

OCAML BEGINNER



This 3-day training provides a strong introduction to the use of the OCaml programming language, with a focus on the features that allow developers to get powerful and robust applications rapidly, thanks to OCaml strong type system. The training targets developers that already master another imperative language such as C, C++, Python, C# or Java, and covers both the language and the tooling to use it. During practical workshops, trainees can develop their first OCaml programs on their computers.

INFORMATION

Price: 2000 EUR/pers. excl. taxes

Duration: 3 days

Practice: 50%

Public

Developers



Pre-requisites

Algorithmic



Other language



Pedagogical Objectives

- Introduction to the OCaml training
- Introduction to OCaml
- Installing the OCaml Environment
- Development Tools
- A Full OCaml Program
- How to write and execute a basic program
- Predefined data types
- Advanced Control
- The Standard Library
- Defining new data types
- Types in the Standard Library
- Deeper in the Type System

Langages

French



English



Result Indicators

- Mean satisfaction score: 18.5/20
- Taux de réussite: 100%

CONTACT

✉ contact@ocamlpro.com

☎ +33 6 72 73 37 53

📍 21, rue de Chatillon, 75014, Paris, France

🏠 training.ocamlpro.com

🐦 @ocamlpro

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TRAINERS

Pierre Chambart (OCaml)

Pierre has been an R&D engineer at OCamlPro since 2013, following a PhD in formal methods and a postdoc on web programming in OCaml. Pierre is a member of the OCaml compiler core team, specializing in optimized code generation. He is also one of the main developers of the Tezos blockchain in OCaml.

Vincent Laviron (OCaml)

Vincent has been an R&D engineer at OCamlPro since 2015. After working on adapting abstract interpretation techniques to OCaml, Vincent joined the team working on Flambda, the optimizing compiler for OCaml, and is now a member of the OCaml compiler core team.

TRAINING PROGRAM

Introduction to the OCaml training

- General introduction and objectives of this OCaml training
- Main features of the language, advantages and positioning
- Properties of OCaml (speed, errors, safety) and programming paradigms

Examples of practical use cases: round table, exchanges on the multiple professional contexts and prospects of use of the new skills

Introduction to OCaml

- The Story of OCaml
- The OCaml Ecosystem

Installing the OCaml Environment

- Opam, the OCaml package manager
- Editing tools for OCaml

Development Tools

- The OCaml interpreter
- The OCaml compilers (bytecode, native code, javascript)

A Full OCaml Program

- Rewriting the grep tool in OCaml
- How to compile and execute a program

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How to write and execute a basic program

- How to invoke OCaml
- Structure of a program
- Definitions and expressions
- Structures of control

Predefined data types

- Types in OCaml
- Primitives types
- Predefined imperative types
- Predefined functional types

Advanced Control

- Imperative loops
- First class functions
- Pattern-matching on values
- Exceptions

The Standard Library

- Primitive types
- Data structures
- Input-Output Functions
- The system interface

Defining new data types

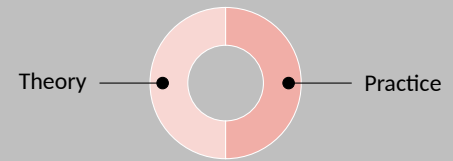
- Type aliases
- Records
- Algebraic types
- Exceptions again
- Recursive types
- Polymorphism

Types in the Standard Library

Deeper in the Type System

- Type inference
- The unification algorithm

THEORY VS PRACTICE





EVALUATING PROGRESS

We make the progress of our trainees and its evaluation a core aspect of our courses. Indeed, guaranteeing the durable acquisition of the skills at hand is key, especially for the newer comers. To that extent, we will have trainees undergo tailored group works, exercises and hands-on practice which modalities can all be customised to your specific needs.

At the end of the course, you will have an opportunity for feedback to help us improve upon our methods. This is crucial as we believe there is always room for learning on both sides of the desk and no opinion other than yours matters more for us to do so.

CONSIDERING RQTH(RECOGNITION OF HANDICAPPED WORKER STATUS)

If people with disabilities are part of the course, do reach out to us so we can adapt the training accordingly.

PEDAGOGICAL RESSOURCES

The ressources are written by the OCamlPro team prior to the courses. Documents are generally written in english and can be translated to french if need be.

FUNDING RESORTS IN FRANCE: OPCO AND CPF

The funding of the training by the OPCO is possible as OCamlPro has received the Qualiopi certification. The two following conditions must then be attained:

- The funding must cover all expenses relative to the course.
- The funding agreement must get to us five days prior to the training session at the latest.

INTER CORPORATION TRAININGS

Les horaires pour nos formations inter-entreprises in-situ sont :
Start - 9:30AM Lunch Break - 12:00PM to 01:00PM End - 05:30PM