

EvalLogo: an overview

This document provides a brief overview of the features available to *evalLogo*. This is a single page application that evaluates a subset of the drawing commands found in the Logo programming language.

This overview assumes that the grunt http server is up and running listening on port 1234. The steps to achieve this can be found in README.md (located under the repository's root directory).

Command Evaluation

The logo evaluator can be accessed through the url <http://localhost:1234/evalLogo/logo>. The page shown in illustration 1 should be displayed. The list of available commands (maintained through the back office page, discussed in the next section) is shown on the left hand side. The text area that allows a user to input the commands is found at the bottom.

The commands area evaluated by pressing any of these button located at the bottom left corner:

- run: evaluates and draws the image from the inputted commands. The previously placed drawing is not cleared.
- Clear and run: the previous drawing is cleared and the turtle is placed again at the centre before starting the current command evaluation.

The three other button offer the following functionality:

- Clear drawing only: clears the current drawing but not the command text area.
- Clear command only: clears the commands text area but not the current drawing.
- Clear all: clears both the commands text area and the current drawing.

As depicted in illustration 2, the application will display the description of the command hovered upon. Furthermore, the command text area will be appended with the clicked command. Illustration 3 shows a diagram drawn after a series of commands were evaluated. An alert message between the drawing and command text area alerts the user whether the commands were executed or if the evaluation failed due to an error.

Logo Simulator

The screenshot shows the EvalLogo Logo Simulator interface. On the left, a 'commands' panel lists: `fd(steps)`, `lt(angle in degrees)`, `repeat[n.statement1; statement2;...];`, and `commandX`. A blue arrow points from the `repeat` command to a large grey canvas area, with the annotation: 'The description of the command hovered upon is displayed'. Below the canvas, a blue arrow points from the same area to a text area containing the text: 'repeats statement1, statement2,...statementx for n times.'. Another blue arrow points from the text area to the bottom of the text area, with the annotation: 'The clicked command is added at the end of the textarea's content.'. The text area currently contains the command: `repeat[n.statement1; statement2;...];`. On the right, a vertical stack of buttons includes: 'run', 'clear and run', 'clear drawing only', 'clear commands only' (highlighted), and 'clear all'.

