

CORLA

draft

User Manual

This User Manual provides an overview of the components that comprise the Colorado Department of State's (CDOS) Risk Limiting Audit Tool (RLA Tool). It contains annotated screenshots with detailed descriptions of what is contained on every page users will experience. It also contains a glossary of relevant terms. This RLA Tool represents the cutting edge in efforts to provide verifiable evidence that election results are accurate, and November 2017 is the first time any state or jurisdiction has implemented them on a widescale basis.

Basic Structure of Risk Limiting Audits

Once the Secretary of State establishes a risk limit and selects contests to be audited, counties will then use the RLA Tool to upload ballot manifests, cast vote records (CVRs), and summary results to a central server. The RLA Tool will use this data to determine the initial set of ballots to be checked for each contest based on the risk limit and the margins of victory in the contests to be audited. The RLA Tool will report this information to each county, where the Audit Board, consisting of representatives of different political parties, will retrieve the appropriate ballots and record their interpretations of voter intent in the RLA Tool. If there are too many mismatches between the Audit Board's interpretations and the choices reported by the vote-tallying system, additional ballots may need to be randomly selected until either the risk limit is satisfied or a complete hand count is conducted. Complete audit results are exported from the RLA Tool for import to a Public Audit Center hosted on the official CDOS website.

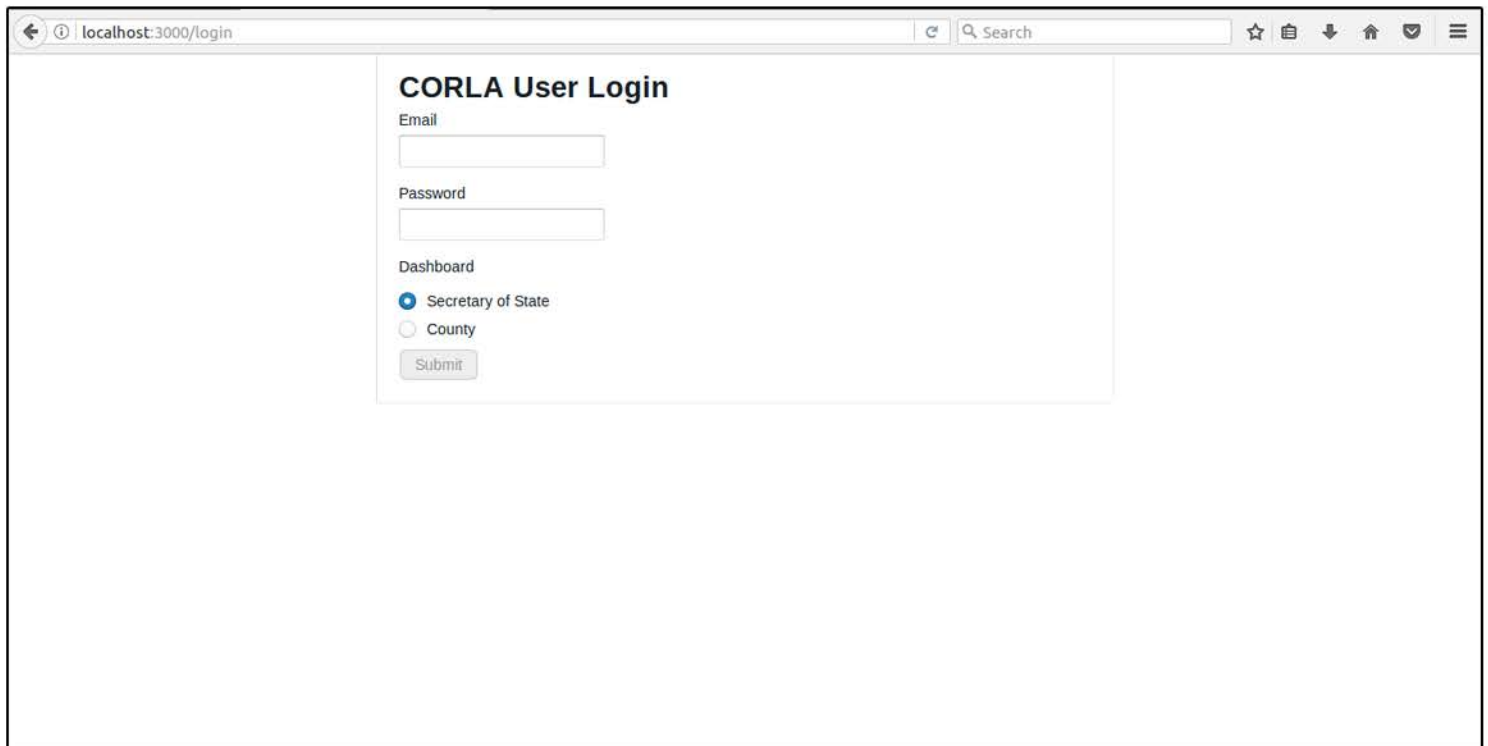
RLA Tool

The RLA Tool facilitates running a risk limiting audit across all counties in Colorado simultaneously. The RLA Tool has two dashboards. One dashboard serves CDOS, and the other serves the Counties. Both the CDOS and County dashboards require authentication to login. The RLA Tool also provides information to be used for a Public Audit Center, but does not contain it.

