



Enterprise GIS Strategic Planning at the Ohio DOT: Promoting Buy-In and User Involvement

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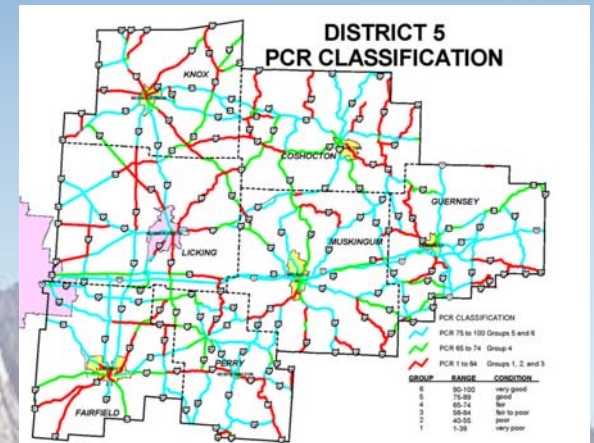
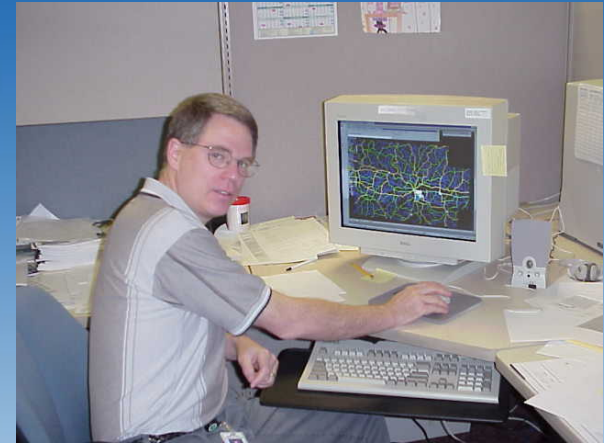
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Why a GIS Strategic Plan?



- ✦ **Rather Mature System**
- ✦ **Controlled Continued Development**
- ✦ **Time to Expand Outside Central Office**
- ✦ **Prioritizing of Projects Needed**
- ✦ **Outside Confirmation of Direction**
- ✦ **External Review of System**





Plan Tasks

✧ System Review

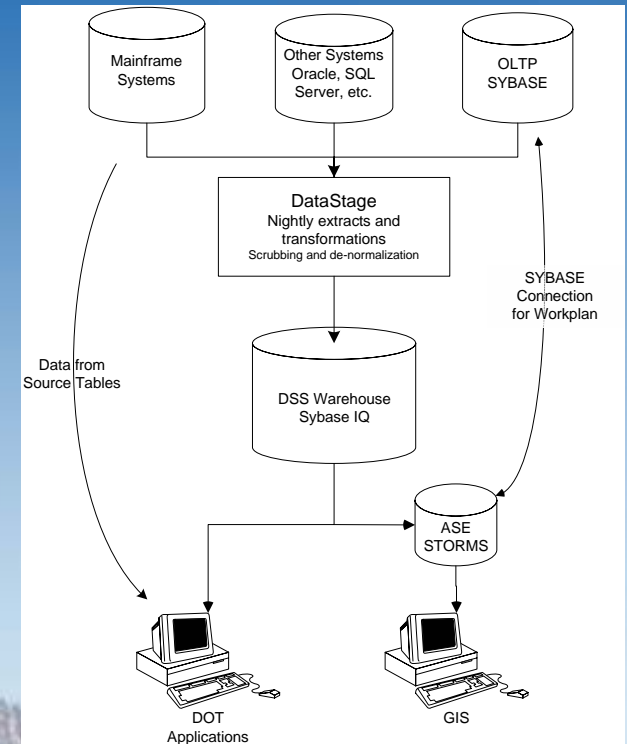
- *Helped to Establish Current Status*
- *Helped to Avoid 'Boiler Plate' Approach*

