CALM, Cool, Collected: Creating a SharePoint GIS at LAX

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LAX Airport

- Gateway to LA: 63 million passengers per year
Coming Soon: LAX 2.0

- $4.1 Billion of Construction Improvements
- Nation’s largest modernization airport project
- Largest public works project in Los Angeles’ history
- LA NeXt Campaign (la-next.com)
Terminal 6 (Spring 2012)
TBIT – Bradley West (2013)
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New “Front Door” (2013)
Central Utility Plant (2014)
CALM Team

Coordination And Logistics Management

Our Mission:
Minimize construction-related impacts to passenger service and tenants.
CALM Team Deliverables

- Master Schedule (Monthly)
- Construction Bulletin (Weekly)
- GIS Database ("Live") - CALM Geodatabase
  - Accessed through SharePoint
CALM Data Management

Projects in Pre-Development Stages (Planning)

Projects in Development Stages (In Design or In Construction)

Completed Development Projects
CALM SharePoint GIS Setup

- Small Budget/Few Personnel
- Quick Turn-around – construction ongoing
- No time for “Needs Assessment”
- Access for LAWA employees only - through LAWA Share
  – Reason: sensitive location and cost information
CALM SharePoint GIS Server Setup

- ArcGIS Server 10
- SharePoint 2010
CALM SharePoint GIS Personnel/Costs

• Initial data collection and resolution (1 FTE – 5 months)
• Data Development schedule and GIS (2 FTE – 4 months)
• GIS System Development (2 FTE – 4 months)
• Hardware/Software Costs ($78,000)
• On-Going/Future Costs (4 FTEs)
Maps by Location or Project

Maps by Location
- CTA
- Terminal 1
- Terminal 2
- Terminal 3
- Terminal 4
- Terminal 5
- Terminal 6
- Terminal 7
- Terminal 8
- TBIT

Maps by Project
LAWA:
- CUP
- Elevators and Escalators
Concessions:
- Concessions T4,5,6,7,8
- TCH #1
- TCH #2

Airlines:
- Alaska
- Delta
- Other
Terminal Homepage

Terminal 6
- 6.35 Million Annual Passengers
- 438,514 sq.ft.
- Major Airlines:
  - Allegiant Air
  - Continental
  - Copa
  - Frontier
  - Great Lakes
  - Spirit
  - United International

Interactive Map (Choose Terminal Level)
- Arrivals and Terminals
- Ticketing and Ground
- Gates

View Map

Los Angeles World Airports
Terminal 6 - Ticketing Level
Tooltip Functionality
Select Table-Highlight Map
Central Terminal Area – Gates Level
Filtering Functionality

1. Date Filter
2. Construction Phase Filter
Space/Time Conflicts

Overlap of IT Room (MPOE) and Tenant Construction Projects
“Out of the Box” vs. CALM System
Map Contents vs. Map Navigation
Group Layers according to Business Requirements

“Out of the Box”
CALM System
Mockup Tool - Balsamiq Program
Development Language

- CALM chose Silverlight 4.0 – fit with SharePoint 2010
- Development done in MS Visual Studio 2010
- Project Management in Axosoft OnTime 11 Web edition
Technical Success/Challenges

• Success:
  1. Out to Production in a few weeks vs. a few months
  2. System’s content well-received

• Challenges:
  1. Maintaining data is cumbersome
  2. Silverlight is phasing out – v2.0 will be a complete overhaul using HTML5 and ESRI’s JavaScript API
Management Success/Challenges

• Success:
  1. Mirrors the newly created Project Approval Process
  2. Executive management very supportive – high ROI
  3. Tool used for Terminal Coordination Meetings

• Challenges:
  1. Complexity of working with different divisions/groups
  2. Story-boarding early on vs. schedule pressure
Benefits for LAWA

• Quickly bridge gap between existing and record drawings
• Resolve conflicts “on paper” rather than in the “field”
• Minimize passenger inconvenience
• More efficient packaging of work
• More information for project managers in terminals – know the “big picture” rather than individual projects
Future Plans

- Future versions planned – standardize data
- Expand to Airside/Landside – entire LAX
- Expand to roof and basement Levels
- Expand team for data upkeep
- Framework for other initiatives – sold GIS to new users
- Opened the Door to Enterprise GIS at LAX
Questions and Comments

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