CDOS Dashboard

Login Page

On this page authorized users can enter their login credentials to access the RLA Tool's CDOS Dashboard.



The screenshot shows a web browser window with the address bar displaying 'localhost:3000/login'. The page title is 'CORLA User Login'. The login form includes the following elements:

- Email:** A text input field.
- Password:** A text input field.
- Dashboard:** Two radio button options: 'Secretary of State' (selected) and 'County'.
- Submit:** A button to submit the login credentials.

Risk Limits Set Page

This page allows Secretary of State enter the Risk Limit for a Comparison and Ballot Polling audits.

Colorado RLA

Home

SoS > Audit Admin

Administer an Audit

Audit Definition

Enter the date the election will take place, and the type of election.

Election date.

Election Type

☐ Coordinated Election

☐ Primary Election

Risk Limits

Each contest type has a default risk limit set. To change the risk limit for a class, change the percentage shown. To change the risk limit for a particular contest use the link below to add an exception from the default.

Ballot Polling Audits

Comparison Audits

Once the election has started, this information will not be able to be changed.

Save

Contests to Audit Identified Page

This page allows the Secretary of State to select which statewide contest, and which countywide contests to audit. This information will be published to the County Dashboard when the selections have been made. This page also allows the Secretary of State to select contest for full hand counts.

localhost:3000/sos/audit/select-contests

Colorado RLA

Home

SoS > Audit Admin > Select Contests

Contest ID	Contest Name	Full hand count	Audit?	Reason
22	State Representative - District 56	<input type="checkbox"/>	<input type="checkbox"/>	
63	Proposition 108 (Statutory)	<input type="checkbox"/>	<input type="checkbox"/>	
21	State Representative - District 42	<input type="checkbox"/>	<input type="checkbox"/>	
15	State Representative - District 9	<input type="checkbox"/>	<input type="checkbox"/>	
68	BALLOT QUESTION 301	<input type="checkbox"/>	<input type="checkbox"/>	
41	Colorado Court of Appeals Judge - Dunn	<input type="checkbox"/>	<input type="checkbox"/>	
81	BALLOT ISSUE 5D	<input type="checkbox"/>	<input type="checkbox"/>	
42	Colorado Court of Appeals Judge - Furman	<input type="checkbox"/>	<input type="checkbox"/>	
14	State Representative - District 3	<input type="checkbox"/>	<input type="checkbox"/>	
16	State Representative - District 36	<input type="checkbox"/>	<input type="checkbox"/>	
66	BALLOT ISSUE 2C	<input type="checkbox"/>	<input type="checkbox"/>	
62	Proposition 107 (Statutory)	<input type="checkbox"/>	<input type="checkbox"/>	
5	State Board of Education Member - Congressional District 6	<input type="checkbox"/>	<input type="checkbox"/>	
43	Colorado Court of Appeals Judge - Hawthorne	<input type="checkbox"/>	<input type="checkbox"/>	
31	COUNTY COMMISSIONER DISTRICT 3	<input type="checkbox"/>	<input type="checkbox"/>	
4	Representative to the 115th United States Congress - District 6	<input type="checkbox"/>	<input type="checkbox"/>	
50	District Court Judge - 18th Judicial District - Martinez	<input type="checkbox"/>	<input type="checkbox"/>	
0	Presidential Electors	<input type="checkbox"/>	<input type="checkbox"/>	
39	Colorado Court of Appeals Judge - Berger	<input type="checkbox"/>	<input type="checkbox"/>	
9	State Senator - District 26	<input type="checkbox"/>	<input type="checkbox"/>	
25	Regional Transportation District Director - District D	<input type="checkbox"/>	<input type="checkbox"/>	
6	Regent of the University of Colorado - At Large	<input type="checkbox"/>	<input type="checkbox"/>	
57	Amendment 69 (Constitutional)	<input type="checkbox"/>	<input type="checkbox"/>	
27	Regional Transportation District Director - District F	<input type="checkbox"/>	<input type="checkbox"/>	
70	BALLOT ISSUE 3A	<input type="checkbox"/>	<input type="checkbox"/>	
34	Councilmember District 1	<input type="checkbox"/>	<input type="checkbox"/>	
13	State Senator - District 31	<input type="checkbox"/>	<input type="checkbox"/>	
11	State Senator - District 28	<input type="checkbox"/>	<input type="checkbox"/>	
32	COUNTY COMMISSIONER DISTRICT 5	<input type="checkbox"/>	<input type="checkbox"/>	
36	Councilmember District 5	<input type="checkbox"/>	<input type="checkbox"/>	

