

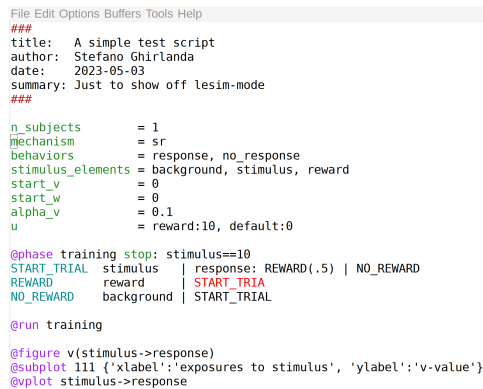
Lesim-Mode: Edit Learning Simulator Scripts in Emacs

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Lesim-Mode is an Emacs major mode to write and run Learning Simulator scripts. To learn more about the Learning Simulator, see this short article and the online documentation.

Lesim-Mode does not understand the full Learning Simulator syntax. That is a job for Superman, that is, Learning Simulator chief software architect Markus Jonsson.



```
File Edit Options Buffers Tools Help
###
title: A simple test script
author: Stefano Ghirlanda
date: 2023-05-03
summary: Just to show off lesim-mode
###
n_subjects      = 1
mechanism       = sr
behaviors       = response, no_response
stimulus_elements = background, stimulus, reward
start_v         = 0
start_w         = 0
alpha_v         = 0.1
u               = reward:10, default:0

@phase training stop: stimulus==10
START_TRIAL stimulus | response: REWARD(.5) | NO_REWARD
REWARD reward | START_TRIAL
NO_REWARD background | START_TRIAL

@run training

@figure v(stimulus->response)
@subplot 111 {'xlabel':'exposures to stimulus', 'ylabel':'v-value'}
@vplot stimulus->response
```

Figure 1: Sample screenshot

1 Installing

Install from here for now, hopefully from MELPA later.

2 Using

- Syntax coloring is enabled automatically. It also highlights some errors, line unassigned parameters.
- `C-c C-c` runs the script in the Learning Simulator (see 3), highlighting any errors.
- `C-c C-v` in a phase block aligns the block and highlights misspelled stimuli, behaviors, and phase line names.
- `C-c C-v` in a parameter block aligns the block.
- `TAB` and `Shift-TAB` in a phase block move between fields. Elsewhere, they move by word.
- `C-c C-t` inserts a template script (see 3).

3 Configuration

Using `M-x customize-group lesim` you can configure:

- The command used to run the Learning Simulator (default: `lesim.py`).
- The key binding to run scripts.
- The key binding to align and validate code.
- The key binding to insert a template script.
- Whether to insert a template script automatically upon opening an empty `.les` file (default: `nil`).

4 Planned features

- Look up parameter definitions and default values in `lesim.py` source online.
- Parse assignments to highlight syntax and content errors.
- Highlight and validate plotting commands.
- Add Lesim menu.

Please suggests features as issues on Github.

5 Bugs

- The content of multiline comment blocks is highlighted as regular script text.

Please report bugs as issues on Github.