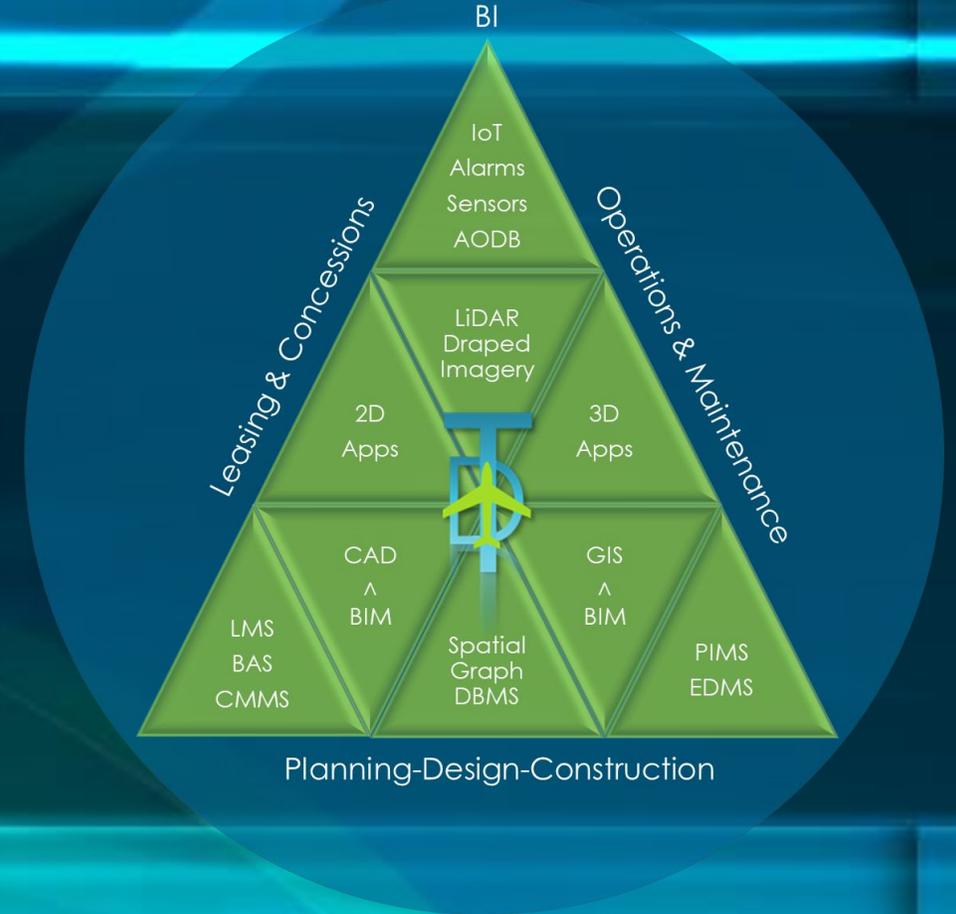


26 JULY 2023

Digital Twin “Data Fusion” Information Integration



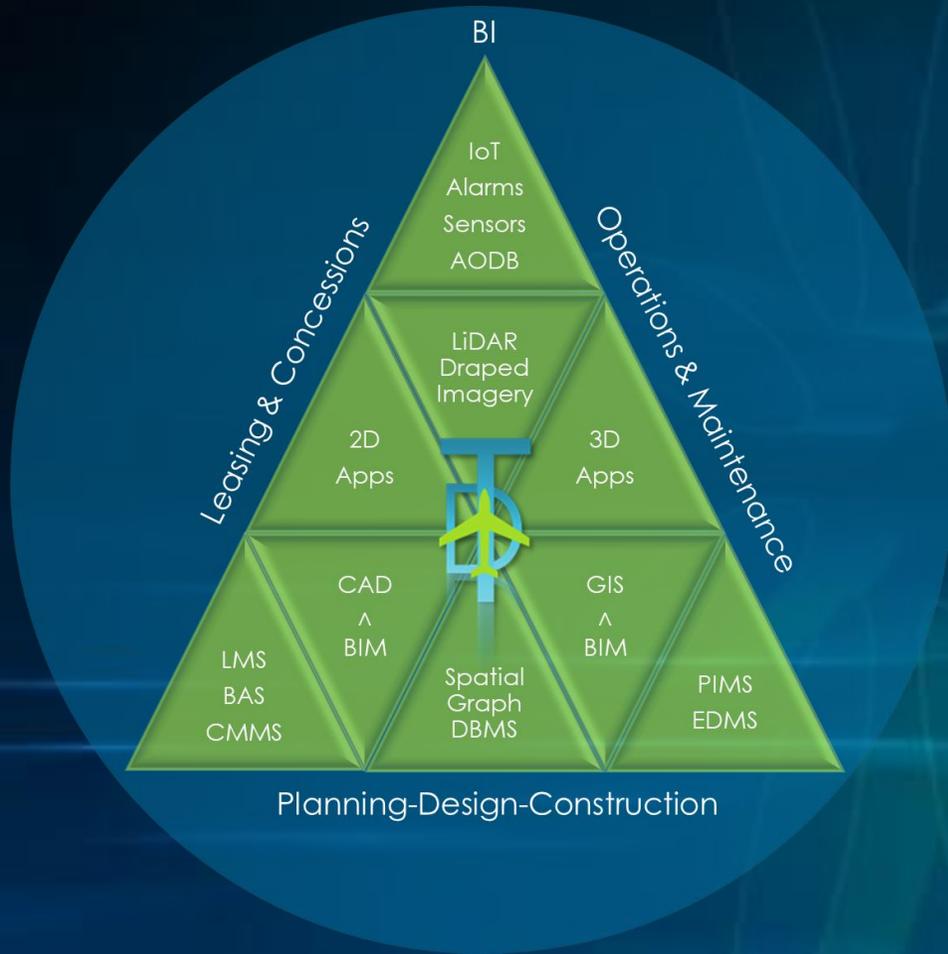
www.AirportDigitalTwin.org Webinar Series

