0	_
155	151	7	4	24	7/4/2024	133051651	Ballot 5 - 1	1	0	0					0	0	0	1	0	_
156	152	7	4	25	7/4/2025	133051651	Ballot 5 - 1	0	1	0					0	1	0	0	1	
157																				_Ļ
450	)	Modified	d_CVR_Ex	port_20171	012120	+						: •	(							Þ

3. In this example, the last unique CVR number is 152, meaning that the CVR file contains a total of 152 ballot cards. You have successfully verified the ballot manifest and CVR files, because the number of ballot cards in the CVR file matches the number of ballot cards reflected in the ballot manifest. You can close the CVR file – you have not modified it in any way in this chapter, so there is no new data to save.

# CHAPTER 7: HASH THE BALLOT MANIFEST AND MODIFIED CVR FILE

IMPORTANT: Please be sure to follow these steps exactly in the order they are presented. If the order is not followed there may be a discrepancy with your hash value.

## Step 7-A: Launch and Configure the QuickHash Utility

1. You downloaded a compressed (.zip) file containing the QuickHash utility to your RLA thumb drive from the CDOS FTP site in Step 3-B.

o Quick Copy Paste	Copy path	Move Copy to •	Delete Ren	₩ ame					
Clipboard		Org	janize						
→ 👻 🚹 → This PC → CDOS (E:) → 2018 Primary RLA									
2018 Primary RL ^	Name	^		Date					
Mesa	CVR Export	20181004102608		10/2					
MyOfficeDocs	QuickHash-\	Windows-v2.8.0		5/24					
RLA-AUDIT.DB-	Hash Values			10/2					
This DC	🔊 2018 Primary	/ San Juan Ballot	Manifest	10/2					
Parla a	🔊 Motified_CV	🚯 Motified_CVR_Export_20181004102608							
Desktop	Verified 2018	General San Juar	n Ballot Ma	10/2					
Documents									
🕹 Downloads									
👌 Music									
E Pictures									
📲 Videos									
SDisk (C:)									
CD Drive (D:)									
CDOC (F.)									

2. Double-click the .zip folder to reveal its contents, and then launch (doubleclick) **QuickHash\_Windows-v2.8.0-32Bit.exe**.

Name	✓ Туре	Compressed	Password	Size
I QuickHash-Windows-v2.8.0-32Bit.exe	Application	985 KB	No	2,691 KB
QuickHash-Windows-v2.8.0-64Bit.exe	Application	1,123 KB	No	3,667 KB
README.txt	Text Document	17 KB	No	48 KB
🗾 UserManual.pdf	Adobe Acrobat Document	452 KB	No	507 KB

3. Select the **File** tab.



#### 4. Under the Algorithm heading, select the radio button next to SHA256.

# QuickHash v2.8.0 - The easy and convenient way to hash data in Linux, OSX and Windows	-	$\times$
QuickHash v2.8.0 - The easy and convenient way to hash data in Linux, OSX and Windows          Copyright © 2011-2017 Ted Smith         Text       File       Copy       Compare Two Files       Compare Directories       Disks         Algorithm       Single File Hashing       Single File Hashing          SHA256            SHA256            The being hashed         File being hashed         Computed hash will appear here       Expected Hash Value (paste from other utility)		×

## Step 7-B: Hash the Ballot Manifest and Save the Hash Value

1. Click on Select File.

# QuickHash v2.8.0 - The e	asy and convenient way to hash data in Linux, OSX and Windows	_	$\times$
Copyright © 2011-2017 T	ed Smith http://www.quickhash-gui.org		
Algorithm C MD5 C SHA-1 C SHA512 C xxHash32	r "drag and drop" a file here)		
	Computed hash will appear here		
Б  -			_

2. In the **Open existing file** dialog box, browse to your RLA thumb drive, select the original ballot manifest in CSV format, and click **Open.** 

🗧 Y T 📄 > Inis i	PC > CDUS (E) > 2018 Primary KLA	
ize 🔻 New folder		
MyOfficeDocs ^	Name	Di
RLA-AUDIT.DB-1	2018 Primary San Juan Ballot Manifest           2018 CVR_Export_20181004102608	10 10
Desktop Documents Downloads Music	Hash Values     Motified_CVR_Export_20181004102608     QuickHash-Windows-v2.8.0     Werified 2018 General San Juan Ballot Ma	10 5/ 10
Pictures Videos OSDisk (C:)		
CD Drive (D:) CDOS (E:) Home (H:)		
AllFiles (T:)		
File nam	e:	_

3. When you open the original ballot manifest with QuickHash, the utility automatically examines the file and returns a hash value in the second field under the **Single File Hashing** heading.

# QuickHash v2.8.0 - The easy and convenient way to hash data in Linux, OSX and Windows	-	×
Copyright © 2011-2017 Ted Smith         http://www.quickhash-gul.org           Tet         File         File         Compare Two Files         Compare Two Files         Disks           Algorithm         Single File Hashing         Single File Hashing         Single File Hashing         This is the value for SHA-11           G SHA-11         Select File         Complete.         Started at : 26/10/18 10:31:30         This is the value for ballot may file here)           C SHA-12         C 'drag and drop' a file here)         Ended at : 10:31:30         Time taken: 0:00:00         ballot may           E \c2018 Primary RLA\2018 Primary San Juan Ballot Manifest.csv         B939790E57A39FD2557E50A72C6A0AC1884FCF329D4409C1DE9093E993A564D9         B939790E57A39FD2557E50A72C6A0AC184FCF329D4409C1DE9093E993A564D9	e hash r the nifest	
Expected Hash Value (paste from other utility)  HASHINGCOMPLETE!		

