

**Minutes of the:  
held in:  
on:**

**Ecma TC39-TG1  
Mountain View (Mozilla)  
16<sup>th</sup> February 2006**

## Attendees

- Brendan Eich, Mozilla Foundation
- Ed Smith, Adobe Systems
- Dave Herman, Northeastern
- Graydon Hoare, Mozilla Foundation
- Jeff Dyer, Adobe Systems

## Agenda

- Introductions, Dave Herman (Northeastern)
- Sound semantics: why we want it, how much to invest, how to avoid diminishing returns.
- Goal: minimize proposal space, focus on core issues, but don't cut necessary small things.
- Go through [clarification issues](#).
- Go through [foundational issues](#).
- Review [recent changes](#) on the wiki.

## Notes

- Brendan: Edition 4 should not be over-minimized, because uptake on the web will be slow. We won't get the chance to do a new edition each year and have browsers and authors keep up.
- Graydon: IEEE754r is on the brink of disaster. What can be done? Voted for the "August agreement" along with Mike Cowlishaw, lost. We could use IEEE854, Mike's model, whatever – we need to decide whether decimal is in Edition 4. That means thinking through operators, if we want decimal and/or operators.
- [Dave intro and pitch for sound semantics](#), not just for proving theorems but also for shaking out hard to find bugs in the type system and language. Also for clearly guiding implementations. For soundness of type systems, can subset language. For whole-implementation template, modeling the whole thing can win.
  - Jeff: can we take a formal model and translate it into something readable to mere mortals?
  - Dave: operational semantics ("abstract machines", reduction semantics) are pretty readable.
  - Jeff: if we don't model the whole language, how do we transition to a pseudo-code spec?
  - Dave: the specs should be consistent or equivalent. Operational semantics for Edition 3 was more succinct than Edition 3's "Basic-programmed grammar" style. Small-step OS are better for modularity, exceptions and other non-local control effects. Big-step makes scaling proofs harder.
  - Presentation on CEKS.