By: David Tamir
Ed Maghoul

AirportDigitalTwin.org Proprietary Information



Webinar Series



1. Jul 19: **BIM Processing**

2. Jul 26: **Information Integration**

3. Aug 2: **Enabling Integrated SMS**

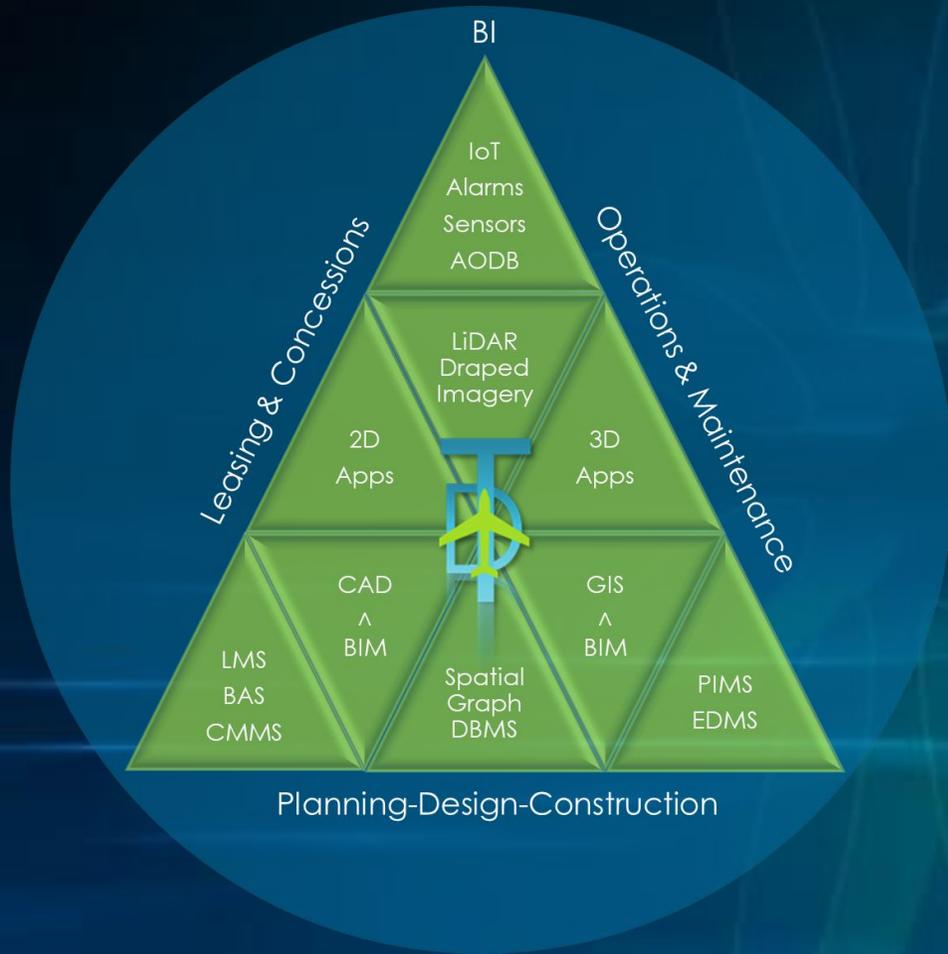
4. Aug 9: **Holistic Business Intelligence**