4. Double-click on the hash value, to select the entire string.

	(or "drag and drop" a file here)	Ended at : 10:31:30						
		Time taken : 0:00:00						
• 	E:\2018 Primary RLA\2018 Primary San Juan Ballot Manifest.csv							
	8939790E57A39FD2557E50A72C6A0AC1884FCF329D4409C1DE9093E993A564D9							
	Expected Hash Value (paste from other utility)							

5. Right click your mouse, and select **Copy** from the drop down menu.

5 -1 Selec 256 (or "dra 512 ash64	t File Complete.	Started at : 26/10/ Ended at : 10:31:30 Time taken : 0:00:00	18 10:31:30 )	
89397 Expecte	DOE577 Undo Cut Cut Paste Delete UN G Select All Right to left Rea Show Unicode of Insert Unicode of Insert Unicode of	ding order control characters control character	1DE9093E993A564D9	
	Open IME Reconversion			

- 6. If it is not already open, browse to your RLA thumb drive and double-click the Word document called Hash Values.doc. In that document, use your mouse to click beneath the Ballot manifest hash value heading, and press Ctrl-V on your keyboard to paste the ballot manifest's hash value from the QuickHash utility to the appropriate location of the Hash Values document.
- 7. Save (**Ctrl-S**) the **Hash Values** document. You will use that document to copy the ballot manifest's hash value into the RLA Software when you upload the ballot manifest.



## Step 7-C: Hash the CVR File and Save the Hash Value

- 1. Return to the QuickHash utility, click Select File on the File tab.
  - # QuickHash v2.8.0 The easy and convenient way to hash data in Linux, OSX and Windows

Copyrigh	t © 2011	-2017 Ted 9	Smith	http://	www.quickhash-gui.o	rg
Text	File	FileS Co	opy Com	pare Two Files	Compare Directories	Disks
Alg	orithm —	Single	e File Hashi	ng		
	MD5 SHA-1 SHA256 SHA512	Sel (or "o	lect File	Complete op" a here	e. Started at : 12 e) Ended at : 10: Time taken : 0	2/02/18 10:20:21 20:21 :00:00

2. Browse to your RLA thumb drive, select the modified CVR file, and click **Open**.

· · ·	•	., J					.,		1
nize 🔻 🛛 Ne	ew folder						•		?
This PC	^	Name	Date modified	Туре	Size				
Desktop		🖺 2018 Primary San Juan Ballot Manifest	10/23/2018 1:00 PM	Microsoft Excel C	15 KB				
Documents		CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB				
Downloads		🖬 Hash Values	10/23/2018 3:14 PM	Microsoft Word 9	22 KB				
Music		Dotified_CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB				
		QuickHash-Windows-v2.8.0	5/24/2018 10:30 AM	Compressed (zipp	2,594 KB				
		📳 Verified 2018 General San Juan Ballot Ma	10/23/2018 1:00 PM	Microsoft Excel C	15 KB				
Videos									
OSDisk (C:)									
CD Drive (D:)									
CDOS (E:)									
Home (H:)									
AllFiles (T:)									
CDOS (E:)									
Network	~								
	File nan	ne: Motified_CVR_Export_20181004102608			~ A	JIn. ; (*.*)			~
						Open	(	Cancel	

3. If the following error occurs, it means the file is open. Close the file then proceed to step 4.



4. Double-click the CVR's hash value to select the entire string, right click your mouse, then select **Copy** from the drop-down menu.

Select File Complete. (or "drag and drop" a file here) EA2018 Primary RLAAMotified_CVR	Started at : 26/10/18 10:38:57 Ended at : 10:38:57 Time taken : 0:00:00 Export_20181004102608.csv	
9939790657A39FD2557E50A72C64 Expected Hash Value (paste from o  H A S H I N G C OM P L E T E !	Undo Cut Copy Paste Delete Select All Right to left Reading order Show Unicode control characters Insert Unicode control character > Open IME Reconversion	

5. Open (or go back to) the Word document called **Hash Values.doc**, click beneath the **CVR export hash value** heading, and enter **Ctrl-V** from your keyboard to paste the CVR's hash value from QuickHash to the Word document.

County:

San Juan

Ballot manifest hash value:

8939790E57A39FD2557E50A72C6A0AC1884FCF329D4409C1DE9093E993A564D9

CVR export hash value:

8939790E57A39FD2557E50A72C6A0AC1884FCF329D4409C1DE9093E993A564D9

6. Save (**Ctrl-S**) the **Hash Values** document. You will use that document to copy the CVR file's hash value into the RLA Software when you upload the modified CVR file.

## CHAPTER 8: UPLOAD RLA FILES TO CDOS FTP SITE

Before you log in or upload files to the RLA Software, please first upload to the CDOS FTP site the **1**) completed **Hash Values** document, **2**) hashed ballot manifest and **3**) hashed modified CVR file.

## Step 8-A: Log in to CDOS FTP Site

1. See Chapter 1, Step 3-B, for instructions on how to log into the CDOS FTP site.

## Step 8-B: Navigate to RLA\_current election subfolder

1. Navigate to and click the **RLA\_current election** folder in the RLA subfolder of your county folder.



#### 2. Click the **Upload** button.



- 3. When the **Open** dialog box appears, browse or navigate to the folder for the current election on your RLA thumb drive, select the following three files while holding the **Ctrl** key on your keyboard, then click **Open**.
  - The ballot manifest in CSV format (not the verified version containing the formula in XLS or XLSX format)
  - The **Hash Values.doc** file, containing the name of your county, the path of your original CVR export, and the hash values for your ballot manifest and modified CVR file
  - The **Modified\_CVR\_Export.csv** file in CSV format (not the version of that file originally exported from the Dominion system)

