**For x-Spatial, the challenge was quickly laser scanning over 1.8 million sq. ft. of interior space of busy LAX International Airport while it remained open for operations... TIMMS from Applanix was the solution.**

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### A TRIMBLE COMPANY

*capture everything. precisely.*

### THE NEED

- Laser scan and georeference over 1.8 million sq. ft. of indoor airport terminal space
- Produce accurate as-built building models for GIS
- Document all assets: chairs, booths, ticketing stands, computers

### SPECIAL CHALLENGES

- Airport must remain open – scan while occupied with travelers, employees etc.
- Must be done fast
- Minimal impact on airport operations
- Must be highly accurate

### SOLUTION

- TIMMS indoor mobile mapping system from Applanix
- Applanix scanning and data development personnel/services

### RESULTS

- Scanned 1.8 million sq. ft. in under 30 hours, reduced from 21 days using the traditional tripod based interior LiDAR method
- No airport closures
- Produced full, complete, accurate as-builts
- Minimal impact to airport operations

**x-Spatial, leaders in airport information management, deployed the Trimble Indoor Mobile Mapping Solution (TIMMS) from Applanix to capture and model 2 terminals at Los Angeles International Airport (LAX) – over 1.8 million sq. ft. of interior space – all while the airport remained open.**

leaders in airport information management
### X·SPATIAL
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x-Spatial works with airport operators and owners to develop software solutions for large, complex infrastructures. Their products provide lossless exchange of information between CAD and GIS platforms – an unparalleled level of integration between data sources that leads to streamlined workflows and automated processes. For Los Angeles International Airport (LAX), x-Spatial needed an efficient and accurate process for capturing and creating as-built models for their GIS of 2 terminals, including the Tom Bradley International Terminal.

*"The Applanix TIMMS (Trimble Indoor Mobile Mapping System) platform was the obvious choice due to its inherent capabilities and the fact that it could perform the scanning process during the day with passengers around,"* according to Ed Maghboul of x-Spatial.

LAX is the fifth busiest airport in the world and second busiest in the United States, offering 692 daily flights to 85 domestic cities and 928 weekly nonstop flights to 67 cities in 34 countries on 59 passenger air carriers. Over 70 million passengers go through LAX every year! The central complex features nine passenger terminals connected by a U-shaped two-level roadway. The critical challenge to scanning LAX: scanning such a very large and busy facility, while people are around, without any degradation in speed and accuracy. TIMMS achieved this.

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The scanning work, performed by Applanix personnel using TIMMS, was completed in under 30 hours over a four-day window, with no interruption of airport operations. The final as-built models, which included all furniture, equipment, booths etc. were produced by a CAD design team in around 100 hours, and delivered to the client's schedule.

TIMMS was designed and built for projects like this. It is the optimal fusion of technologies for capturing spatial data of indoor and other GNSS denied areas. It provides both LiDAR and spherical video, enabling the creation of accurate, real-life representations (maps, models) of interior spaces and all of its contents; every object in the interior space – including desks, chairs, stairs, and doors – appear in the plan. The maps are geo-located, meaning that the real world positions of each area of the building and its contents are known.

"Using the Applanix TIMMS platform for data collection enabled us to scan over 1.8 million sq. ft. in under 30 hours. This process would have taken in excess of 3 weeks using the traditional tripod based interior LiDAR method.

We really enjoyed working with the Applanix team and look forward to future projects."

Ed Maghboul, President, x-Spatial

## ABOUT X-SPATIAL

x-Spatial is staffed by engineers and IT professionals with over 25 years of experience covering not just airport facilities operations but also architecture, engineering and construction (AEC) and software development, implementation and integration.

x-Spatial deliver process reviews and a project delivery plan to help set up your solution, then exceptional support and any additional consultancy you may request.

Our consultants stay familiar with the latest in Geographic Information Systems (GIS), Building Information Modeling (BIM), Computer Aided Design (CAD), database technology and regulatory requirements. This means we deliver exceptional support and training to our clients, airport operators who aim to increase integration between data sources. Better data integration increases the efficiency of your operations and maximizes the effectiveness of your IT systems.

x-Spatial products provide lossless exchange of information between CAD and GIS platforms. This unparalleled level of integration between data sources gives you streamlined workflows and helps automate time consuming processes.

To learn more, visit **www.x-spatial.com**

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