5. TBD: **Leveraging Video Analytics**

6. TBD: **Predictive Modeling**

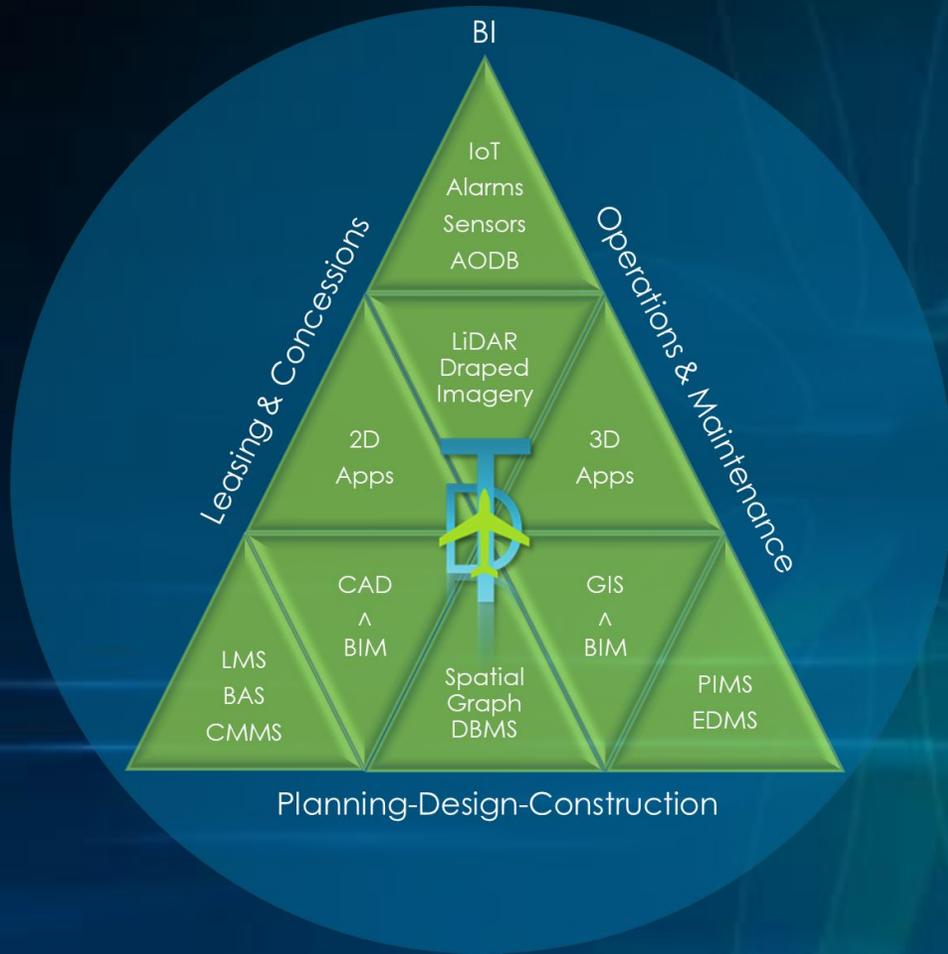
Webinar Outline

2. Jul 26: Information Integration



- ➔ Objective & Introductions
- ➔ Disparate Information Correlation via Spatial Common Denominator
- ➔ Multi-Dimensional Information Association
 - ➔ BIM-CAD-GIS-LiDAR with Draped Imagery
 - ➔ IoT Devices-Sensors-Alarms...
 - ➔ Documents-Files-Photos-Videos...
 - ➔ Process Workflows-Communications-Tasks...
- ➔ Business Intelligence (BI) Rollup

Webinar Outline



2. Jul 26: Information Integration

→ Objective & Introductions

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→ Business Intelligence (BI) Rollup

Objective



Sustainable

Information Integration

via AiRPport Owner's Digital Twin (ARP-DT)

AirportDigitalTwin.org

Team of Integrated Solution Providers Enabling Airport Owner Digital Twins



Lead Team Members

- **Airport Business Process Improvement**
David Tamir **TAMIRONICS**
- **Simplify i3 Platform**
Dr. Prasad Chittaluru **EPIC**
- **AEGIS Platform**
Ed Maghboul **X-SPATIAL**
- **Airport BIM Standards & Compliance**
Jorge Quiroz **PDBM**
- **Airport Data Conversion Automation**
Don Murray **SAFE SOFTWARE**
- **Airport Modeling & Simulation**
Hans Dorries **SIMATRON**



Qualifications



Welcome About Us Q&A Solution Webinars

Our Subject Matter Experts (SMEs)



David Tamir

Brings 4 decades of systems engineering and business process improvement experience from the Space Shuttle Program and over 30 airports; Including airport owner's perspective at Orlando. Founded and led the AAAE Airport Digital Twin Working Group in development of the Digital Twin Roadmap for Airport Owners. Leads this AirportDigitalTwin.org Team helping airport owners succeed.

[Linked-In Profile](#)



Dr. Prasad Chittaluru

Brings 4 decades of experience in infrastructure data management. Awarded a prestigious National Academy of Science Small Business Innovation Research (SBIR) grant to invent and develop Simplify I3. Specializes in infrastructure owner business process improvement through digital twin technologies. Has served airports including at Orlan

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Ed Maghoul

Brings 4 decades of spatial information technology experience including airports at Los Angeles, Boston, San Francisco, Charlotte, and others. Chief architect and developer of the x-Spatial Airport Enterprise Geospatial Information System (AEGIS), achieving industry leading interoperability between Autodesk and Esri for airport enterprise ma

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Dr. Behzad Mohammadi

Brings 4 decades of spatial information technology experience including airports at Los Angeles, Boston, San Francisco, Charlotte, and others. Chief architect and developer of the x-Spatial Airport Enterprise Geospatial Information System (AEGIS), achieving industry leading interoperability between Autodesk and Esri for airport enterprise management.

[Linked-In Profile](#)



Dr. Ali Diba

Brings 3 decades of experience implementing Esri's technologies with many awards and recognitions. His expertise are especially key to airport digital twins by leveraging Esri's Business Intelligence (BI) analytics solutions for correlating various disparate information over the spatial common denominator. He is x-Spatial's Esri techn

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[Linked-In Profile](#)



John White

Brings 3 decades of experience in effective infrastructure project and full lifecycle data management. Has proven airport owner consulting experience leveraging x-Spatial's solutions at Los Angeles, Boston, and Charlotte. Has developed best practices for sustaining airport terminal LIDAR sc

[+ Show More](#)

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Jorge Quiroz

Brings over 2 decades of experience in helping multiple domestic and international airports adopt BIM as a tool for design and construction, so the data captured during these phases can be leveraged to feed airport enterprise asset management system, including Digital Twin. Jorge served as the BIM Director on the airport owner's side for

[+ Show More](#)



Don Murray

Brings 4 decades of data processing automation experience. Co-founder of Safe Software, the inventors of the data Feature Manipulation Engine (FME) -- an industry leader for data integration middleware used in the AEC, airports, and other industries.

