A Case for Multi-Switch Constraints in OPAM

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OCaml’2014 Poster Session
OPAM Today

Since 4.02.0, the official way to install OCaml

`opam install packages`

- Select the `switch` to use
- Build a CUDF universe with:
  - The packages available for the switch
  - The dependency constraints between these packages
- Send the universe to the CUDF solver:
  - The internal solver gives one solution
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Multi-Switch Constraints

- Add a *switch* prefix to each package name
- Allow dependency constraints between packages with different switch prefixes
- `opam install packages`
  - Build a CUDF universe for all switches at once
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Use-Cases

- Cross-compilation (*build* and *host* switches)
- Multi-switch Packages (*ocp-indent*, ...)
- All-Switch Commands
  (opam install-all ocamlfind.1.5.2)
- Per-Switch Repositories
- External Dependencies
  (a *system* switch for conf packages)
- Application-Specific Switches
  (*coq* switch extending *ocaml* switch)
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Discussion

During the poster session!