Illustration 1: clicking and hovering over the available commands

Logo Simulator

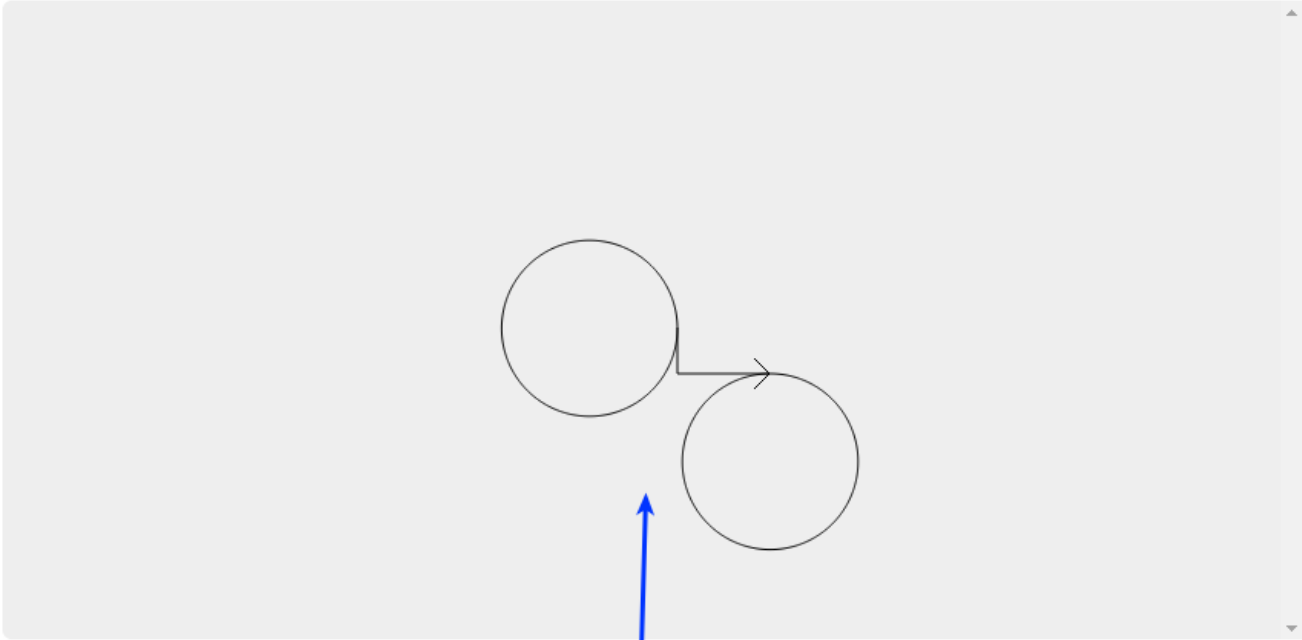
commands

fd(steps)

lt(angle in degrees)

repeat[n,statement1; statement2;...];

commandX



drawing shown when the 'run' button is pressed.

lt (left) turns the turtle anti-clockwise by the given number of degrees.

commands evaluated successfully!

```
lt(180);
repeat[360,fd(1); rt(1);];
fd(30)
lt(90)
fd(60);
repeat[360,fd(1); rt(1);];
```

inputted commands (separated by newline or semi-colon)

run

clear and run

clear drawing only

clear commands only

clear all

Illustration 2: command evaluation

Logo Simulator

The screenshot shows the EvalLogo Logo Simulator interface. On the left, a 'commands' panel lists: `fd(steps)`, `lt(angle in degrees)`, `repeat[n,statement1; statement2;...];`, and `commandX`. A blue arrow points from the text 'available commands to try' to the `repeat` command. Below this is a large white text area for entering commands, with a blue arrow pointing to it from the text 'area for entering commands'. To the right is a large gray canvas for drawing, with a small black caret symbol (^) representing the turtle. A blue arrow points from the text 'the \'turtle\' symbol' to the caret. Below the canvas is a blue button panel with five options: 'run', 'clear and run', 'clear drawing only', 'clear commands only', and 'clear all'. A blue arrow points from the text 'the commands that trigger the evaluation (with different options)' to the 'run' button. Another blue arrow points from the text 'the area where the evaluated drawn is shown.' to the gray canvas.

commands

- `fd(steps)`
- `lt(angle in degrees)`
- `repeat[n,statement1; statement2;...];`
- `commandX`

available commands to try

area for entering commands

the 'turtle' symbol

the area where the evaluated drawn is shown.

the commands that trigger the evaluation (with different options)

- run
- clear and run
- clear drawing only
- clear commands only
- clear all

Illustration 3: EvalLogo upon loading

Command Administration:

An administrator can access EvalLogo's backoffice section through <http://localhost:1234/evalLogo>. A login page is prompted as shown in illustration 4. One can currently access this page using users george or admin1 with their respective passwords being gbon0001 and passadmin1. Please see README.md for further details on how the password is stored.

Logo Simulator Login Page

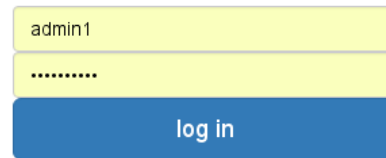
The image shows a login form titled "Logo Simulator Login Page". It consists of two yellow input fields stacked vertically. The first field contains the text "admin1". The second field contains a series of dots, indicating a password. Below these fields is a blue button with the text "log in" in white.

Illustration 4: Backoffice login prompt

The backoffice page allows an administrator to add or remove commands as well as modifying the description of the individual commands. As mentioned previously any changes or additions to the command is reflected in the command evaluation page.

Logo Commands

Welcome admin1

[Logout](#)

List of Commands

command	description	remove
fd(steps)	fd (forward) moves the 'turtle' pointer a number of steps ahead.	<input type="button" value="x"/>
lt(angle in degrees)	lt (left) turns the turtle anti-clockwise by the given number of degrees.	<input type="button" value="x"/>
repeat[n,statement1; statement2;...];	repeats statement1 , statement2,....statementx for n times.	<input type="button" value="x"/>
commandX	this command will be available in logo evaluator's next release :)	<input type="button" value="x"/>

[New Command](#)

Illustration 5: Command Administration functions: addition, modification and removal