

Oeuf

Eric Mullen, Stuart Pernsteiner, James Wilcox

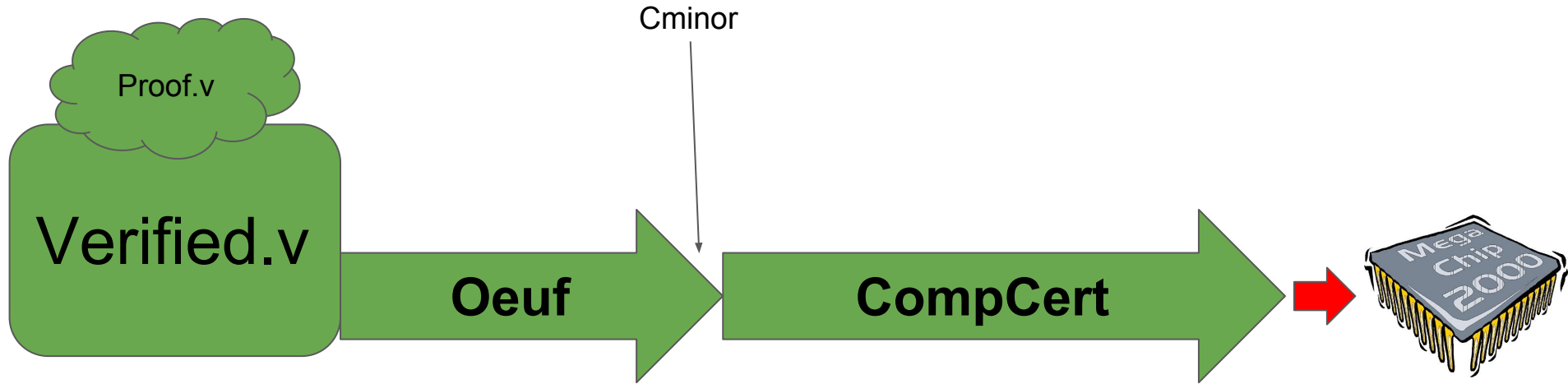
Yesterday: Extraction

Verified.v

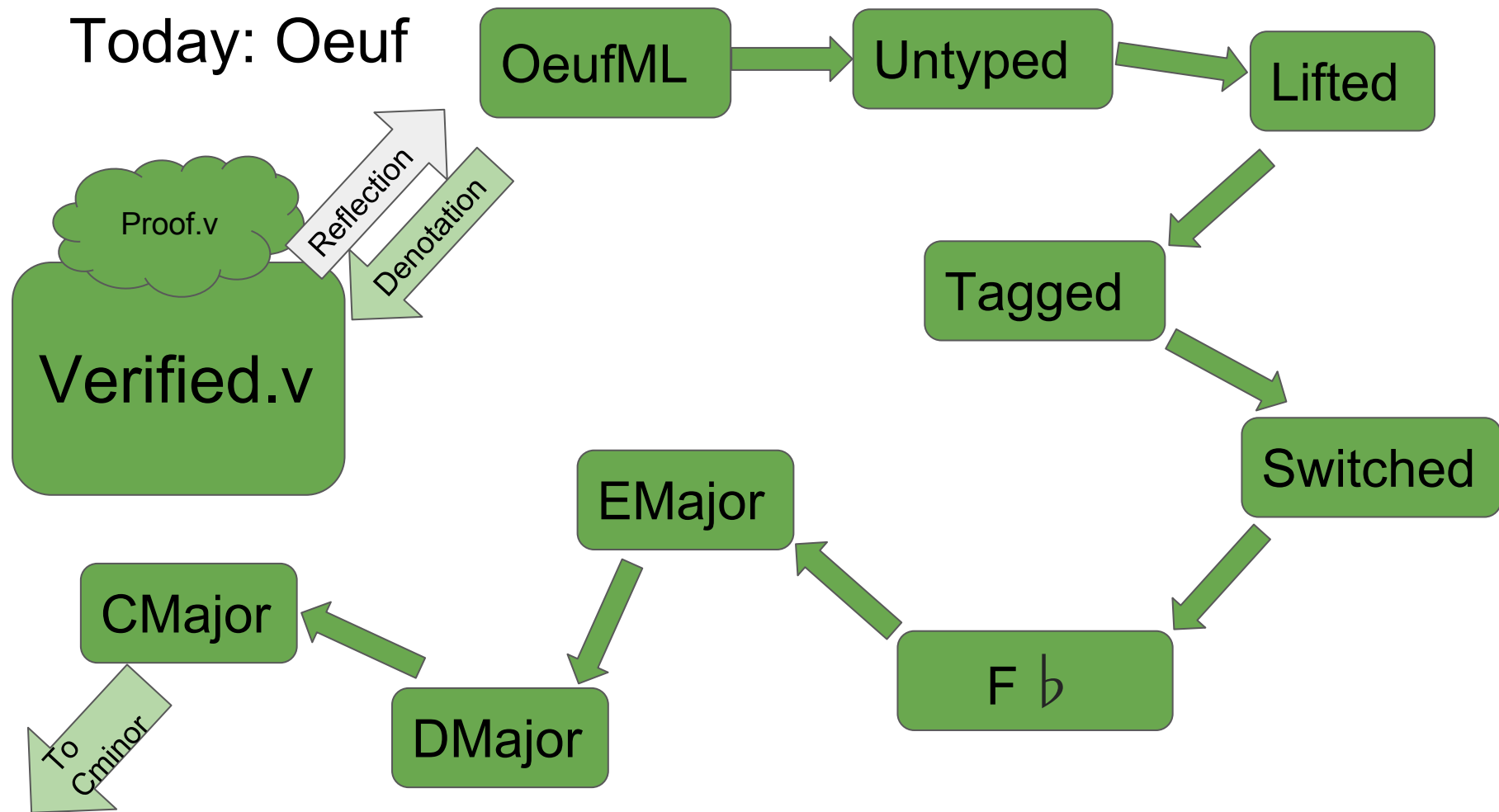


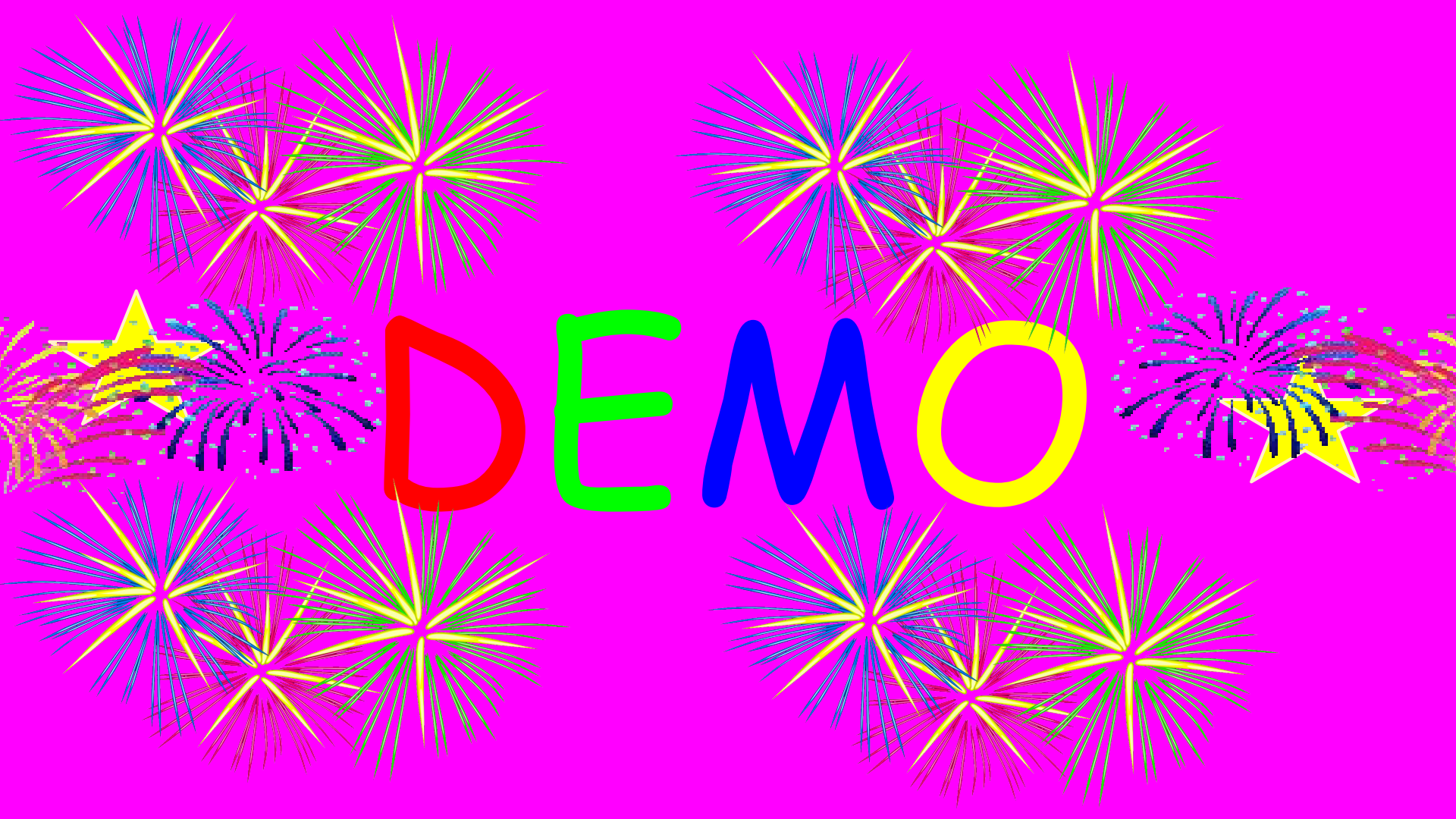
Unverified.ml

Today: CompCert + Oeuf



Today: Oeuf





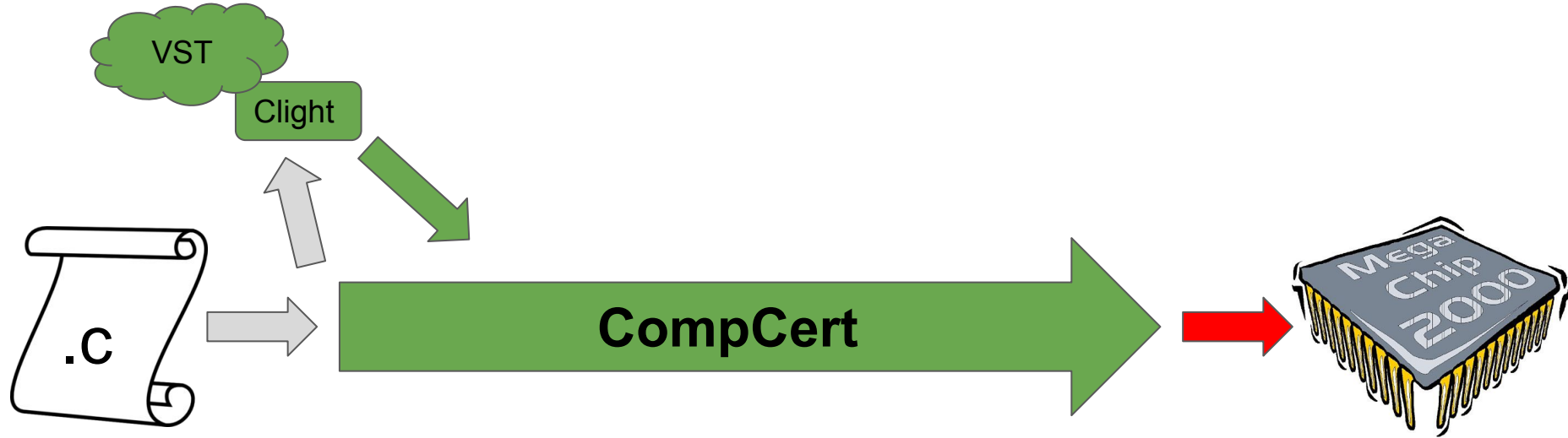