📀 Open							×
← → ~ ↑ 📙	> This PC > CDOS (E:) > 2018 Primary RLA			ע ט S	earch 2018 Primary I	RLA	,p
Organize 🔻 Nev	folder				8== ·	•	?
MyOfficeDocs	^ Name ^	Date modified	Туре	Size			
RLA-AUDIT.DB	2018 Primary San Juan Ballot Manifest	10/23/2018 1:00 PM	Microsoft Excel C	15 KB			
This PC	CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB			
Deskton	Hash Values	10/23/2018 3:14 PM	Microsoft Word 9	22 KB			
Documentr	Dotified_CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB			
Develanda	QuickHash-Windows-v2.8.0	5/24/2018 10:30 AM	Compressed (zipp	2,594 KB			
Downloads     Music     Pictures     Videos     OSDisk (C:)     CD Drive (D:)     CDOS (E)     Home (H:)     AllFiles (T;)	佩희 Verified 2018 General San Juan Ballot Ma	10/23/2018 1:00 PM	Microsoft Excel C	15 KB			
	"     "Hash Values" "Motified_CVR_Export_2018"	004102608" "2018 Prima	y San Juan Ballot Mani	fest" v /	All Files		~
				L	Open	Cancel	

4. The **RLA\_current election** folder now contains the three individual files, and the status message shows you the upload was completed successfully.



5. Log out of the CDOS FTP site.

## CHAPTER 9: UPLOAD FILES TO THE RLA SOFTWARE

Each county must designate at least one person to act as the county audit administrator. The county audit administrator is responsible for uploading the county's ballot manifest and modified CVR file to the RLA Software, and launching the audit sessions during which the county's bipartisan audit boards examine and report voter markings from randomly selected paper ballots. The county audit administrator must have SCORE user credentials.

#### Step 9-A: Insert RLA Thumb Drive in RLA Workstation

- 1. Insert your RLA thumb drive into a USB port of your internet-connected RLA workstation.
- 2. Navigate to the folder for the current election on your RLA thumb drive, and open **Hash Values.doc**. You will copy hash values from that document and paste them into the RLA Software during the uploading process.

## Step 9-B: Log into RLA Software and Upload RLA Data

- 1. Open Chrome and open an incognito window by entering **Ctrl+Shift+N** after you've started Chrome.
- 2. In the new incognito window, navigate to the RLA Software at <u>https://rla.sos.colorado.gov/login.</u>
- 3. At the **CORLA User Login** screen, the county audit administrator enters his or her SCORE username and password.

CORLA U	ser Login
User ID	
Password	
Submit	

4. Enter the responses to the grid challenges from your Entrust grid card and click on **Submit**.

CORLA	User	Login	

•••			
bmit			

The Colorado RLA Tool is Copyright (C) 2017 the Colorado Department of State, and is licensed under the AGPLv3 with a classpath exception. See the project's GitHub site for more information.

## Step 9-C: Upload Hashed Ballot Manifest

1. Once you are logged into the RLA Software, select the Browse button to the right of the Ballot Manifest file field:.

≡ Colorado RLA	倄 Home	€→
Hello, Alamosa County!		
Upload the ballot manifest and cast voter records (CVR) files. These need to be CSV files. After uploading the files wait for an email from the Department of State saying that you can continue t	the audit.	
Ballot Manifest		
SHA-256 hash for Ballot Manifest Click to Edit		
Upload		
CVR Export Browse		
SHA-256 hash for CVR Export Click to Edit		
Upload		
Intermediate audit report (CSV) Download		-

2. When the Open dialog box appears, browse to and select the ballot manifest file in CSV format in the folder for the current election of your RLA thumb drive, then click Open:.

💿 Open							×
$\leftarrow \rightarrow \cdot \uparrow$	> CDO	DS (E:) > 2018 Primary RLA			v ق S	earch 2018 Primary RLA	Ą
Organize 🔻 🛛 Ne	ew folder						•
💻 This PC	^	Name	Date modified	Туре	Size		
E. Desktop		📳 2018 Primary San Juan Ballot Manifest	10/23/2018 1:00 PM	Microsoft Excel C	15 KB		
Documents		Log CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB		
L Downloads		🖬 Hash Values	10/23/2018 3:14 PM	Microsoft Word 9	22 KB		
Music		🚯 Motified_CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 KB		
		QuickHash-Windows-v2.8.0	5/24/2018 10:30 AM	Compressed (zipp	2,594 KB		
Pictures		🚯 Verified 2018 General San Juan Ballot Ma	10/23/2018 1:00 PM	Microsoft Excel C	15 KB		
Videos 📔							
OSDisk (C:)							
🔐 CD Drive (D:)							
CDOS (E:)							
🛖 Home (H:)							
🛖 AllFiles (T:)							
CDOS (E:)							
Vetwork	*					-	
	File nan	ne:			~ /	All Files	$\sim$
					[	Open 🔽 Ca	ancel
						open  •	

3. Go to the Hash Values.doc document, select the complete hash value string for the ballot manifest, right click your mouse, and select **Copy** from the drop-down menu.