[Linked-In Profile](#)



Hans Dorries

Brings over 2 decades of experience converging on airport business process modeling and simulation, which are keys to achieving predictive analytics via digital twins. Leads Simatron Solutions, leveraging state of the art modeling and simulation tools and methods.

[Linked-In Profile](#)



Suresh Sanka

Brings over 2 decades of progressive experience in digital twin technology development including applications for airports at Orlando, Harlingen, Buckeye, and Boca Raton. Leads the Simplify I3 product development. Brings hands-on experience in web, mobile, cloud, and standalone applications leveraging .NET, Java, low code platforms, and databases such as SQL Server, Oracle, and PostgreSQL.

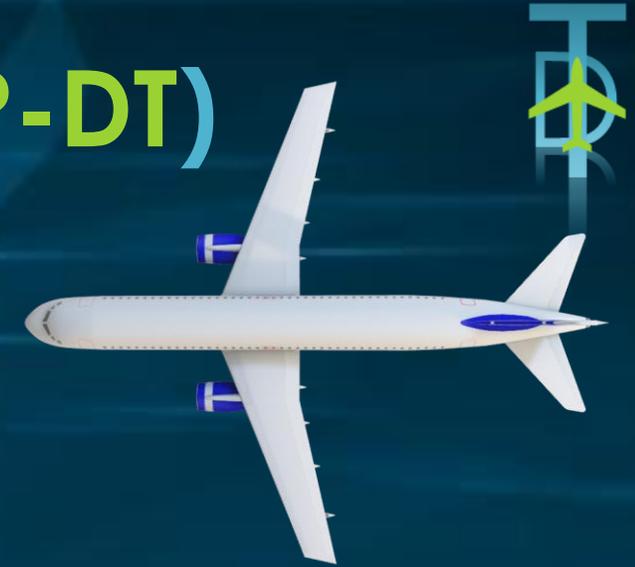
[Linked-In Profile](#)



www.AirportDigitalTwin.org

What's an **AiRPort Digital Twin (ARP-DT)**

Digital representation of airport campus



- **integrating data** from disparate systems / sources
- to enable **safe, secure,** and **efficient** airport functions
- with **past, present,** and **predicted** views

Airport Digital Twin Information Integration



iPro Project Controls Dashboard

Program Sub Category: [Select] | Fiscal Year: [Select]

Projects By Status

Status	Count
Pending StartUp	100
In Design	100
Outbid/Award	50
Construction	50
In CloseOut	50

Projects By Programs

Program	Count
Facilities Improv. South Terminal	1800
Capital Projects Capital Project	1000
Capital Project	500

Projects By Vendors

Vendor	Count
R.L. Burns, Inc.	1000
Prime Co.	500
Genex Construction Co.	500

Projects Table

Project No	Description	Contractor
V-00194-MCO	AIRSIDE 4 MICROWAVE/CELLS CSP CHANGES	Genex Construction Company
V-00191-MCO	PHATT FCU PANEL RELOCATIONS ON 8TH AND 9TH FLOORS	Genex Construction Company
V-00194-MCO	AIRSIDE 4 GATE DOOR UPGRADES	H.W. Davis Construction, Inc.
V-00802-MCO	ATRIUM LOBBY LIGHT POLE AND BASE REFINISHING	H.W. Davis Construction, Inc.
ZC-00118-MCO	SOUTH APRM PROGRAM	NONE

LAWA Spatial Admin

Layers: Buildings, Boundaries, Property Right, Transportation, Land Use, etc.

Location Code	Sector Name	Sector Code	Zoning	Actual Area	Detail Link
LAV0006PM	APN Area	PM	NON-APPROBATOR	13,517,434.00	2018/02/12 12:07:15
LAV0007CA	CENTRAL TERMINAL AREA	CT	TERMINAL	7,503,987.00	2018/02/08 09:40:12
LAV0006PM	APN Maintenance	MT	MAINTENANCE	980,219.00	2018/09/28 14:43:12
LAV0006PM	APN	APN	APN	1,308,606.00	2018/02/12 12:07:15

X-SPATIAL

Leaders in airport information management

Map Position: [Coordinates]

Layers: [List of layers]

Map Tools: [Navigation tools]

Project Start Date

Today | Next 7 Days | Next 30 Days | Next 60 days | Next 90 days | Next 120 days | Next 365

9/1/2021 | Select End Date | Generate Report

Project Status

Planned x | Active x | Complete

November 2021

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

Layers

- All
- Filtered
- Calgary International Airport
- Projects
 - APO - Airport OPS Project
 - CIP - Tenant Project
 - FAC - Facilities Project
 - GLC - Capital Project
 - GWO - Groundside Maintenance Pr
 - IOC Project
 - MWO - Airside Maintenance Project
- Work Orders
- BaseLayer
- YYC CAD

3D Model Viewer

Views: [List of views]

Sheets: [List of sheets]

