

## MARTIN LEWIS

### role

Partner  
Senior Applications Programmer for Planning Technologies, I.I.c.

### education

Master of Science, University of Akron, OH, 1988  
Bachelor of Arts, Concordia College, Seward, NE, 1986

### professional experience

Mr. Lewis has 14 years of professional experience in the application of Geographic Information Systems (GIS) in transportation and urban planning. His experience and expertise includes application development, database development, geographic analysis and statistical analysis. This work has included applications and analyses in many areas of transportation planning, including travel demand modeling, air quality analysis, traffic data collection and analysis, transit data collection and analysis, and capital improvement program analysis. He also has experience in the application of GIS to the travel demand modeling update process. Martin has worked extensively in the integration of GIS and travel demand modeling software. Since 1996 Mr. Lewis has been the software applications manager of planning technologies, a technology firm specializing in the delivery of GIS-solutions for land use and transportation planners.

### prior project experience

#### *GEOGRAPHIC INFORMATION SYSTEMS*

*Travel Time Data Processing Software*, Mid-Region Council of Governments, Albuquerque. In this project Mr. Lewis advised on the implementation of a travel time data and designed and programmed software for processing and analyzing the travel time data collected by the Mid-Region Council of Government. The project involved designing ArcPad software for the GPS units and ArcView software for quality control, processing, and analysis of the travel time data.

*Transportation Accessibility Model*, Middle Rio Grande Council of Governments, Albuquerque. Mr. Lewis was involved in the development and programming of this model.

*InfraSum Software*, City of Santa Fe, NM and Infracycle Software, Ltd., Ontario, CAN. Mr. Lewis was involved in the development and programming of software that summarized land use and public works infrastructure information in a format read by the InfraCycle software. The InfraCycle software is analysis and planning tool that helps municipalities evaluate the impact of development on their public works infrastructure, recreation, police protection, fire protection, and other facilities.



*Regional Major Investment Study*, City of Albuquerque Transit and Parking Department, Albuquerque, NM. Mr. Lewis was involved in the coding and analysis of transit route for this major investment study.

*NEI Database Application*, City of Albuquerque, NM. Mr. Lewis was the principal developer and programmer of this database application. This function of this Microsoft Access application was for input of data into the National Emissions Inventory of the US Environmental Protection Agency. The application was designed around the existing US EPA database structure.

*Land Use Forecasting Package*, Middle Rio Grande Council of Governments, Albuquerque. Mr. Lewis was involved in the programming of a major new application involving the use of ArcView to forecast growth and development throughout the region based on user-defined urban policy and real estate economics rules, which emulate developer decisions.

*Subarea Allocation Model II*, Maricopa Association of Governments (MAG). Mr. Lewis was involved in the ArcView implementation and enhancement of the MAG's *Subarea Allocation Model*. The application will disaggregate regional forecasts of economic development generated by the third-party forecasting model DRAM/EMPAL. The model will generate estimates of population and employment for any geographic area; it also creates trip generation data sets for the travel demand forecasting model. The model will be used to produce MAG's forecasting databases.

*General Plan, Kirtland Air Force Base*, for Kirtland Air Force Base, Albuquerque, NM. Mr. Lewis was the lead programmer in the implementation of a GIS based application, which provides an integrated geographic database platform to support the preparation of the General Plan for Kirtland Air Force Base. Aerial photogrammetry, AutoCad infrastructure inventories (building footprints, water, sewer, etc.) have all been integrated into a common ArcView database system to support spatial analyses and presentation graphics. The application also includes an online query system that provides the capability to generate information about the General Plan.

*DOT Commercial Vehicle Operation Project*, State of Colorado. In this watershed project, Mr. Lewis was responsible for database development to support the oversize vehicle permitting system implemented for the Colorado Department of Transportation. The application facilitates routing decisions made in the approval process by accessing and reporting restrictions required of oversize vehicle movements throughout the state highway system.

#### *TRANSPORTATION PLANNING STUDIES*

*Region Major Investment Study*, City of Albuquerque  
*Gibson Corridor East Transportation Investment Study*, City of Albuquerque  
*4<sup>th</sup> Street Corridor Study*, Village of Los Ranchos de Albuquerque  
*Level A Transportation Analysis, Mesa del Sol*, for the New Mexico State Land Office

#### *URBAN PLANNING STUDIES*

*Village of Magdalena Comprehensive Plan*, Village of Magdalena, NM  
*Angel Fire General Plan*, Angel Fire, NM  
*Village of Taos Land Use Plan*, Village of Taos, NM

