Chapter 1

Elpi implementation of Inductive

1.1 Functor

- We can also make commands
- What do we get as input for our commands
- What do we need to turn it in to
- Show example for isMLL

1.2 Monotone

1.2.1 Proper

- Write tactic for solving IProper proofs
- We write small tactics for different possible steps
- Simple steps, for respectful, point-wise, persistent
- Finishing steps for assumption and reflexive implication
- Apply other proper instance
- Find how many arguments to add to connective
- Lemma to get IProper instance from IProperTop instance
- Apply Lemma IProper
- Compose till all goals proven

1.2.2 Induction for proper

- Create Proper Type for fix-point
- Add point-wise for every constructor using fold-map
- Add this to left and right of respectful with a persistent around left-hand side
- Apply proper solver

1.3 Least fix-point

- The basic structure is this …
- We recurse over the type of the fix-point to introduce lambda's and existential quantification
- As the last step we add lambda's for any parameters we have