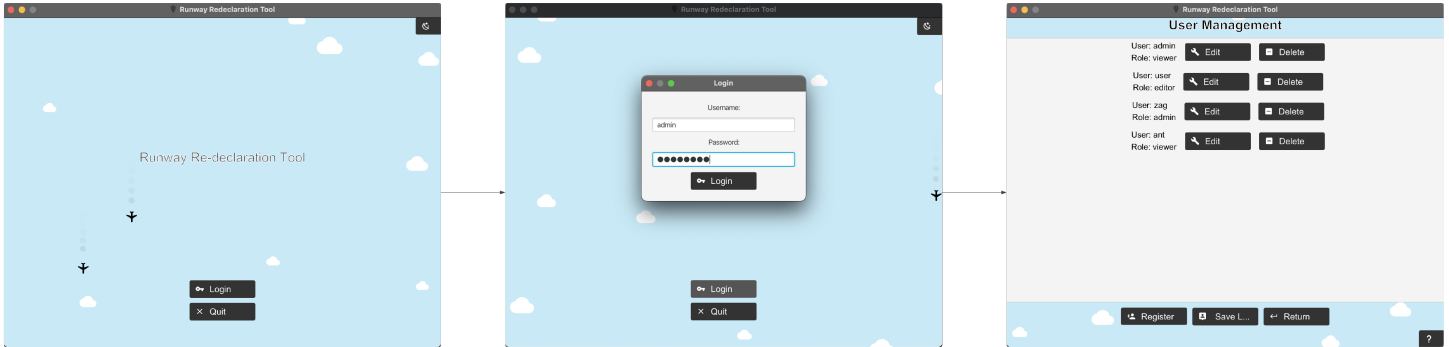


# 1 User Guide

## Login System

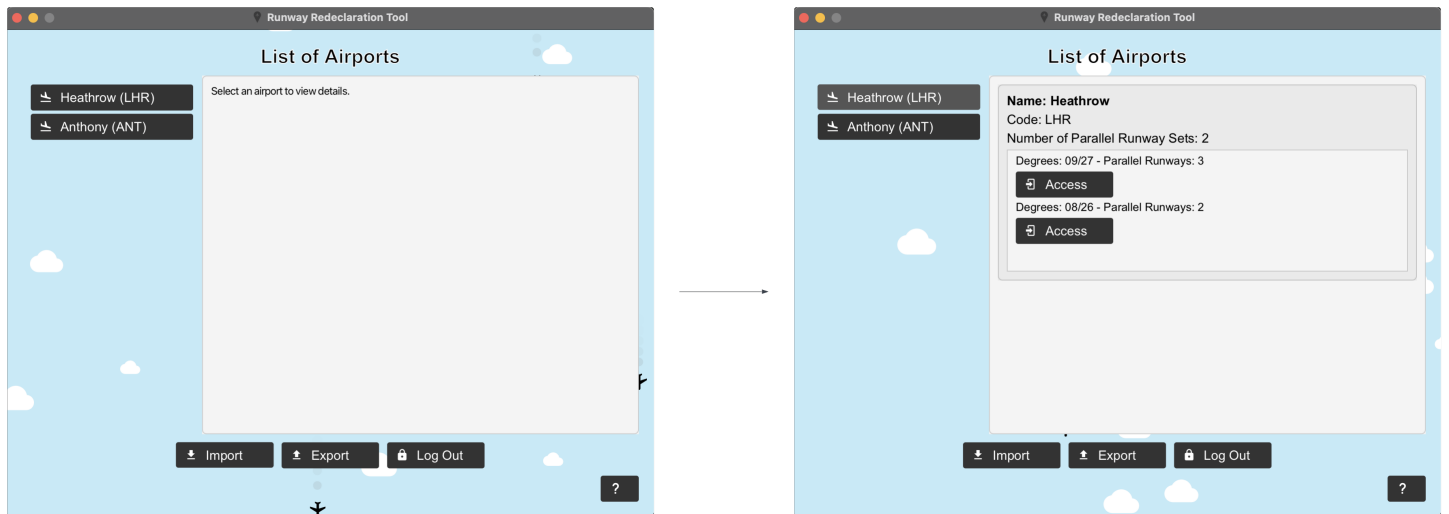
You will be initially displayed a menu screen with a "Login" button when, upon clicking, requests a username and password that is registered in the system. Each account has to be assigned the following three roles:

- **Admin (A):** Has access to all functions and can manage registered accounts.
- **Editor (E):** Only has access to modifying existing airports, runways and obstacle placement.
- **Viewer (V):** Only able to view the airports and runways.



