Building Models: A Direct but Neglected Approach to Teaching Computer Science *

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Abstract

The use of software models for teaching a variety of computer science topics is a valuable technique. Such models may be studied by reading and examining the model itself. Additionally, the models form the basis for experimentation. The J language is particularly well suited for modeling. It is not necessary that students be proficient in J programming to make effective use of J models and experiments with models are easily devised so that laboratory measurements may be taken. Example models for a number of computer science topics are given.

Subject Areas: Computer Science Education, Computer Science Curriculum Computer Science Laboratories. Keywords: Modeling, J Programming Language.

*With apologies to Berry, Falkoff and Iverson who used a similar title [?] for a paper on teaching mathematics which was inspiration, in part. for this paper.