

# Progress in PA-Coq

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# Roadmap

- 1 Demo
- 2 Coq / CoqIDE
- 3 JEdit

# Good news

I got a position @Inria

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A new post-doc will join

topic: concurrent model for OCaml

# Bad news

Things did not progress much  
(from a Demo perspective)

# Demo

Demo!

# Done

What has been done in these 2 months:

- patch ported to Coq trunk:
  - ▶ Major cleanup of the code
- CoqIDE integration improved:
  - ▶ Out Of Band messages (span-id/exec-id)
  - ▶ lock free text
  - ▶ no aggressive processing of the user's view (yet?)

# Oepen problems

With the cleanup and some more testing we observed:

- .vo files are 15% bigger
- side effects are typechecked twice

On the GUI side:

- Coq IDE still uses `Set Verbose`

# Todo list (Coq)

Me:

- fix the known problems
- reform separate compilation
  - .v when compiled generates a .vi and .vp
  - .vi enough data to make Require work (fast to generate)
  - .vp delayed tasks (to be run by the .vi interactive user)
  - .vo obtained as .vi + output of tasks in .vp

The post-doc:

- write an OCaml library to manage a pool of processes
- understand how to send tasks to the workers
- depending on the efficiency, make these API available to various levels of the system



# Done

On the ML side:

- reorganized the code Makarius wrote
- integrated it with the build system
- extruded from CoqIDE

On the Scala side:

- integrated it in the Coq quild system
- partitioned as follows

```
40K  coq/  
52K  isabelle/  
428K pide/
```

- compile a plugin for a (vanilla) jedit 4.5  
47 files changed, 620 insertions(+), 436 deletions(-)