Innovations Showcase

Projects First-Round Winner
Innovations Challenge
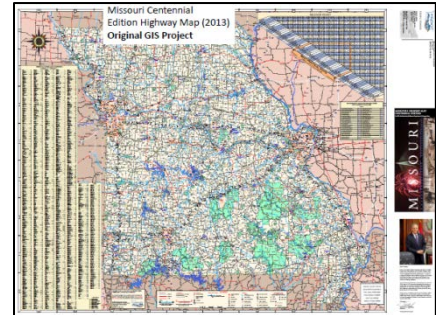http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm

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Prepared by Transportation Planning
Missouri Department of Transportation

State Map GIS Conversion

A GIS map consists of muliple layers of geographic data.

Description

This innovation involved creating the Centennial Edition of the Official Missouri State Highway Map for the first time in ArcGIS instead of CADD. Now that the map exists in GIS, significant savings can be realized in producing future maps, as the map's data layers are simply updated from their original sources. Spin-offs of this GIS map can be created quickly and efficiently. Substantial time was saved when completing custom map requests (For example, the oversized custom black and white map for the Motor Carriers Division). Best practices, challenges and lessons learned have been shared with other state departments of transportation. Features of Map GIS data have been shared with mapping teams in Illinois, Kansas and Maryland, Missouri's departments of conservation and natural resources, as well as county and city partners.

Benefit

This project was started with a clean slate and included researching, locating official sources and updating more than 70 GIS data layers symbolized on the map. Research found this project to be the first one completed nationally by a transportation department using ArcMap Desktop without a contractor. Using GIS allowed the ability to use internal Transportation Management Systems roadway data, eliminated errors and allowed MoDOT major roads to be symbolized uniquely in the map's legend for the first time. This new map is now available to the public as a "Geo-PDF." This PDF map feature allows easy usage with mobile devices and has new linear and area measuring benefits as well as latitude and longitude extraction. The ability to view a zoomed map on an electronic device enhances travel safety. The map was exported to a high-quality PDF to enable professional printing. Data on the map was stored in a geo-database, common to storage and management framework for ArcGIS. It creates a central repository for spatial data storage and management and can be leveraged on desktops, servers or mobile environments. This allows storing GIS data in a central location for easy access, collaboration and sharing.

For More Information Contact:

Joe Carter at joseph.carter@modot.mo.gov or (573) 526-8051.

Additional photos can be seen by accessing the Innovations Challenge homepage at: http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm.