



COQ DEVELOPMENT TEAM SESSION

Coq Development Team

CoqPL 2019

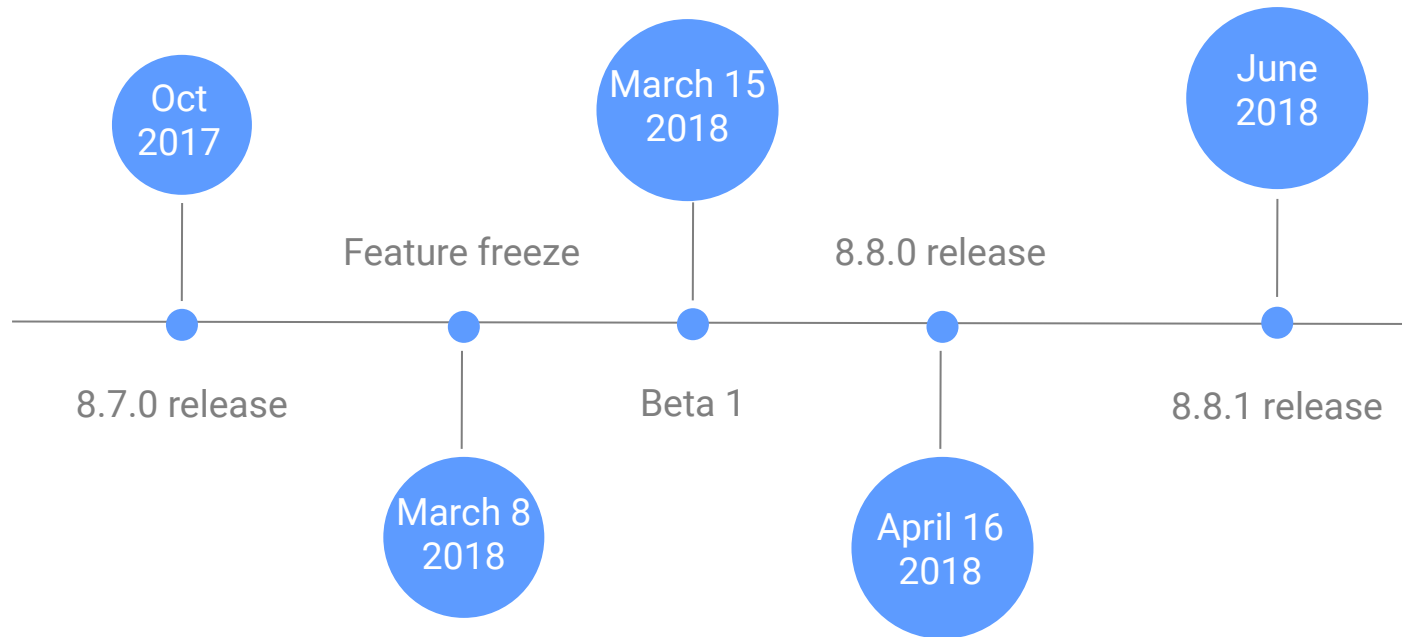
Cascais, Portugal

January 19th, 2019

OUTLINE

1. Coq 8.8 Recap
2. Coq 8.9
3. Coq Future
4. Coq Consortium
5. Q & A

Coq 8.8 Schedule



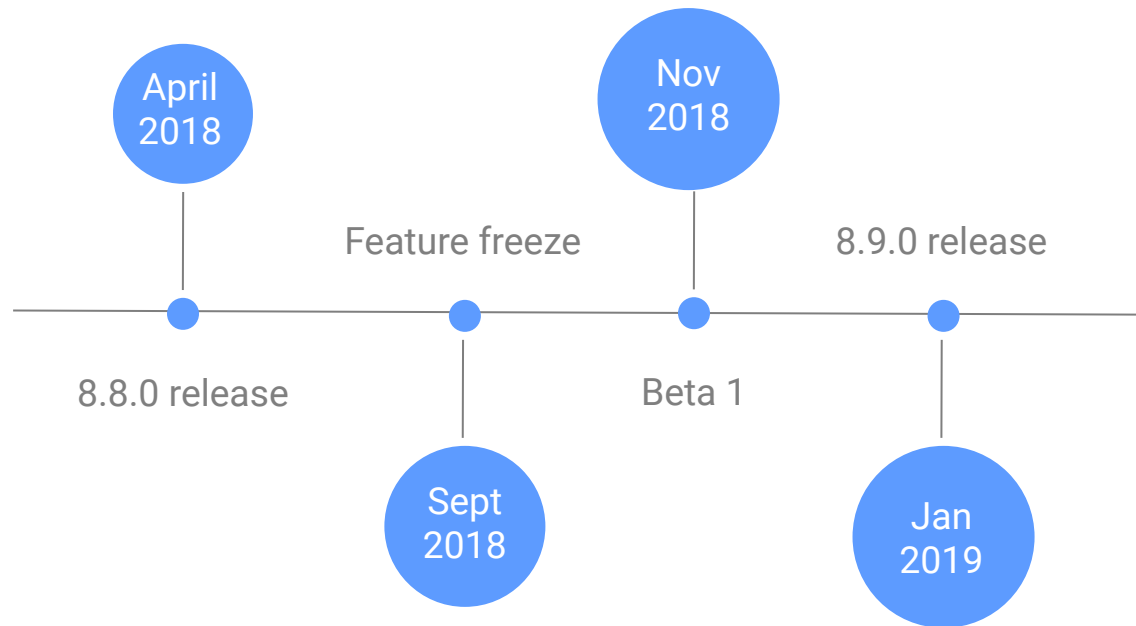
Coq 8.8 Features

- Mangling of generated names mode
- Tacticals for profiling/timing tactics
- Universes: user-level enhancement (naming and printing) and more relaxed conversions.
- Notations with patterns, recursive notations improvements
- Porting documentation to Sphinx (help was very welcome!)
- ... see CHANGES or

<https://github.com/coq/coq/releases/tag/V8.8.0>

Active developer projects: Ltac 2.0, ELPI, SerAPI, Equations, JsCoq, ...

Coq 8.9 Schedule



Coq 8.9 features

- Mutually-recursive records
- User defined grammars / tables for notations
- Numeral Notations
- Diffs between proof steps in coqide/coqtop
- (Experimental) Attributes on commands
- Deprecations and removal of redundant features

In the Pipeline for Coq 8.10

- Checker refactoring
- String Notations
- Integration of camlp5's engine (ml4 to mlg migration)
- Build system overhaul switching to Dune
- Combined Scheme in Type
- New intro patterns in SSReflect (+, =>>)
- Ltac 2 (talk this afternoon)
- Separation of parsing and execution
- Unifying unifiers

Coq Future

- Primitive integers (8.10) and arrays (later)
- Strict propositions
- Improved UI support (LSP server)
- Stdlib 2.0 (<http://github.com/coq/stdlib2>)
- Coq Package Index redesign
- Dune support for user developments
- Inductive-inductive/inductive-recursive types

Long term:

- Exceptional type theory?
- Type-based termination?

Development news

- Systematic use of PRs and consolidated CI infrastructure (open to submissions!)
- Decentralized merging process based on code owners
- Partial automation of the PR process using coqbot by Théo Zimmermann
- Launch of the coq-community project:
<https://github.com/coq-community>

Come chat on gitter.im/coq/coq!

Coq Consortium

- Vincent Laporte was hired in September 2018
- Maxime and Vincent focus on making the system more accessible:
 - Redesign of the standard library
 - Easier deployment of Coq and its packages
 - Improved support for building User Interfaces
 - Documentation Infrastructure
- Feedback on your development priorities welcome!

Thank you!

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