## Airport List

After authenticating, you are presented with the list of registered airports on the left.



When you click an airport, it's information will be displayed on the right of the screen, which includes the airport name and code. However the runway details are organised such that:

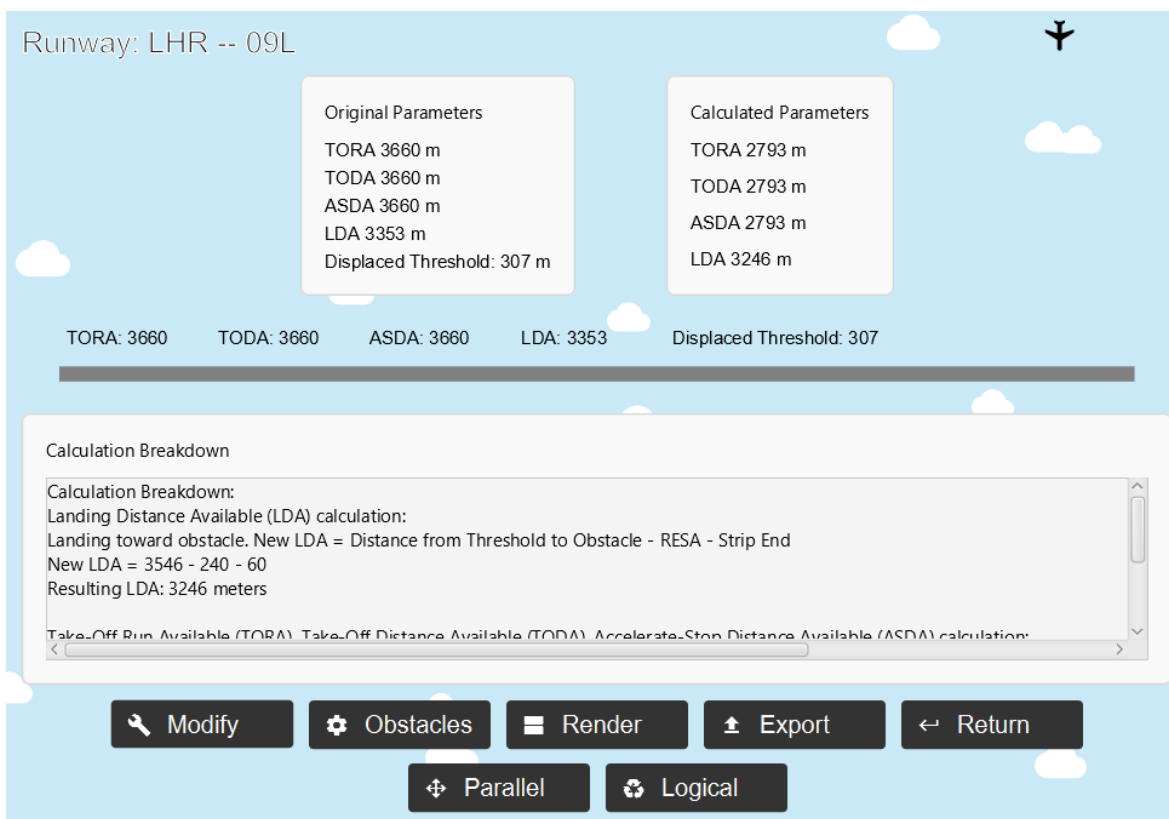
- They're put into sets of parallel runways.
- The maximum number in a set is capped at 3.
- The "Access" button under a runway set will lead to it's configuration in another page. (A/E/V)
- The "Delete" button under a runway set will remove it from the airport's runway list. (A)
- The "Add" button in the info box prompts the runways details to be added. (A)

There is a button set at the bottom of the page where some of them are only accessible to certain roles:

- **Add:** Requires an airport name and code for it to be added. (A)
- **Delete:** Deletes the selected airport from the airport list. (A)
- **Modify:** Allows to edit the selected airport's name and code. (A/E)
- **Import:** Allows you to import your own xml data file to be put onto the system.
- **Export:** Allows you to export the systems xml data file on your local device.
- **Help:** There is a digital user manual on the moon button on the bottom right.
- **Users:** You can add/delete users or edit a user's role. (A)

### Runway Configuration

When you select a parallel runway set, you are displayed the original and calculated distances after placed an obstacle. The calculation breakdown will be displayed below the parameters.