<u>County</u> :			Select the en	tire string of the
Alamosa			ballot manifes Make sure th spaces at the	st hash value. ere are no extra e end of your
File path of the	e C	VR file:	selection.	
D:\NAS\Export	ing	g CVR data F	Risk Limiting Audits\Results \CVR_Export_1	07132322.csv
Ballot manifes	Cali B	bri - 11 - <i>I</i> <u>⊔</u> ª⊻ - <u>A</u> -	$\begin{array}{c} \cdot & A^* & A^* & A^* \\ \hline & \vdots & \vdots & \vdots & \cdot \\ \hline & \vdots & \vdots & \cdot \\ \end{array} $ Styles	
D6CC5BC0195	ž	Cut	C12D2BDFF0896A07EE65EE6B52C09C544D05DI	D1DA
CVR export ha		Copy Paste Options:		
B275448698F4	A	Eont	ECEAE8BF8CB4BE5C5D8514E8F8FB6771F598F2F	42
	Ē	<u>P</u> aragraph		

4. Go back to the Chrome web browser and click into the **SHA-256 hash for Ballot Manifest** field of the RLA Software.

≡ Colorado RLA	A Home E→
Hello, Alamosa County!	
Upload the ballot manifest and cast voter records (CVI After uploading the files wait for an email from the Dep	R) files. These need to be CSV files. Partment of State saying that you can continue the audit.
Ballot Manifest Browse	Click into this field
SHA-256 hash for Ballot Manifest Click to Edit	
CVR Export Browse	
SHA-256 hash for CVR Export Click to Edit Upbed	
Intermediate audit report (CSV) Cownbast	

5. Right click your mouse, and select **Paste** from the drop-down menu.

E Colorado RLA		∦ Home [→
Hello, Alan	nosa County!	
Upload the ball After uploading	ot manifest and cast voter i g the files wait for an email i	records (CVR) files. These need to be CSV files. from the Department of State saying that you can continue the audit.
Ballot Manifest	Brow	vse
SHA-256 hash for Bal	lot Manifest	Right click your mouse and
Upload	Undo Ctrl+Z Redo Ctrl+Shift+Z	down menu
CVR Export	Cut Ctrl+X Copy Ctrl Paste Ctrl+V	
	Pasteras plain text Ctrl+Shift+V Brow Select all Ctrl+A	se
SHA-256 hash for C Click to Edit	Spellcheck   Writing Direction	
Upload	Inspect Ctrl+Shift+1	
Intermediate audit repor	t (CSV)	

6. The ballot manifest hash value now appears in the proper field. Click the **Upload** button.

≡ Colorado RLA	A Home →
Hello, Alamosa County!	
Upload the ballot manifest and cast voter records (CVR) files. These need to be CSV files. After uploading the files wait for an email from the Department of State saying that you can continue	the audit.
Ballot Manifest Browse	
SHA-256 hash for Ballot Manifest GA42E7128B6ACB6776A71A0D4B6F54EA36034EDA9ECA6A593B684CDDAA843C55 Upload	
CVR Export Browse	
SHA-256 hash for CVR Export Click to Edit	
Upbad Intermediate audit report (CSV) Downbad	

7. You will see these messages when you successfully upload the hashed ballot manifest.

Colorado RLA	Imported ballot manifest "Ballot M	Manifest.csv". ×	A Home
ello, Alamosa County			
Upload the ballot manifest and cast	voter records (CVR) file	es. These need to be CSV	files.
After uploading the files wait for an o	email from the Departm	ent of State saying that ye	ou can continue the audit.
allot Manifest lle name: "Ballot Manifest.csv" HA-256 hash: 6A42E7128B6ACB6776A71A0D4B6F54EA36034E	DA9ECA6A593B684CDDAA843C55		_
Re-upload			-
CVR Export			
	Browse		
SHA-256 hash for CVR Export			
Click to Edit			
Upload			
Upload			

## Step 8-D: Upload Hashed CVR File

1. Click the **Browse** button next to the right of the **CVR Export** field.

ello, Alamosa County!	
Upload the ballot manifest and cast vote After uploading the files wait for an emai	r records (CVR) files. These need to be CSV files. I from the Department of State saying that you can continue the audit.
iallot Manifest Ile name: "Ballot Manifest.csv" IHA-256 hash: 6A42E7128B6ACB6776A71A0D4B6F54EA36034EDA9EC/ Re-upload	↓           A6A593B684CDDAA843C55
CVR Export	rowse
SHA-256 hash for CVR Export Click to Edit	

2. When the **Open** dialog box appears, browse to and select the modified CVR file in the folder for the current election of your RLA thumb drive, then click **Open**.

0 Open							×
$\leftarrow \rightarrow \land \uparrow $	CDOS (E:) > 2018 Primary RLA			√ Ū	Search 2018 Primar	y RLA	P
Organize 👻 New	folder					•	?
💻 This PC	^ Name	Date modified	Туре	Size			
Desktop	🚯 2018 Primary San Juan Ballot Manifest	10/23/2018 1:00 PM	Microsoft Excel C	15 K	В		
Documents	CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 K	В		
Downloads	Hash Values	10/23/2018 3:14 PM	Microsoft Word 9	22 K	В		
Music	Motified_CVR_Export_20181004102608	10/23/2018 1:00 PM	Microsoft Excel C	15 K	В		
	QuickHash-Windows-v2.8.0	5/24/2018 10:30 AM	Compressed (zipp	2,594 K	В		
Pictures	🔛 Verified 2018 General San Juan Ballot Ma	10/23/2018 1:00 PM	Microsoft Excel C	15 K	В		
Videos 🖌							
OSDisk (C:)							
🔐 CD Drive (D:)							
CDOS (E:)							
🛖 Home (H:)							
🛖 AllFiles (T:)							
CDOS (E:)							
💣 Network	¥						
F	ile name:			~	All Files		$\sim$
					Open	Cancel	

3. Go to the **Hash Values.doc** document, select the complete hash value string for the modified CVR file, right click your mouse, and select **Copy** from the drop-down menu.