✧ Visionary Workshop

- *Marketing and Buy-In*

✧ On-Site Interviews

- *Top to Bottom – Director to Field People*
- *Internal and External*
- *Current and Non-GIS Users*
- *GIS Proponents and Opponents*





Plan Tasks

★ **Electronic Survey**

- *Gather Input from a Much Larger Group*
- *Cost-effective*
- *10-15 Minute Time Frame – Reasonable*
- *Multiple Choice and Free-form Input*
- *District And Work Unit Location*
- *Optional Identification of Individuals*





Identifying User Needs

- ✧ **Setting GIS Direction: Visioning Workshop**
- ✧ **Business Unit Interviews**
- ✧ **Electronic Survey**





Setting GIS Direction

★ GIS Vision Statement

- The Ohio Department of Transportation's GIS is a user-friendly, state-of-the-art, integrated transportation-related information tool **that supports the Department's mission.**





Setting GIS Direction

✦ GIS Strategic Goals

- Gain Executive Leadership support, for funding, staffing, and training, for advancing GIS by **linking to Strategic Initiatives**.
- Prioritize and convert the Department's data into a seamless, standardized format (compatible with the Base Transportation Reference System (BTRS)).
- Establish and implement a policy to **integrate GIS** throughout Departmental operations including the Central Office, District Offices, and County Offices.
- Implement a **continuing process** to ensure that user needs are met.
- Keep GIS technological tools current through a continuous process of evaluation and upgrading.





Visioning Workshop Topics

- ✦ **What Is GIS?**
- ✦ **Why is GIS Important?**
- ✦ **What are the Forces of Change that Affect ODOT Business Now and in the Future?**
- ✦ **What are the Needs and Opportunities for GIS at ODOT?**
- ✦ **What are the Current and Future ODOT Strengths and Weaknesses that will Affect GIS Success?**
- ✦ **Ideas for Specific GIS Applications**





Interviews Question Topics

✦ Business Unit Overview

✦ Information and Databases

✦ Technology

✦ GIS Applications, Perceptions and Organization



ODOT GIS Strategic Plan Interview Questions

Dept./Division:	Name/Unit:
Planning	Matt Selhorst/Division Director
Interviewers:	Date:
Don Kiel, Tony Pietropola, Robert Marsters	1/8/02

General Overview Questions

- What does your unit/work group do for ODOT?
 - Long-term planning – 10 year period.
 - Transportation Improvement Program (TIP) is 4 year-period.
 - MPO support.
 - Urban and Corridor Planning.
 - Systems Analysis Planning.
 - ITS.
 - Technical Services – data collection.
 - Research and Development.
- What maps and data do you use? For what purposes?
 - Map out Work Plans which overlay pavement and bridge information with other information such as safety studies and congestion data. Roadway data is also overlaid with project data. These are used to make decisions that will have the biggest impact. GIS has been a tremendous help by saving lots of time.
 - Congestion, safety maps are used to determine ‘top 10’ problem areas.
 - Districts have been using the data to justify work to be done to locals.
 - In support of OPI (performance indices measurement).
 - Used to address optimizing of needs – projects that have the most benefit.
 - Map products demonstrate the importance of data quality and data validation (improved accuracy).
 - Every two years GIS maps are used to depict TIPs for public forums.



Key Issues and Observations



★ Management Issues

- *ODOT's Mission and Goals need to remain in the forefront of GIS applications and actions.*
- *GIS activities should be coordinated through an ODOT GIS Steering Committee.*
- *Customized GIS interfaces need to be included in existing and planned IT projects (such as ELLIS).*
- *Expanded use and integration of GIS requires programming and application development skills.*





Key Issues and Observations

✧ Data Standards

✧ Data Quality

✧ Data Uses and Integration

- *District Offices use of GIS offers a rich area of opportunity.*
- *Providing access to more **real-time information** should include incidents, crashes, traffic counts/congestion, weather, and construction status data.*