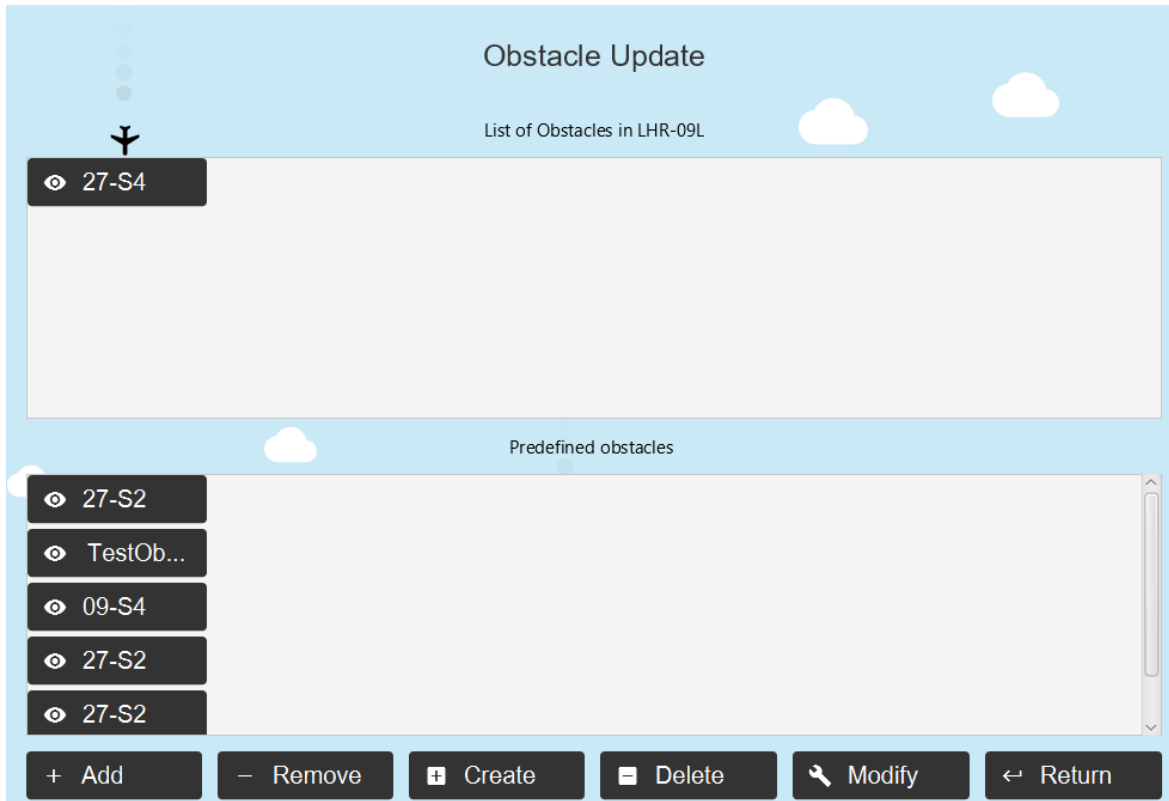


The buttons do:

- **Modify:** Can edit runway parameters for both sides. (A/E)
- **Obstacles:** Goes to another page to add/configure/remove obstacles. (A/E)
- **Render:** You can access the 2D Top-down and 2D side view of the current runway.
- **Parallel:** Switches to the next parallel runway's configuration. (i.e. 09R to 09L)
- **Logical:** Switches to the opposite runway's configuration. (i.e. 09R to 27R)

## Obstacle Placement

when you click on the "Obstacles" button on the runway configuration scene you're shown the top section for placed obstacles and the bottom section of a list of predefined obstacles imported via xml files.



When you select an obstacle you can:

- **Add:** Places an obstacle on the runway. Replaces if there is already an existing obstacle.
- **Remove:** Removes the obstacle from the runway.
- **Create:** Creates a new obstacle, where displacement from threshold is the side of the runway you're currently configuring.
- **Delete:** Deletes the obstacle.
- **Modify:** Edits the obstacle's parameters.

