

occam Obviously

Fringe Presentation

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Abstract. This talk explains and tries to justify a range of questions for which its title is the answer. It reviews the history of occam: its underlying philosophy (*Occam's Razor*), its semantic foundation on Hoare's CSP, its principles of *process oriented design* and its development over almost three decades into occam- π (which blends in the concurrency dynamics of Milner's π -calculus). Also presented will be its urgent need for rationalisation – occam- π is an experiment that has demonstrated significant results, but now needs time to be spent on careful review and implementing the conclusions of that review. Finally, the future is considered. In particular, how do we avoid the following question being final: which language had the most theoretically sound semantics, the most efficiently engineered implementation, the simplest and most pragmatic concurrency model for building complex systems ... and was mostly forgotten (even as its ideas are slowly and expensively and painfully being reinvented piece-by-piece, as they must be)?

Keywords. occam-pi, concurrency, formal analysis, multicore, efficiency, scalability, safety, simplicity.

