

Principles of Programming Languages

Using Racket and DrRacket

Overview

For the middle portion of the course, we will be using the Racket language (instead of the ML language) and the DrRacket programming system. This document describes basic installation and usage steps sufficient for doing your homework.

The main website for Racket-related things is <http://racket-lang.org>. See in particular The Racket Guide at <http://docs.racket-lang.org/guide/index.html>

Installation

All you need is the DrRacket system. You can download DrRacket from <http://racket-lang.org/download> and follow the installation instructions.

First Time Set-Up

First Time Set-Up The first time you use DrRacket, click on “Choose Language” in the lower left and then select “Use the language declared in the source.” DrRacket should remember this choice henceforth.

Using DrRacket

For the most part DrRacket is an easy-to-use system with lots of documentation. Here are a few specific notes related to how we will use it:

- Click “Run” to have the REPL process the definitions in your file.
- Clicking “Run” will “start the REPL over” — all previous work will disappear and only the definitions from the file you “Run” will be defined.
- If you want to save work in the REPL, do so before clicking “Run.” There is also an option under “File” for “Log Definitions and Interactions” but we have little experience with it.
- A useful shortcut in the REPL is to use Alt-P (any number of times) to bring back up recent interactions. Moreover, this works even to bring up interactions from before the most recent “Run.” That is, even though the interactions disappeared and are not part of the current environment, you can still use Alt-P to bring them back and then edit them or click Return to re-run them.
- When using a second testing file as described in the previous section, click “Run” in the window that has the testing file. This will send to the REPL your homework solution and your tests.
- If you cause an infinite loop, click “Stop.”
- You can (re-)indent a line with the TAB key. You can select multiple lines and hit TAB to reindent all selected lines.
- If you type `)`, DrRacket will replace it with `]` if doing so will match a `[`.