

7.1.2

Visualization: Extravagant or Essential (in the Era of Budget Cuts.)

Presenter

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Over the last 20 to 30 years, civil engineering plans have evolved from pen on linen to high-tech CAD plan sets. While that evolution has helped to increase engineering productivity, it has not increased engineering plans 'understandability' to the public. In order to increase the plans understandability, engineers have turned to the graphic capability of GIS. While this has helped, GIS products are still typically 2-D, and therefore still not easily understandable.

Enter visualization: A new 3-D (and 4-D) animation tool that engineers are starting to use to increase understanding of complex engineering projects, by the public and by engineers.

The paper will describe: 1) The role of GIS in visualization. 2) Issues, benefits, costs, and timeframes in creating visualizations. And, 3) examples of using visualization on real, live DOT projects. It will also attempt to answer the question: Is visualization extravagant or essential on engineering projects?