PATH/UCTC Conference 2007
Posterboard
General Layout

Heading

Panel 1
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INTERMODAL AIRPORT GROUND ACCESS PLANNING FOR SUSTAINABLE PASSENGER MOVEMENT

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Introduction and Objectives

- Growing interest in intermodal approaches to airport ground transportation
- Recognition of the need to develop a combined qualitative (case study) and quantitative (analytical modeling) approach
- Lack of standardized analysis tools for evaluating the viability and impact of strategies to improve intermodal access to airports
- Development of the Intermodal Airport Ground Access Planning Tool (IAPT) to facilitate evaluation of multiple alternatives

Overall Structure of IAPT

Fig. 1 Functional Structure of the IAPT System

Model Components and Interfaces

- Graphical user interface
- Analysis control program
- Mode choice model
- Transportation provider behavior model
- Performance measurement module

Data Management

- IAPT provides a consistent framework to manage the large amount of airport- and project-specific data required for airport ground access analysis
  - regional highway and transit system travel times and costs
  - air passenger survey data and forecast growth in air traffic
  - available ground access modes and associated service characteristics
  - component model parameter values
Graphical User Interface

- Designed to insulate user from many of the underlying details of data management and analysis
- Provides the functionality to manage the interfaces between the analytical components and associated data flows
- Provides a standardized approach to defining airport ground access projects and evaluating project performance

IAPT Use Guide: Data Entry and Analysis Sequence

- Define projects to be analyzed
- Enter data for region, airport or specific projects
- Define measures of performance
- Perform analysis runs
- Display, print or export analysis results

Fig. 2 MOP (Measure of Performance)  
Fig. 3 Airport Selection

Fig. 4 Project Definition  
Fig. 5 Regional Data Entry
Conclusions

- The IAPT provides a standard and user-friendly way to manage the extensive amount of data required to analyze projects to improve airport ground transportation
- Although developed to study California airports, the design is broadly applicable to any airport

Future Development

- Enhance modeling: mode choice model and transportation provider model
- Extend to include airport choice
- Integrate air freight movement into IAPT

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