[Back](#) [Save & Next](#)

Random Seed Entry Page

This page allows the Secretary of State to enter the random seed, which is a 20 digit number chosen during a public ceremony. Once entered, this will trigger the random selection of which ballots to audit, which will be listed on the following page, and will be published to the County and Public Dashboards.

Colorado RLA

Home

SoS > Audit Admin > Seed

Audit Definition - Enter Random Seed

Enter the random seed generated from the public meeting on 11/10/2017.

Audit Random Seed

Please enter the seed generated from the public meeting.

Seed

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Audit Ongoing Page

This page provides an overview of the audit in progress, updated in real time. It shows County level and Contest level details, and will indicate when: 1) the audit is complete, 2) another round of ballots must be counted, and 3) if a Full Hand Count is required.

localhost:3000/sos

Colorado RLA

Home

No notifications.

County Updates

ID	Name	Started	Submitted	Progress
1	Adams			
2	Alamosa			
3	Arapahoe			
4	Archuleta			
5	Baca			
6	Bent			
7	Boulder			
8	Chaffee			
9	Cheyenne			
10	Clear Creek			
64	Broomfield			

Contest Updates

ID	Name	Status	Target Risk Limit	Risk Level
22	State Representative - District 56			
63	Proposition 108 (Statutory)			
21	State Representative - District 42			
15	State Representative - District 9			
68	BALLOT QUESTION 301			
41	Colorado Court of Appeals Judge - Dunn			
81	BALLOT ISSUE 5D			
42	Colorado Court of Appeals Judge - Furman			
14	State Representative - District 3			
16	State Representative - District 36			
39	Colorado Court of Appeals Judge - Berger			
9	State Senator - District 26			
25	Regional Transportation District Director - District D			
6	Regent of the University of Colorado - At Large			
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34	Councilmember District 1			
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32	COUNTY COMMISSIONER DISTRICT 5			
36	Councilmember District 5			

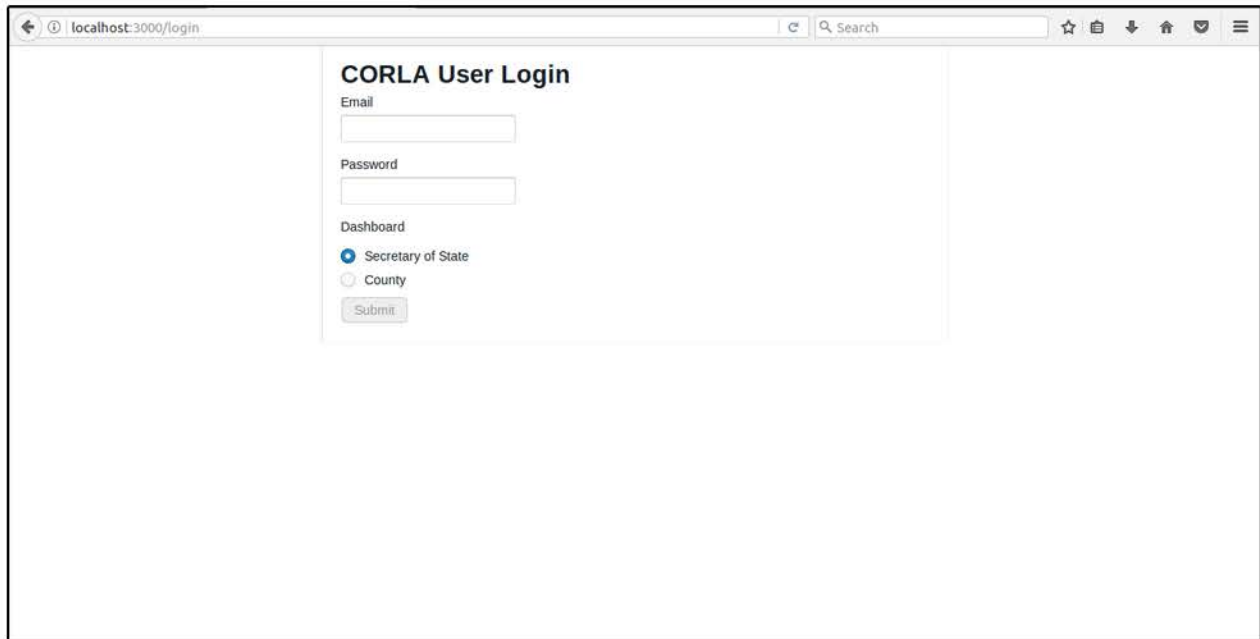
Seed: deadbeefdeadbeefdeadbeefdeadbeefdeadbeefdeadbeefdeadbeefdeadbeefdeadbeef

