

OPAM: yet an other OCaml Package Manager

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The OCaml eco-system is still lacking a good package manager. Over the last few years, several attempts have been made to try to fix this issue, but they all suffer the same drawbacks: they all make basic assumptions which are convenient when you deal with a small number of packages, but which make them do not scale because they do not handle the dependencies and conflicts correctly.

This talk will first present an overview of the existing solutions to manage OCaml packages (`ocamlfind`, `oasis`, `barbra`, ...), with some focus on dependency management. We will then present OPAM, whose core is the dependency engine written by the Debian team for `apt-get` (which coincidentally is written in OCaml). Having a richer dependency constraint language can enable for instance the use of multiple libraries sharing subsets of the same signatures.

The talk will then focus on some of the advanced OPAM features:

- integrate easily with any build system
- support of CNF-formulas for dependency constraints (like Debian packages)
- support multiple repositories at the same time (easy to set-up your own for your projects)
- custom protocol to easily update packages to repositories
- support for collection of inter-dependent dev packages managed by git
- parallel processing of packages (install, remove, upgrade...) with automatic recompilation of forward dependency
- support for optional dependencies with incremental recompilation (when a package which is an optional dependency of some other is installed)
- management of multiple OCaml compiler versions at the same time

We will conclude this talk by a quick demo.