A beginners' guide to debugging SD models

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Abstract

All modellers make mistakes. Part of these mistakes are clearly wrong and need to be addressed by debugging the model. System dynamics Literature, however, had thus far very little attention for this rather mundane task. This lack of interest is understood by the very nature of the process of debugging, which builds heavily on modellers' experience and can be considered tacit knowledge. In this paper, we propose a first attempt of a flow chart for aiding novice SD modellers in learning how debug models. We do so by carefully tracking our own actions if we debug a model deliberately enriched with a selection of frequently made mistakes by novice SD modellers. We believe that the debugging flow chart may assist novice modellers in better and easier debugging of their models. However, we also believe that this flow chart is only the beginning of a discussion about the debugging process with more experienced modellers.

Keywords: Verification, Debugging, System Dynamics

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