Before returning to the configuration scene after adding an obstacle, a pop up window will request the Blast Protection Value of the aircraft. After you will get the calculated parameters and breakdown.

## Render Options

You can view a 2D top-down or 2D side view or both at the same time. Both views will show colour coded distances from the perspective side of the runway along with any obstacles marked in *orange*.

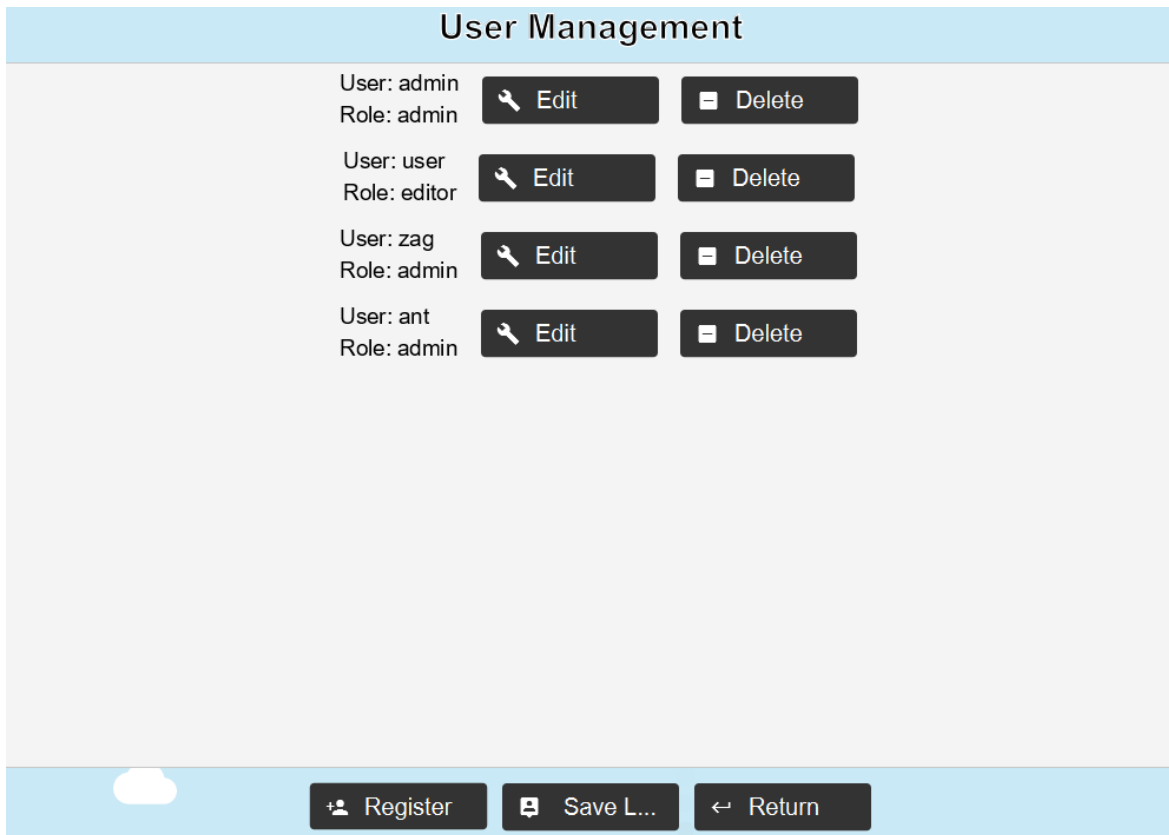


The views also contain simulation options to show:

- **L Over:** A plane landing over an obstacle. (*2D side view*)
- **L Toward:** A plane landing towards an obstacle. (*2D side view*)
- **T Toward:** Plane taking off towards an obstacle. (*2D side view*)
- **T Away:** A plane taking off away from an obstacle. (*2D side view*)
- **Rotate:** Rotate a runway to match it's directional orientation. (*2D top-down*)
- **Grade:** View a runway including it's graded area. (*2D top-down*)

### Users Management

As an admin role on the tool, you can access a "Users" button that leads to user management page:



- **Register:** you can register a user and assign the appropriate usernames, passwords and role.
- **Edit:** you can ONLY change their role by ticking off the checkbox next to the role.
- **Delete:** you can delete any user from the system when necessary (i.e when they resign from their job)
- **Save Logs:** you can download a text file from the tool that is a list of logs that have occurred whilst the system is open.