4. Go back to the Chrome web browser and click into the SHA-256 hash for CVR Export field of the RLA Software.

ello, Alamosa County! Jpload the ballot manifest and cast voter records (CVR) files. These need to be CSV files. After uploading the files wait for an email from the Department of State saying that you can continue the audit	
Jpload the ballot manifest and cast voter records (CVR) files. These need to be CSV files. After uploading the files wait for an email from the Department of State saying that you can continue the audit	-
After uploading the files wait for an email from the Department of State saying that you can continue the audit	
liot Manifest a mane: "Ballot Manifest.csv"  A-256 hash: 6A42E7128B6ACB6776A71A0D4B6F54EA36034EDA9ECA6A593B684CDDAA843C55  ce-upload	
CVR Export Click into this field	
SHA-256 hash for CVR Export	
Click to Edit	
pload	
termediate audit report (CSV)	

5. Right click your mouse, and select **Paste** from the drop down menu.

SHA-256 hash fo	or CVR Exp	ort	
	<b>Undo</b> Redo	Ctrl+Z Ctrl+Shift+Z	
Upioad	Cut	Ctrl+X	
I	Сору	Ctrl+C	
Intermediate audi	Paste	Ctrl+V	
Download	Paste as pla	ain text Ctrl+Shift+V	-

6. The hash value for the modified cast vote record file now appears in the proper field. Click the **Upload** button.

CVFeExport	
Modified_CVR_Export_1140.csv	Browse
SHA-256 hash for CVR Export	
BD101/98AECC53/9EBD66BAB4/66F/E911BAC88:	DBC5BE8646B9C46B39408267
opioau	

7. You will see these messages when you successfully upload the hashed modified cast vote record file (it may take a little while to upload the CVR).



## Step 9-E: Log Out of RLA Software and Wait for State to Start Audit

1. You have uploaded all of the data for your county that the Secretary of State's office requires. Log out of the RLA Software by closing your browser, and wait for the state to start the risk-limiting audit for all counties the morning after the deadline for completing the uploading process.

## CHAPTER 10: DOWNLOAD THE BALLOT LIST

#### Step 10: Download Ballot List

- 1. When the Secretary of State's office notifies you that the risk-limiting audit has been defined and started at the state level, the county audit administrator must log into the RLA Software. See Chapter 9, Step 9-B for RLA Software log in instructions.
- 2. Before your audit board arrives or convenes, download the list of ballots to audit by clicking on the **Download** button under the heading **Intermediate audit report (CSV)**. When the file is done downloading, you can open it by clicking on the icon in the lower left corner of your browser. Alternatively, you can skip to step 5 in this list to download the list by audit board and organized by storage location after the number of audit boards have been selected.

You	may now perform round 1 of the audit.
Bal File SHA	Iot Manifest name: "adams-manifest.csv" -256 hash: 87ED7F1732CB4CA89162A73504D7F682F0C5AB8A5B175C8B0AF3C232E772A4A vnload
CVI File I SHA	R Export name: "adams-cvrexport.csv" •256 hash: E71BF230547843DCD91DF413D06493C0D2C6511BEAD69DCE5E6FB7FF02A43EI wnload
List of Downle	ballots to audit (CSV)
How m	any audit board a will be auditing?
adams-	general-10xlsx ^

3. The intermediate audit report will open in Excel. To see the ballot list click on the **Round 1** tab at the bottom of the worksheet.



- 4. You can use the list of ballots to organize ballot containers and other materials so things go smoothly and quickly when the audit boards begin their work. But it's important to note that county elections staff <u>may not</u> <u>open the sealed ballot containers or retrieve any individual ballots unless</u> the audit board members are present.
- 5. If you would like to organize ballots by audit board team you can use the **List of ballots to audit (CSV)** after first selecting the number of audit boards you are going to use in that audit round.

Intermediate audit report (CSV) Download				
List of ballots to audit (CSV)				
Download				
How many audit boards will be auditing?				
1				
There are 2 ballot cards to audit in this round.				
Sign in to an audit board				
<b>1</b> Audit Board 1				

## CHAPTER 11: AUDIT BOARDS SIGN IN AND CONDUCTS FIRST AUDIT ROUND

#### Step 11-A: Sign in Audit Boards

- 1. When the audit boards arrive, the county audit administrator must log into the RLA Software. See Chapter 9, Step 9-B for RLA Software log in instructions.
- 2. Select the number of audit boards you would like to use for this round and click the **Enter** button. It may take a second to load the audit boards.

Keep in mind that the number of audit boards cannot be changed once you've selected the number you'd like to use within a round, but in subsequent rounds you can use greater or fewer boards than you'd previously used.

Ballot M	lanifest
File name: SHA-256 ha Download	'adams-manifest.csv" Ish: 87ED7F1732CB4CA89162A73504D7F682F0C5AB8A5B1750
CVR Ex	port
File name: SHA-256 ha Download	'adams-cvrexport.csv" Ish: E71BF230547843DCD91DF413D06493C0D2C6511BEAD69
Intermediate	audit report (CSV)
Download	
Download	s to audit (CSV)
Download List of ballot Download	s to audit (CSV)
Download List of ballot Download How many a	s to audit (CSV) udit boards will be auditing?

- a. At this point you may also download the list of ballots to be audited by clicking the button below the **List of Ballots to Audit (CSV)** heading. The button will not be grayed out once you have selected the number of audit boards you will use in the round. (Also mentioned in Chapter 10, Step 10-5.)
- 3. To proceed to sign in an audit board, click the button for the audit board number you would like to sign in. Orange buttons already have audit board members signed into that audit board.

ow many au	boards will be auditing?
4	Enter
There are 7 ballot c	s to audit in this round.

You should repeat steps 4 to 7 for each audit board.

4. Enter the names and party affiliations of both of your county audit board members. Each member must have a different party affiliation. Then click **Sign In**.

