THE MODELLING OF DYNAMIC OBJEKTS IN THE SOFTWARE MATHCAD

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There in this article is written about the role of information technologies in development of higher education. I would like to prove connection between mathematics and information technologies. Mathematical software Mathcad's visual interface helps them connect with more abstract concepts. Students see all their equations and calculations in standard mathematics format and, because it's live, they can demonstrate the effects of parameter changes on the spot. To maximize learning by using alternative instructional methods in the introductory university mathematics courses, professors typically hold four classes per semester in the computer lab to teach students how Mathcad can solve differential equations and how to do numerical integrations. Students use Mathcad to visualize patterns, build general ideas about science. First and second year computer science students , are getting help with visualization, modelling, and algorithm building from an unlikely source: Mathcad. Students program in Mathcad using the animation feature, and then we help them extend beyond that. Well do an animation of an object flying around, but then make it more complex by introducing turbulence through the use of Mathcads random number generator. Then, within that context we introduce the concept of a quadratic model. In general, he says, students use Mathcad "to visualize patterns and then build more general ideas about science." We use it with high dimensional data sets to teach them how to visualize space. We use projections and animations to get a handle on the data.

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