

OCaml Development

Yoann Padioleau
yoann.padioleau@gmail.com

December 29, 2009

Copyright © 2010 Facebook

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.3.

Short Contents

1	Introduction	4
2	Installing OCaml	5
3	Your First Program	6
4	Your First Project	7
5	Debugging	8
6	Emacs	9
7	Libraries	10
8	Pitfalls	11
9	Tricks	12
10	Documentation	13
11	Coding style	14

Contents

1	Introduction	4
1.1	OCaml vs Other Programming Languages	4
1.2	Toolset	4
2	Installing OCaml	5
2.1	From source	5
2.2	Godi	5
2.3	Pad Installation	5
3	Your First Program	6
3.1	foo.ml	6
3.2	Command line arguments	6
3.3	A Simple Makefile	6
4	Your First Project	7
4.1	Project Organization	7
4.2	Makefile Template	7
4.3	main.ml template	7
5	Debugging	8
5.1	Displaying complex values	8
5.2	Breaking points	8
5.3	Time traveling	8
6	Emacs	9
6.1	Tuareg mode	9
6.2	Type Inference Feedback under Emacs	9
6.3	Debugging Under Emacs	9
6.4	project.el Template	9
6.5	Addons	9
7	Libraries	10

8 Pitfalls	11
8.1 Ugly Stuff	11
8.2 Syntax Memento	11
9 Tricks	12
10 Documentation	13
10.1 OCaml Books	13
10.2 Functional programming	13
10.3 OCaml Cookbook	13
11 Coding style	14
11.1 Coding Conventions	14
11.2 Do's and Don't	14

Chapter 1

Introduction

¹

OCaml is a powerful language, trust me.

1.1 OCaml vs Other Programming Languages

1.2 Toolset

¹NOTE: convention: use we/you, but try to limit their use

Chapter 2

Installing OCaml

2.1 From source

2.2 Godi

2.3 Pad Installation

Chapter 3

Your First Program

3.1 `foo.ml`

3.2 Command line arguments

3.3 A Simple Makefile

Chapter 4

Your First Project

4.1 Project Organization

4.2 Makefile Template

4.3 main.ml template

Chapter 5

Debugging

Amazing debugger. Can go back in time.

5.1 Displaying complex values

5.2 Breaking points

5.3 Time traveling

Chapter 6

Emacs

6.1 Tuareg mode

6.2 Type Inference Feedback under Emacs

6.3 Debugging Under Emacs

6.4 `project.el` Template

6.5 Addons

Chapter 7

Libraries

Chapter 8

Pitfalls

8.1 Ugly Stuff

8.2 Syntax Memento

Chapter 9

Tricks

Chapter 10

Documentation

10.1 OCaml Books

10.2 Functional programming

10.3 OCaml Cookbook

Chapter 11

Coding style

11.1 Coding Conventions

11.2 Do's and Don't

Bibliography

- [1] George Necula, *CIL*, CC. <http://manju.cs.berkeley.edu/cil/>