





## 2.2. Machine processable semantics

The current Sugar 2.0 document is admirably clear, but it is informal mathematics presented as typeset text. Tool developers could benefit from text.

"b"

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91.  $(w = [1]) \wedge (M; j = b)$

[illegible]

We define a semantic function  $F_{SEM}$  such that  $F_{SEM} M \models f$  means FL formula  $f$  is true of path  $M$ . We write  $(\vdash j \vdash r)$  for  $F_{SEM} M \models f$ .

Note that in the semantics below it is not assumed that paths are necessarily

Tf 8.3co





With the first approach

$(M; \models^C f)$   
 and the strong clocking by defining

$$(M; \models^{C!} f)$$

The complete semantics is given in the appendix, but here is the semantics of boolean expressions b:

$$((M; \models^C b) = \text{true}) \text{ iff } (M; \models^{C!} b)$$







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translating the typeset semantics into HOL. We had carefully and









$$((M; \quad j^c!$$