≡ Colorado RLA	A Home [→
Audit Board	
Enter the full names and party affiliations of each member of the Alamosa County Audit Board who will be conducting this audit today:	
Audit Board Member	
First Name: Ronald Last Name: Reagan	
Party Affiliation Democratic Party Republican Party Other Party Unaffiliated	
Audit Board Member	
First Name: Barak Last Name: Obama	
Party Affiliation  Democratic Party Republican Party Other Party Unaffiliated	
Sgnin	

5. The **Ballot Cards to Audit** screen will display. This screen lists each ballot that was randomly selected for the audit. Click on the **Start audit** button when the ballots have been retrieved and your audit board is ready to start reporting voter markings from the paper ballots.<sup>3</sup>

idit Board(s) mu ed ballot cards fo	st locate and i or the initial roo	retrieve, or und of this i	observe a county staf risk-limiting audit:	f member locate	and retrieve,	the following ran
oard 1: Click St	art audit to be	gin reportin	ig the votes you obser	ve on each of the	e below ballot	cards that have
it						
	-					
load ballot list a	IS CSV					
Storage bin	Scanner	Batch	Ballot position	Ballot type	Audited	Audit board
Bin 1	3	800	9	55		1
Bin 1	3	800	19	60		1
3in 17	5	1600	13	45		2
Bin 17	9	3200	31	9		2
Rin 17	9	3200	41	19		3
Bin 17	9	3200	47	24		4

You will notice that the ballots are sorted by storage location, and on the far right the software notes which audit board each ballot was assigned to.

<sup>&</sup>lt;sup>3</sup> At this point you may download the list of ballots to be audited if you did not do so before or would like to for whatever reason by clicking on the **Download ballot list as CSV** button.

## Step 11-B: Ballot Card Verification

- 1. Each county audit board now begins the audit in earnest by reporting the voter markings they observe on each randomly selected paper ballot into the RLA Software.
- 2. Each page of an audit board's user interface corresponds to the next ballot card listed in that audit board's ballot list, starting with the first. The top of each screen identifies the audit board working on that ballot and the audit board's progress through their list. On the left side, the ballot identification information can be found. The audit board should confirm all of this information, especially that the ballot type matches the ballot type in the header of the ballot, before begin making choice for each ballot.<sup>4</sup> If the wrong ballot's marking are entered into the RLA Software, it may result in discrepancies sending your county, or perhaps even the whole state, to another audit round.

# Audit Board 1: Ballot Card Verification

Enter ballot information

Auditing ballo	t card 1 of 2
Current ballot:	Are you looking at the right ballot?
Storage bin: <b>Bin 1</b> Tabulator: <b>3</b> Batch: <b>800</b>	Before making any selections below, first make sure the paper ballot you are examining matches the current ballot information displayed on the left. If you make selections based on the wrong ballot, you may have to audit more ballots later.
Ballot position: 9 Ballot type: 55	Ballot not found - move to next ballot

If your audit board cannot find the correct ballot they should select the red button that says **Ballot not found – move to next ballot**. This should be used only as a last resort. <u>Selecting this button will result in discrepancies for all contests on the ballot and vastly increase the likelihood of another audit round.</u>

<sup>&</sup>lt;sup>4</sup> Some counties use ballot images obtained from the voting system to ensure the ballot they retrieved is the ballot that is being presented by the software. For instructions on how to obtain ballot images, see Appendix I. Remember, under no circumstances should the audit board use the ballot images for entering voter choices into the software. That must always be done from the original ballot submitted by the voter.

As the audit board moves down each page, it should find the same contests and choices as the corresponding paper ballot. If that is not the case, the audit board should stop immediately and try to determine if the right ballot was located.

# Step 11-C: Reporting Voter Markings

1. The audit board must replicate the voter markings from the paper ballot in the RLA Software by selecting the box that contains the candidate or choice the voter made on their ballot. At the top of the selection part of the ballot screen there are some basic instructions to help remind audit boards of these instructions.

Ballot type: 55		Ballot not found - move to next ballot
How to match selections with	ballot	For each ballot contest:
Quantata	x	Select exactly the same voting choices as the voter marked on the paper ballot you are examining.
Overvole	,	Example 1: If the voter marked three candidates on their ballot in this contest, select the exact
Undervote	>	Same line candidates below.
Blank vote	>	"Blank vote – no mark"
Write-in >		Regent of the University of Colorado - At Large

2. Below the instructions the audit board will find each contest as it appears on that particular ballot along with all candidates or choices for that contest, including certified write-in candidates.

Clear Winner	Distant Loser	
No audit board		
consensus	Blank vote - no mark	

Once an audit board makes a selection the box(es) they've selected will be highlighted in blue.

egent of the Univ	versity of Colorado - /	At Large
Clear Winner	Distant Loser	+
No audit board consensus	Blank vote - no mark	

To deselect a choice, the box should simply be clicked again.

3. Sometimes voters make more than one mark, or make too few or no marks, or do other things that are hard to understand. Audit boards can be can be confused about these situations. To help reduce confusion in commonly encountered abnormalities there is a mini-FAQ that scrolls with the audit board on the left side of the ballot screen. If the board encounters any of these situations they can click the appropriate issue and the software will provide guidance.

		Select e
Overvote	>	examin
		Exampl
Undervote	>	same tr
Blank vote	>	"Blank
Write-in	>	Po
We can't agree	>	Re

- 4. Some of the commonly encountered questions the audit board members may have are discussed below. If there is any question about voter intent, please consult the Secretary of State's office's Voter Intent Guide.
  - a. Overvote: If the voter marked too many choices (or in cases when the voter appropriately marked more than once choice) the same choices should be selected in the RLA Software.

lear Winner	Distant Loser
o audit board consensus	Blank vote - no mark

b. Undervote or blank vote: The most common type of undervote is a contest that the voter decided to skip—made no mark. The audit board should select the **Blank vote – no mark** button.