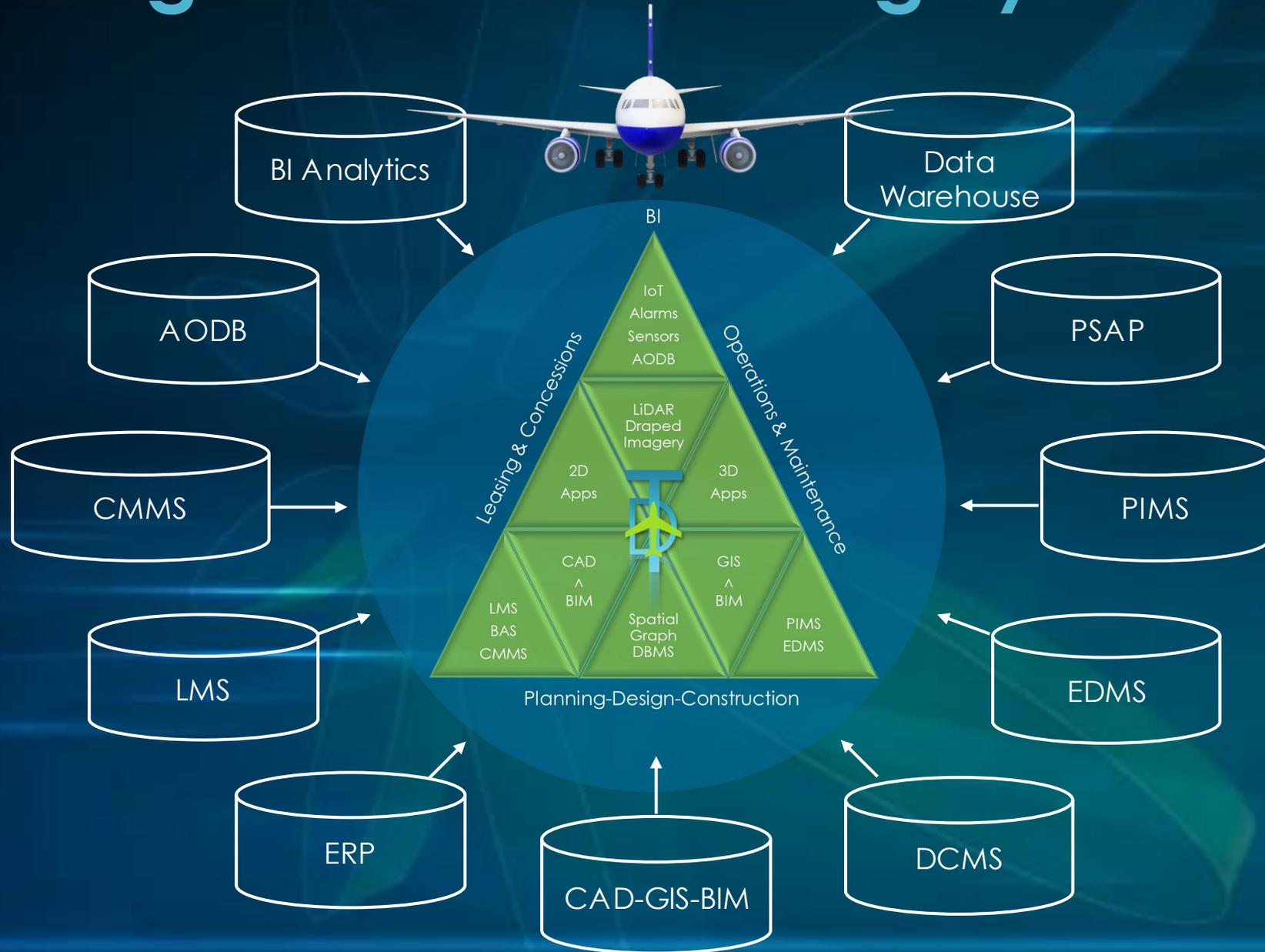
Views: [List of views]

Sheets: [List of sheets]

Views: [List of views]

Sheets: [List of sheets]

Integrating Data from Existing Systems



Primary Platform Components



Your Work, Simplified.®

X·SPATIAL

P D B M

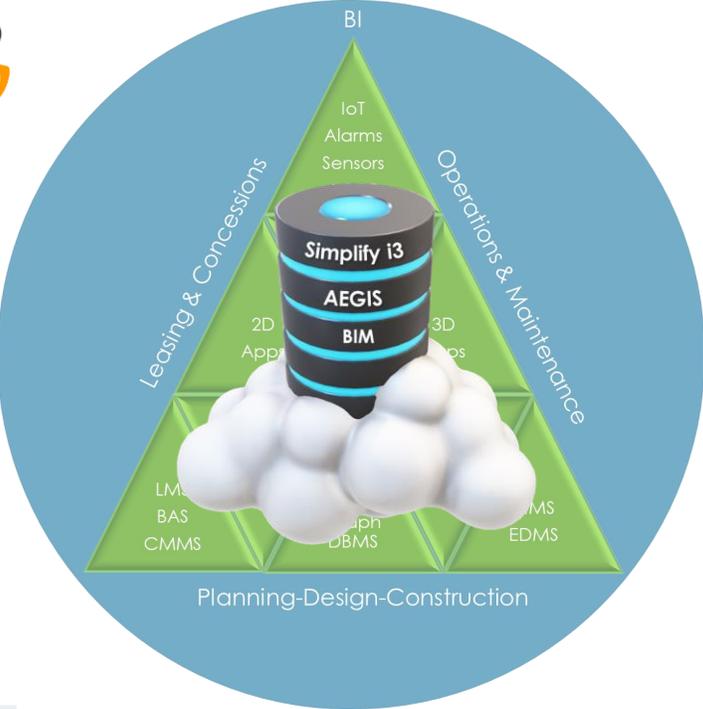


- Simplify **i3** (integrated **i**nfrastructure **i**ntelligence)
- **A**irport **E**nterprise **G**eospatial **I**nformation **S**ystem (**AEGIS**)
- **B**uilding **I**nformation **M**odeling (**BIM**)