✧ Education and Training

✧ Funding, Staffing, Customer Service

✧ Systems Issues

- *A **simpler, Web-based tool** is needed for those who want to simply view, query, and display data.*





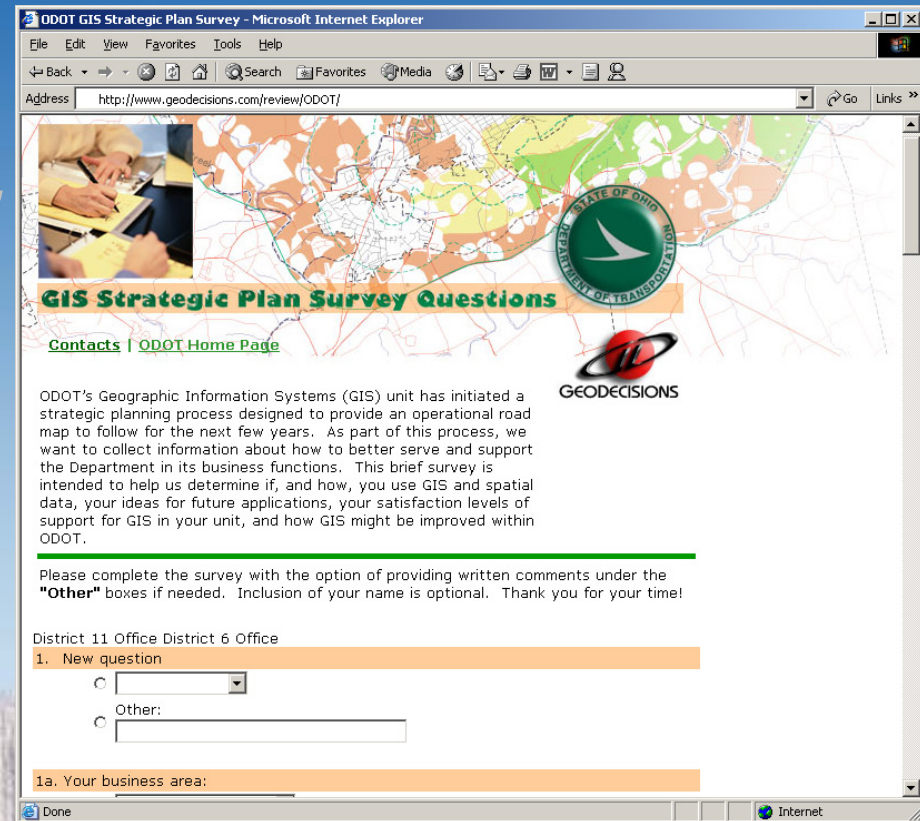
Electronic Survey

★ 208 Respondents

- 21% Central Office staff,
- 73% District Office staff,
- 6% others

★ 14 Questions

- GIS Use and Data
- GIS and Infrastructure Perceptions





Electronic Survey Results

✦ 60% do not use GIS now

➤ *Lack of knowledge, training, availability*

➤ *46% would like 'medium' level of capabilities*

✦ ODOT's Network/Data Access Infrastructure

➤ *79% 'Excellent' or 'Good'*

✦ Satisfaction Level with GIS Service/Support

➤ *82% 'Excellent' or 'Good'*





Electronic Survey Results

✧ Ideas for Improving GIS at ODOT

- *More Training*
- *More Available Data*
- *Better Communication*
- *More Education about GIS*

✧ Highest Application Priorities:

- *Work Plan*
- *Field Data/GPS Integration*
- *Bridges*
- *Project Management*
- *Pavement Management*
- *Environmental/Corridor Studies*
- *Routing/Snow Routes*
- *Safety*



Summary: Keys to Continued GIS Success at ODOT



- ★ Organization
- ★ Continuing the Strategic Planning Process
- ★ Realistic Expectations
- ★ User Involvement
- ★ Data Integration
- ★ Technology Concerns
- ★ Measuring of Success





Questions and Comments?