Clear Winner	Distant Loser	
No audit board	Blank vote - no mark	

Like an overvote, if the contests allows the voter to choose more than one candidate, but decides to make fewer than that, the audit board should reflect the choices the voter made exactly. c. Sometimes audit board members may not agree on what the voter intent was. In these situations, the audit board members should consult the Voter Intent Guide and try to come to a consensus. If they cannot, the audit board members should mark the **No audit board consensus** button. However, this selection will result in a discrepancy being reported, which may cause your county or the entire state to audit more ballots. The RLA Software will produce a warning for the audit board if they select this button.

	ومحمد فحمر لماريحم لمحمط فالمربع مطفقهما	
consensus on an interpretation of	voter intent for this ballot.	
	OK Cancel	per ballot you are
ame three candidates below.		_
Example 2: If the voter did not	vote for any of the candidates or choi	ices in this contest, selec
Blank vole – no mark		
Blank Foto no mark		
Regent of the Univ	ersity of Colorado - At La	arge
Regent of the Univ	ersity of Colorado - At La	arge
Regent of the Univ	ersity of Colorado - At La	arge
Regent of the Univ	rersity of Colorado - At La	arge
Regent of the Univ	ersity of Colorado - At La	arge
Regent of the Univ Clear Winner	Distant Loser	arge

- d. Write-in candidates:
  - If the paper ballot contains a write-in vote for a certified write-in candidate, the audit board should select that candidate in the RLA Software. (All certified write-in candidates appear as selections in the software.)
  - If the paper ballot contains a write-in vote for a named candidate, the audit board should select the named candidate in the RLA Software.
  - If the paper ballot contains a write-in vote for an unqualified write-in candidate, the audit board should select **Blank vote – no mark** in the RLA Software.

- e. Withdrawn candidates and contests:
  - If the withdrawn candidate or contest appears as a choice for a particular ballot in the RLA Software, the audit board should faithfully replicate any and all votes for the withdrawn candidate or in the withdrawn contest.
  - If the withdrawn candidate or contest does not appear as a selectable choice in the RLA Software version of the ballot, the audit board should select **Blank vote – no mark**.

## Step 11-D: Reviewing Voter Markings

1. After entering the voter markings for every contest on the ballot, click the **Review** button at the bottom of the page.

No audit board		
consensus	Blank vote - no mark	
Add comment		
Add comment		
Add comment		

- 2. On the review screen, the audit board should confirm that the information displayed accurately reflects its interpretation for each contest and choice from the corresponding paper ballot.
- 3. If there are any discrepancies, the audit board should click the **Edit** button next to the contest that has a discrepancy, and reenter the voter markings for the contest. If the review page accurately reflects the audit board's interpretation of all votes in all contests, the audit board should click the **Submit & Next Ballot Card** button at the bottom of the page.

Regent of the University	of Colorado - At Large
Clear Winner	Z Edit
Adams COUNTY COMM	ISSIONER DISTRICT 5

4. Repeat Steps 11-C and 11-D for every ballot listed on your county's ballot list.

## Step 11-E: Re-audit

- Once the audit board replicates and submits the voter markings from all ballots, the audit board is given the opportunity to re-audit individual ballots they think they may not have inputted the correct markings. If the audit board wishes to reaudit the ballot they will have to give a reason why they are choosing to re-audit the ballot and then are presented with the races from that particular ballot again. When the audit board decides to re-audit a ballot, all markings from the previous times the ballot was presented will be deleted before the ballot is presented again.
- 2. For each ballot the audit board wishes to re-audit, the audit board should find the ballot from the list that is presented (sorted first by storage bin, then scanner, batch, and finally ballot position), then click the **Re-audit** button.
- The audit board should then retrieve the paper ballot to re-audit and faithfully replicate the markings that the voter made on their ballot. (Go back to Step 11-C). Once the audit board has completed that ballot they will be returned to the reaudit screen.

This screen all with blank data audited ballot,	lows you to re-audit ba a entry and review scr the most recent data	allots previous eens for that b will replace old	ly audited i ballot - data der entries.	in this round. If you ch from the previous au You will be able to re	oose to re-audit a dit will not be pre -audit multiple ba	a ballot, you will be presented filled. Once you submit a re- illots if you wish.
If you are sati	isfied with your initia	al data entry a	and wish to	o complete the round	d:	
Click th	e button below labe	led "Review (	Complete -	Finish Round"		
lf you wish to	re-audit a ballot:					
Click th	e "re-audit" button r	next to the ap	propriate	ballot card in the list	below	
Review Com	plete - Finish Round Storage bin	Scanner	Batch	Ballot position	Ballot type	Actions
Review Com	plete - Finish Round Storage bin Bin 1	Scanner 3	<b>Batch</b> 800	<b>Ballot position</b> 9	Ballot type	Actions Re-audit
Review Com	Storage bin Bin 1 Bin 1	Scanner 3 3	<b>Batch</b> 800 800	Ballot position 9 19	<b>Ballot type</b> 55 60	Actions Re-audit Re-audit
Review Com	plete - Finish Round Storage bin Bin 1 Bin 1 Bin 17 Bin 17	Scanner 3 3 5	<b>Batch</b> 800 800 1600	Ballot position 9 19 13	<b>Ballot type</b> 55 60 45	Actions Re-audit Re-audit Re-audit
Review Com	plete - Finish Round Storage bin Bin 1 Bin 1 Bin 17 Bin 17 Bin 17	<b>Scanner</b> 3 3 5 9	Batch           800           800           1600           3200	Ballot position 9 19 13 31	<b>Ballot type</b> 55 60 45 9	Actions Re-audit Re-audit Re-audit Re-audit
Review Com	plete - Finish Round Storage bin Bin 1 Bin 1 Bin 17 Bin 17 Bin 17	Scanner           3           3           5           9           9	Batch           800           800           3200           3200	Ballot position           9           19           13           31           41	Ballot type           55           60           45           9           19	Actions Re-audit Re-audit Re-audit Re-audit
Review Com	plete - Finish Round Bin 1 Bin 1 Bin 17 Bin 17 Bin 17 Bin 17 Bin 17	<b>Scanner</b> 3 3 5 9 9 9 9	Batch           800           800           3200           3200	Ballot position           9           19           13           31           41           47	Ballot type           55           60           45           9           19           24	Actions Re-audit Re-audit Re-audit Re-audit Re-audit

4. When the audit board is confident that all choices are correct, they should click the **Review Complete – Finish Round** button.