DEMO

Features of OeufML

$t ::= \text{bool} \mid \text{nat} \mid \text{listnat}$

$e ::= x \mid \lambda x. e \mid e e \mid \text{Constr } [e] \mid \text{Elim } [e] e$

Related Work: VST



Future Work

Verification!

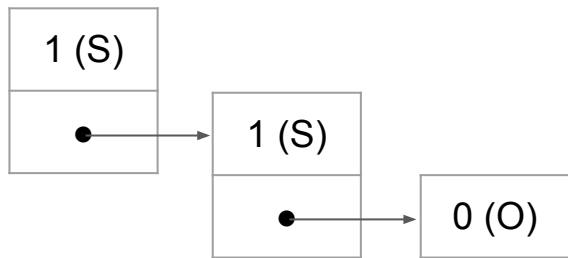
Polymorphism?

Apply to systems

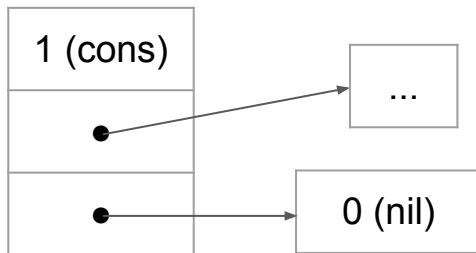
Garbage collection

Value Representation

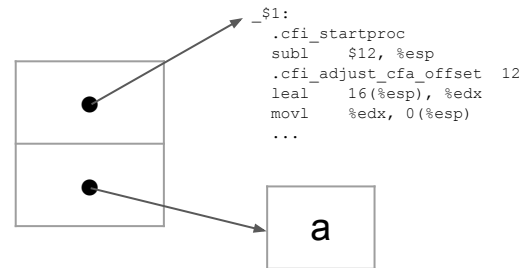
S (S O) [a.k.a. "2"]



(...) :: nil



$\lambda b. a + b$



To
C
C
Reflection
Denotation

Proof.v

Verified.v

OeufML

Untyped

Lifted

Tagged

Switched

Flattened

EMajor

DMajor

CMajor

Cminor