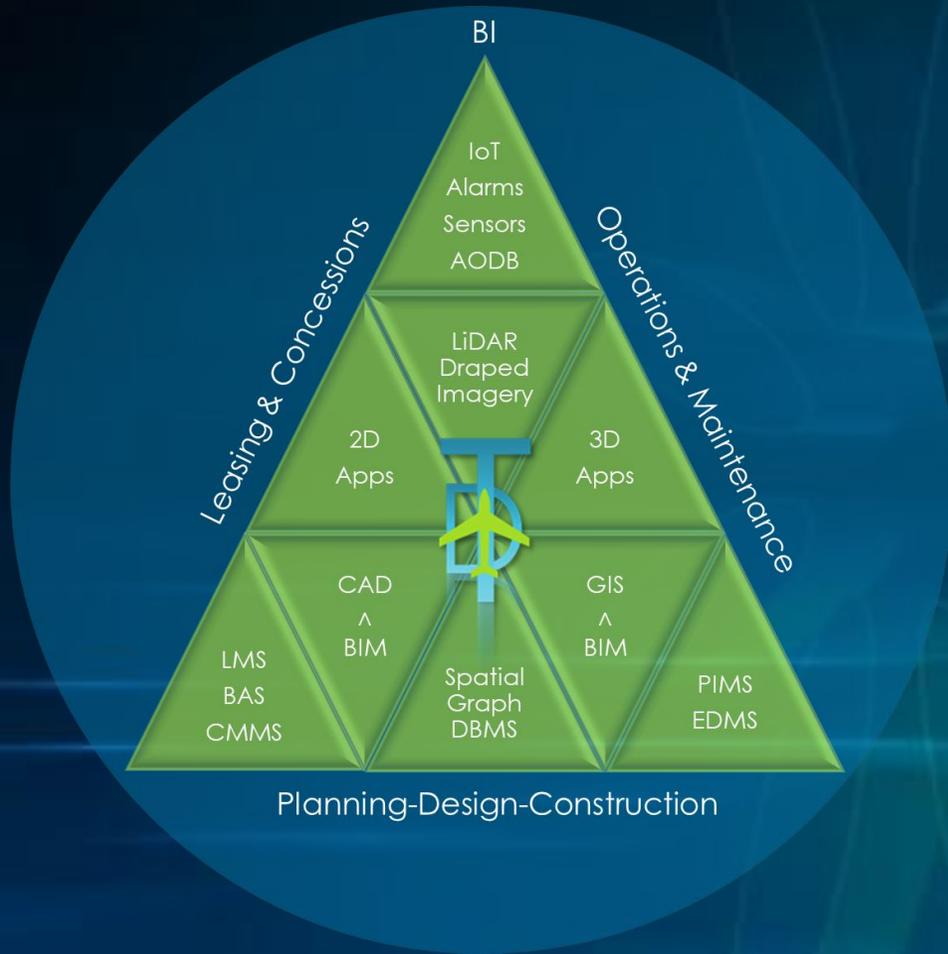
Leveraging Best of Breed Technologies



amadeus IntellAct



Webinar Outline



2. Jul 26: Information Integration

→ Objective & Introductions

→ Disparate Information Correlation via Spatial Common Denominator

→ Multi-Dimensional Information Association

→ BIM-CAD-GIS-LiDAR with Draped Imagery

→ IoT Devices-Sensors-Alarms...

→ Documents-Files-Photos-Videos...