## Step 11-F: Concluding the Audit Round

1. When the audit board as completed any re-audits they wish to undertake, the RLA Software displays the **End of Round** page. The audit board members must "sign off" by entering their first and last names, then click the **Submit** button.

≡ Colorado RLA	A Home E→
End of Round 1	
Congratulations! You have comple limiting audit of the Alamosa Coun round, updated audit status will be	ed reporting the votes on all ballots randomly selected for this round of the risk- y 5/10/2018 Coordinated Election . After the judges have signed off on the lisplayed on the next page.
Please complete this audit round b selecting Submit. By entering his of certifies that he or she: • Personally located and retrieved, or personally observed a or Enterther the woler markings contained in each ball • Where applicable, resolved ambiguous markings, over votes • In the case of physically duplicated ballots, if any, the Audit <b>Audit Board Member #1</b> First Name Ronald ast Name Reagan <b>Audit Board Member #2</b> First Name Barak Last Name Obama	rentering your names in the fields below, making the following certification, and her name and selecting Submit below, each Audit Board member individually units staff member locate and retrieve, each paper ballot randomly selected for Audit Round 1 of the Alamosa County 5/10/2018 Coordinated t contest on each such randomly selected ballot, to the best of his or her ability: Individual and write-in votes in accordance with the current version of the Secretary of States Voter Intent Guide; ard's report reflects the voter markings on the paper ballot originally submitted by the voter.

Once all of the county's audit boards are complete the round is over for the county. However, **counties will not know the outcome of the audit until every county has completed their audit because of the statewide audit**. Wait to hear from the voting systems team at the Secretary of State's office for notification that the round is over. The notification will indicate whether the state as a whole requires another round or not and instructions on how to proceed. To check if your county contest's risk-limit was satisfied, you must log back into the RLA software (see Chapter 9, Step 9-B). If both the state and county contests both had their risk-limit's met the final audit report will be available to download.

#### Hello, Adams County!

You have successfully completed the Risk-Limiting Audit! Print all pages of your final audit report. Have the judges and county clerk sign the last page of the report and email it to RLA@sos.state.co.us. You can now proceed to canvass!
Ballot Manifest
File name: "adams-manifest.csv" SHA-266 hash: 87ED7F1732CB4CA89162A73504D7F682F0C5AB8A5B175C8B0AF3C232E772A4AE Download
CVR Export
File name: "adams-curexpoticsy" SHA-256 hash: E718F230547843DCD91DF413D06493C0D2C6511BEAD69DCE5E6FB7FF02A43EDB Download
Einal audit report (CSV) Download
List of ballots to audit (CSV) Download

After printing the audit report, the clerk should sign and date it. Submit the signed and dated audit report to the Secretary of State by email at <u>rla@sos.state.co.us</u>.

If either the state or county risk limit was not met, a message will be displayed instructing the county to wait for the state to start the next round. Wait for notification from the state that the next round is now ready to proceed.

≡ Colorado RLA	☆ Home →
End of Round 1	
The current round Round 1 is complete Please wait for the Department of State to begin the next round	

For any subsequent rounds, please repeat the steps from Chapters 10 and 11.

## APPENDIX I: OBTAINING BALLOT IMAGES FROM DEMOCRACY SUITE

The steps below contain directions for how to obtain ballot images general. As an alternative, for obtaining single ballot images, you could navigate to the folder of the associated project on the NAS, open the Results folder, and then tabulator folder, batch ID folder, and finally locate the record (position) PDF. This can be done for each individual ballot.

#### **General Directions**

- 1. Log into the project in RTR. For help with this see the RTR user guide.
- 2. From the top menu, select Actions.



3. Select Export. Then select Export Audit Images.



4. Select your filter criteria and then select Add.



5. Select additional filter criteria (e.g. specific contest, exception, precinct, ballot type, etc.) then click **Export**. NOTE: If you leave 'All' selected and do not select a specific item from the list, the export will include all images, sorted by that particular filter criteria (in Step 4).

Export Addit images			
d filter criteria			
Contest	Vuse external id	Add	
ers		_	
First Sort Images by Contest			
Governor		~	

6. A confirmation message will display. Click Yes.



7. A progress bar will display as the images are being exported. When the process is complete, a confirmation message will display. Click **Close** to close the message.



8. The exports will be saved to the project's folder on the NAS.

	^	Name	^	Date modified	Type	Size	
				Date mounted	ijpe	Size	
*		AuditImag	es	7/30/2020 7:41 AM	File folder		
		Tabulator0	0001	10/30/2019 7:37 AM	File folder	1	
		Tabulator0	0002	10/30/2019 7:35 AM	File folder	10	
*		Tabulator0	0009	10/30/2019 7:34 AM	File folder		
*		CVR_Expor	t_20191101080054.csv	11/1/2019 8:01 AM	CSV File	725 KB	
*		CVR_Expor	t_20191101081203.csv	11/1/2019 8:12 AM	CSV File	725 KB	
		CVR_Expor	t_20191101082437.csv	11/1/2019 8:24 AM	CSV File	725 KB	
		CVR_Expor	t_20191104134701.csv	11/4/2019 1:47 PM	CSV File	725 KB	
		CVR_Export	t_20200421145652.zip	4/21/2020 2:56 PM	Compressed (zipp	199 KB	