Re: Request for Reference/Link to example of defining a theory/logic.

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- *From*: "Scott" <ToaTerra@xxxxxxxxx>

- *Date*: 10 Nov 2006 12:51:50 −0800

Charlie−Boo wrote:

> I am requesting help in locating a link or reference showing an example of defining a theory and/or logic. I am constructing a formal system that will emulate first−order logic and set theory.

Why?

Long story not worth going into here. Let's just say first−order logic is incomplete and therefore I need a new improved formal system. :)

> Or even better yet, insted of reinventing the wheel, invent a new wheel: axiomatize some branch of Computer Science, e.g. Theory of Computation (Turing), Recursion Theory (Kleene), Program Synthesis (Boo), Incompleteness in Logic (Godel) etc. Or a branch of Mathematics e.g. Number Theory (Peano Arithmetic is terrible for this − just as bad as ZF.)

I guess that is exactly what I'm trying to do. Perhaps an analogy will be useful: Given the computer language C, what is the set of things I would need to show that C emulates first−order logic, set theory, etc... I would like to cast first−order logic in terms of functions and would like a reference/link/help in determining how to go about doing this.

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