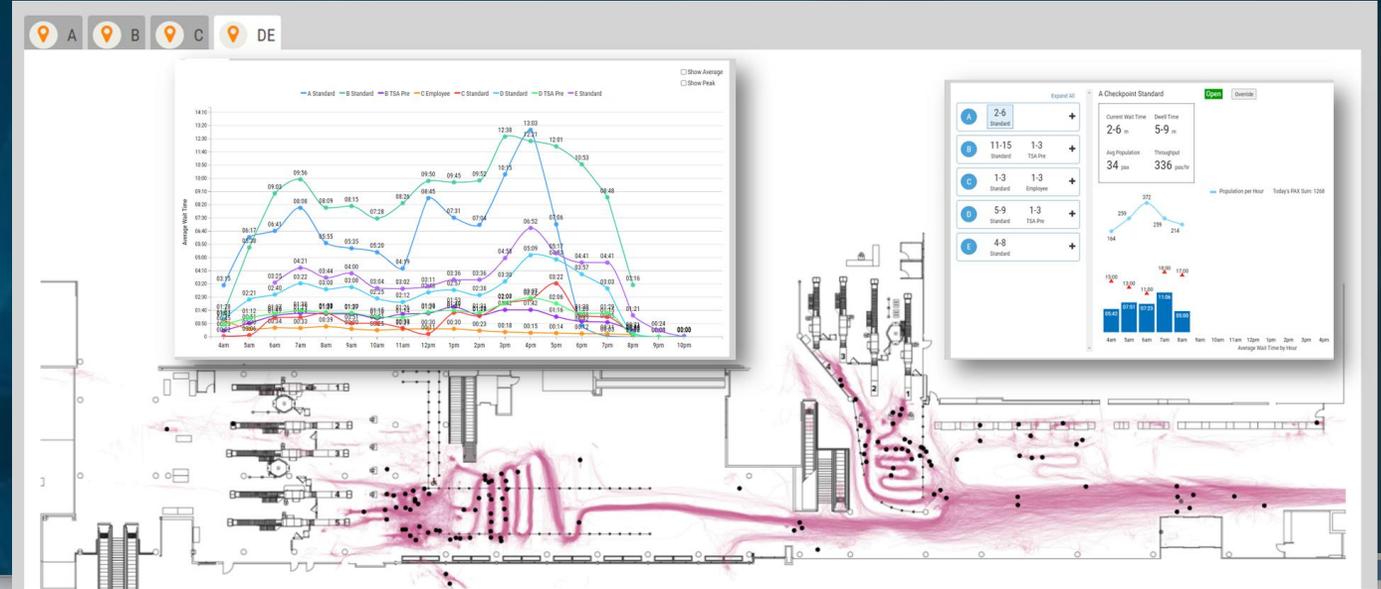
→ Process Workflows-Communications-Tasks...

→ Business Intelligence (BI) Rollup

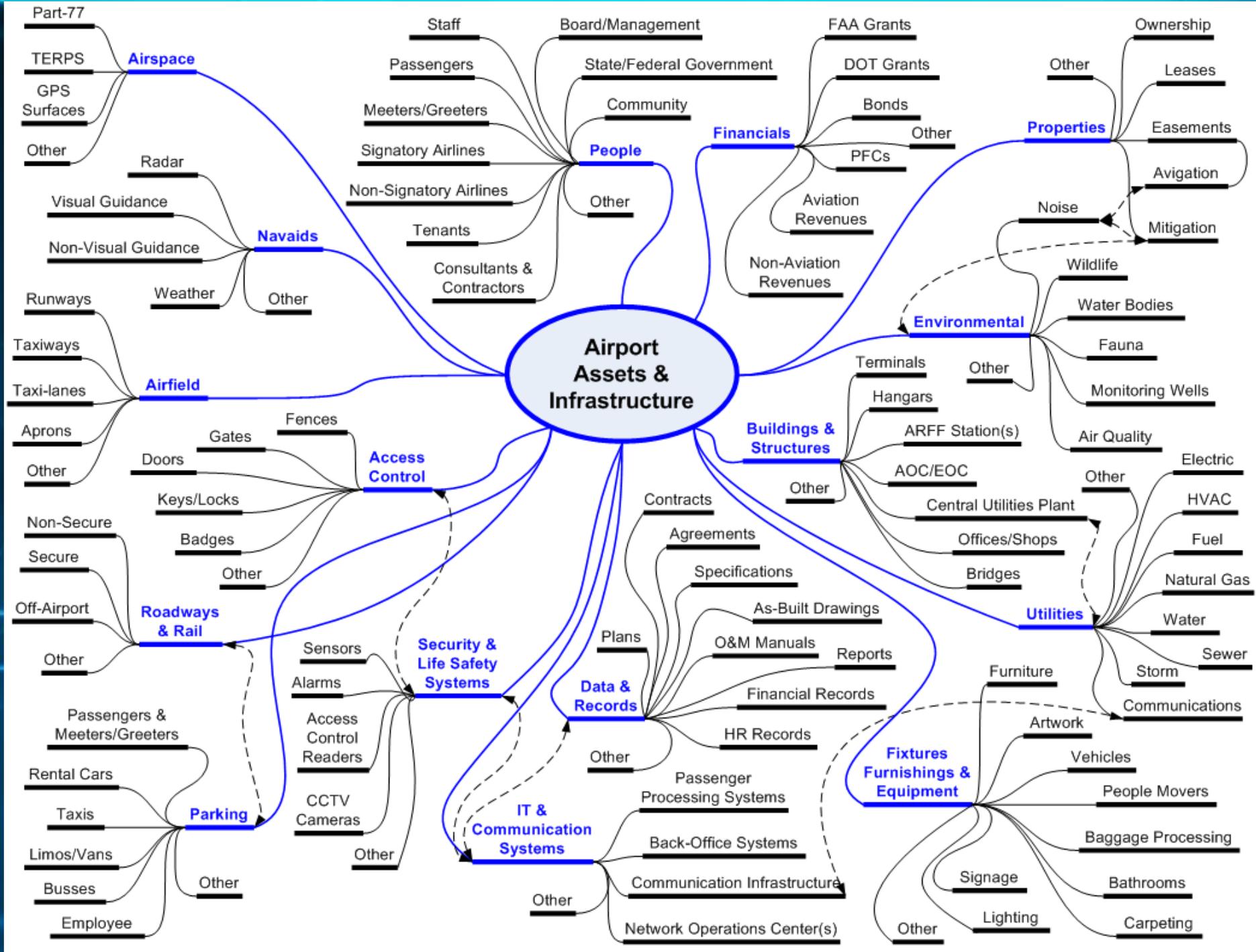
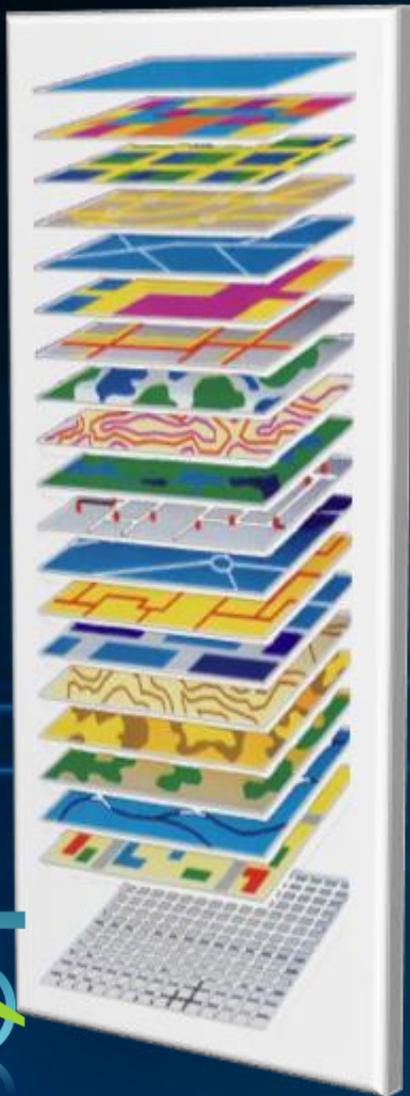
Examples Requiring Correlation via ARP-DT