Final Audit Report

County Dashboard

Login Page

On this page authorized users can enter their login credentials to access the RLA Tool's County Dashboard.



The screenshot shows a web browser window with the address bar displaying "localhost:3000/login". The page title is "CORLA User Login". The login form includes the following elements:

- Email:** A text input field.
- Password:** A password input field.
- Dashboard:** A section with two radio button options:
 - ☒ Secretary of State
 - ☐ County
- Submit:** A button to submit the login credentials.

County Home Page

On this page county officials can upload their hashed Ballot Manifest and CVR files.

Colorado RLA

Home

Hello, Acme County!

Please upload your Ballot Manifest and Cast Vote Records.

Ballot Manifest:

No file uploaded.

Browse

Cast Vote Records:

No file uploaded.

Browse

Start Audit

County Info

Election Date: 11/07/2017
Audit Date: 11/18/2017

Contest info

Regent of the University of Colorado - At Large

ID	Name
1	Harley Acosta
2	Tessa McKinney
3	Regina Robles

Proposition 107 (Statutory)

ID	Name
4	Yes
5	No

COUNTY COMMISSIONER - At Large

ID	Name
7	Maya McLaughlin
8	Rachelle Kramer
9	Nina Jimenez
10	Felicia Reid
11	Julian Jenkins

Audit Board Sign-In

On this page Audit Board members can sign into the system to conduct the audit.

Colorado RLA

Home

Audit Board Sign-in

Enter the full names and party affiliations of each member of the Acme County Audit Board who will be conducting this audit today:

Audit Board Member

Full Name:John Smith

Party Affiliation

☒ Democratic Party

☐ Republican Party

☐ Other Party

☐ Unaffiliated

Audit Board Member

Full Name:Jane Doe

Party Affiliation

☐ Democratic Party

☒ Republican Party

☐ Other Party

☐ Unaffiliated

Next

Audit Board Interpretation Entry

This page allows Audit Board members to enter their collective interpretation of choices marked on the ballot. Then Audit Board members click ‘Review’ to review their choices, and then ‘Submit and Next Ballot’ when ready to proceed to the next ballot. This process continues until all of the ballots for the batch are entered.

Colorado RLA

Home

Ballot verification

Use this page to report the voter markings on the ballot with ID #44, out of 7 ballots that you must audit.
The current ballot is:

- 44
- Style C

Please ensure that the paper ballot you are examining is the same ballot style/ID.

Record here the **voter intent** as described by the Voter Intent Guide from the Secretary of State. All markings **do not** need to be recorded. Replicate on this page all **valid votes** in each ballot contest contained on this paper ballot. Or, in case of an **overvote**, record all final voter choices that contribute to the overvote. Please include notes in the comments field.

Regent of the University of Colorado - At Large
A contest with 3 choices, where 1 may be selected.
Vote for 1 out of 3

☐ Harley Acosta

☐ Tessa McKinney

☐ Regina Robles

☐ No consensus

Comments:
[Click to Edit](#)

COUNTY COMMISSIONER - At Large
A contest with 5 choices, where 3 may be selected.
Vote for 3 out of 5

☐ Maya McLaughlin

☐ Rachelle Kramer

☐ Nina Jimenez

☐ Felicia Reid

☐ Julian Jenkins

☐ No consensus

Comments:
[Click to Edit](#)

Back

Review

Audit Board Interpretation Review

This page allows Audit Board members to review their choices, and then 'Submit and Next Ballot' when ready to proceed to the next ballot. This process continues until all of the ballots for the batch are entered.

Colorado RLA

Home

Regent of the University of Colorado - At Large
A contest with 3 choices, where 1 may be selected.
Vote for 1

Votes for:

Blank Vote

Comments:

COUNTY COMMISSIONER - At Large
A contest with 5 choices, where 3 may be selected.
Vote for 3

Votes for:

Blank Vote

Comments:

COUNTY COMMISSIONER - At Large
A contest with 5 choices, where 3 may be selected.
Vote for 3

Votes for:

Blank Vote

Comments:

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Submit & Next Ballot