

A logical framework with support for partial functions.

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I will discuss a logical framework that is designed with the purpose of checking programs and mathematical proofs.

A logical framework is a logic that is very strong, but simple. Its purpose is to serve as a proof checker for other logics. Due to the simplicity of the logic, an implementation has a good probability of being correct. Due to its strength, the logic that one actually wants to use, can be embedded in the framework.

The framework that I present is intended to support logics with subtyping and partial functions. I will explain why these features are important, why I think that existing frameworks do not support them. Then I will explain the framework itself, and show how some standard and non-standard operators can be embedded into the framework. Some of the embeddings are unusual.

I will conclude with some remarks about consistency of the framework.