

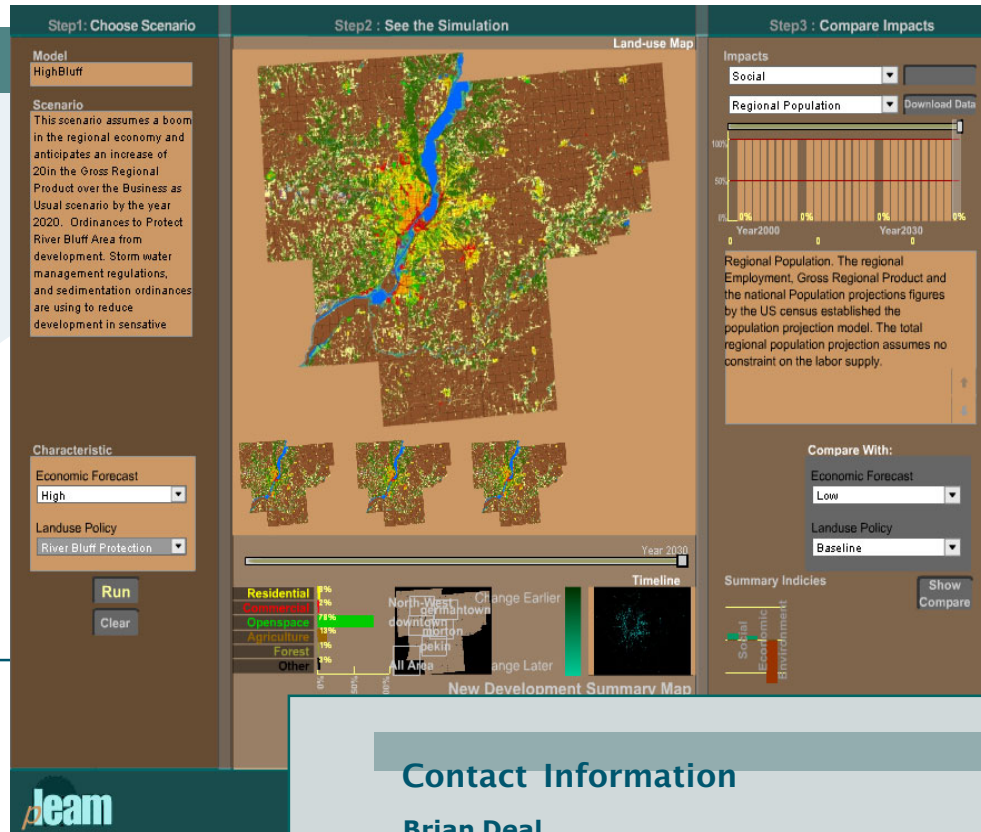
The
"Planning
Dashboard"

LEAM's Web-based
user interface

About LEAM

LEAM development and applications are conducted and managed by a team of faculty, staff, and students at the University of Illinois at Urbana-Champaign.

LEAM brings together expertise in substantive issues, modeling, high-performance computing, and visualization from the departments of Urban Planning, Geography, Economics, Natural Resources and Environmental Sciences, Landscape Architecture, Civil Engineering, the National Center for Supercomputing Applications (NCSA), ERDC Construction Engineering Research Laboratory, and private industry.



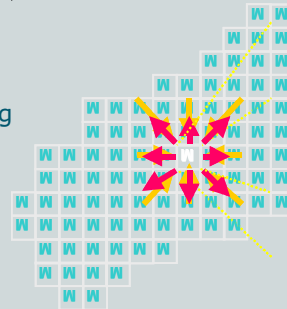
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LEAM WEB:
www.rehearsal.uiuc.edu/projects/leam



Recent work and simulation examples can be viewed on the LEAM web.

leam and impact assessment
evolution
landuse



What is LEAM?

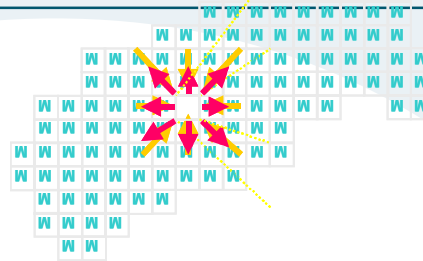
LEAM is a process of modeling, visualizing, and testing the impacts of land-use policy decisions.

Through dynamic spatial modeling and a Web-based interface, LEAM simulates land-use change across space and time, providing a basis for discussion and decision-making.

The LEAM Process

To begin with, planners and stakeholders identify the local factors that drive land-use change in a region. Using this information a region-specific model is then developed, while these planners and stakeholders identify the future policy scenarios they would want to explore.

Some scenarios that have been modeled include implementing an agricultural land preservation policy, a sensitive habitat protection policy, new road construction, as well as scenarios involving major shifts in the regional economy and changing demographics.



Once different scenarios are run, they are available to local planners and stakeholders through a Web-based interface. Users select a particular scenario, and then review the evolving land-use pattern along with social, economic, and environmental impacts of these changes.

In this way, LEAM facilitates a collaborative planning dialogue.

Why Use LEAM?

Applying LEAM to a region is a participatory process that involves local stakeholders and helps build a shared understanding of issues and forces at play. LEAM also has several technical advantages:

1. LEAM is an open, modular approach that promotes collaborative review and development.
2. LEAM not only simulates land-use change, it estimates social, economic, and environmental impacts of change
3. LEAM runs on high-performance computing platforms. We model large regions (11 counties) at a very fine resolution (30m X 30m).

LEAM Applications

- The St. Louis SMSA
- Tri-County Region: Peoria Illinois
- Fort Benning, Georgia/Alabama
- Kane County, Illinois

To learn more about these projects and the technologies involved, visit the LEAM web: www.rehearsal.uiuc.edu/projects/learn

