ESRI Transportation Special Interest Group Meeting
Thursday, October 15th, 2009
9:00am – 3:00pm

Delaware Valley Regional Planning Commission
8th Floor – Main Conference Room
ACP Bldg – 6th & Race Sts. - Philadelphia, PA
Directions: http://www.dvrpc.org/about/directions.htm

Alternatives for Spatial Data Interoperability in Transportation

A wide array of management information tools have evolved in the transportation industry. These range from static CAD drawings to complex, autonomous applications for managing bridges, pavement, travel demand modeling, traffic simulation, vehicle routing, and much more. Perhaps as much as in any other field, it is important to know where transportation objects and events are in relation to one another.

Effective system management requires at least a degree of integration or interaction among these applications, their data silos, or their analysis outputs. Within applications, "consuming" data from other applications or silos ensures data integrity and is typically less costly than re-generating or replicating it. For smaller agencies, management information systems may be based on simple spreadsheets and databases. However, data interoperability is no less important.

From a definitional perspective, "interoperability" implies separate applications that share resources, particularly data. However, the situation on the ground is more complex, as modules within a complex application may function relatively autonomously and merely point to a common data container. Specialized applications increasingly are able to access data in a variety of technical ways. These include ODBC (open database connectivity) standards or a common RDBMS (relational database management system) such as Oracle. We can also think of "interoperability" at a higher level than the specialized application, with enterprise information integration (EII) tools that script transformations to share data between applications (ETL, extract-transform-load) or that provide a means to integrate data from a variety of formats for analysis and re-presentation (e.g., ArcMap). Taken more to the bleeding edge, interoperability occurs in a service oriented architecture (SOA), where data or application processes are served up to a common, network-accessible platform. Since these are all ways to share common resources, we consider them as species of "interoperability."

AGENDA

1. 8:30 – 9:00 Registration
2. 9:00 – 10:30 "Field Definitions, Needs, and Opportunities" – Simon Lewis
3. 10:30 – 10:45 Break
4. 10:45 – 12:15 "ESRI Solution Approaches and Best Practices" – Jim VanOstenbridge
5. 12:30 – 1:30 Lunch
6. 1:30 – 3:00 User Experiences and Open Discussion - An opportunity for participants to discuss the day's presentations, and share their own issues with, and solutions for, interoperability.