Abstract

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An Internet-Based Urban Growth Simulator: Its Implementation and Application
Track: Modeling
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Developed for Internet-based simulations, the Urban Growth Simulator allows users to select from a suite of available options for growth management when generating build-out scenarios. With all required data layers for the 15-county region in northeast Ohio freely accessible and available from the simulator's server, planners, government officials, and the general public can use the Urban Growth Simulator to examine how their communities are to be affected by potential growth. With generated build-out scenarios, the Urban Growth Simulator also performs calculations for estimating environmental impacts due to simulated growth.

The Urban Growth Simulator was developed by using a combination of codes in Visual Basic with MapObjects and functions in ArcIMS. The implementation of the simulator demonstrates the versatile capability of combining MapObjects and ArcIMS. In addition to county-level planning agencies, the Urban Growth Simulator is being used to support a watershed management project for Grand River, also in Northeast Ohio.

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