- PAX Movements Analytics
- Building Sensors Analytics
- CCTV Imagery Analytics



Data Fusion



Leveraging Common Denominator to Integrate Information for BI



A + B + C + D + ...

X + Y + Z
(SPATIAL)

=
=

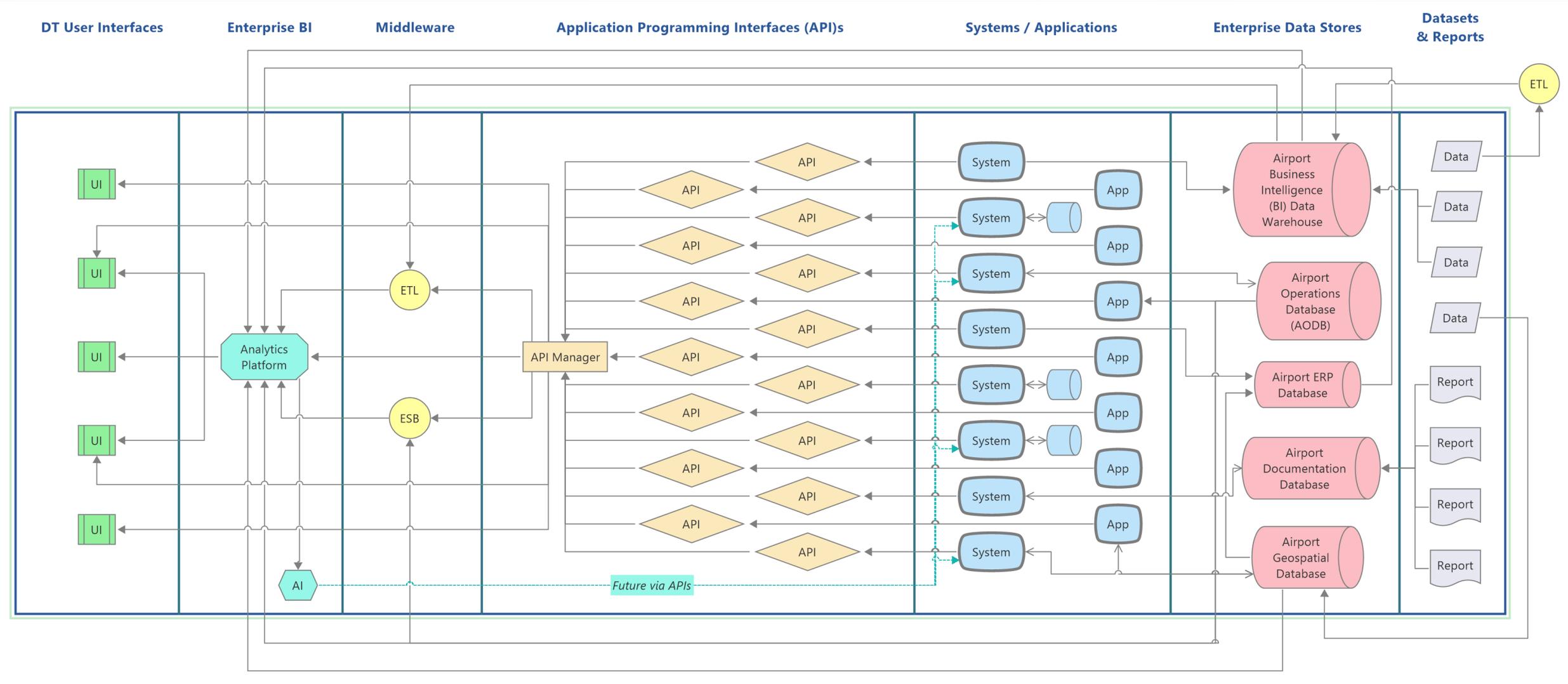
DATA
FUSION

Examples of ARP-DT Data Fusion Needs



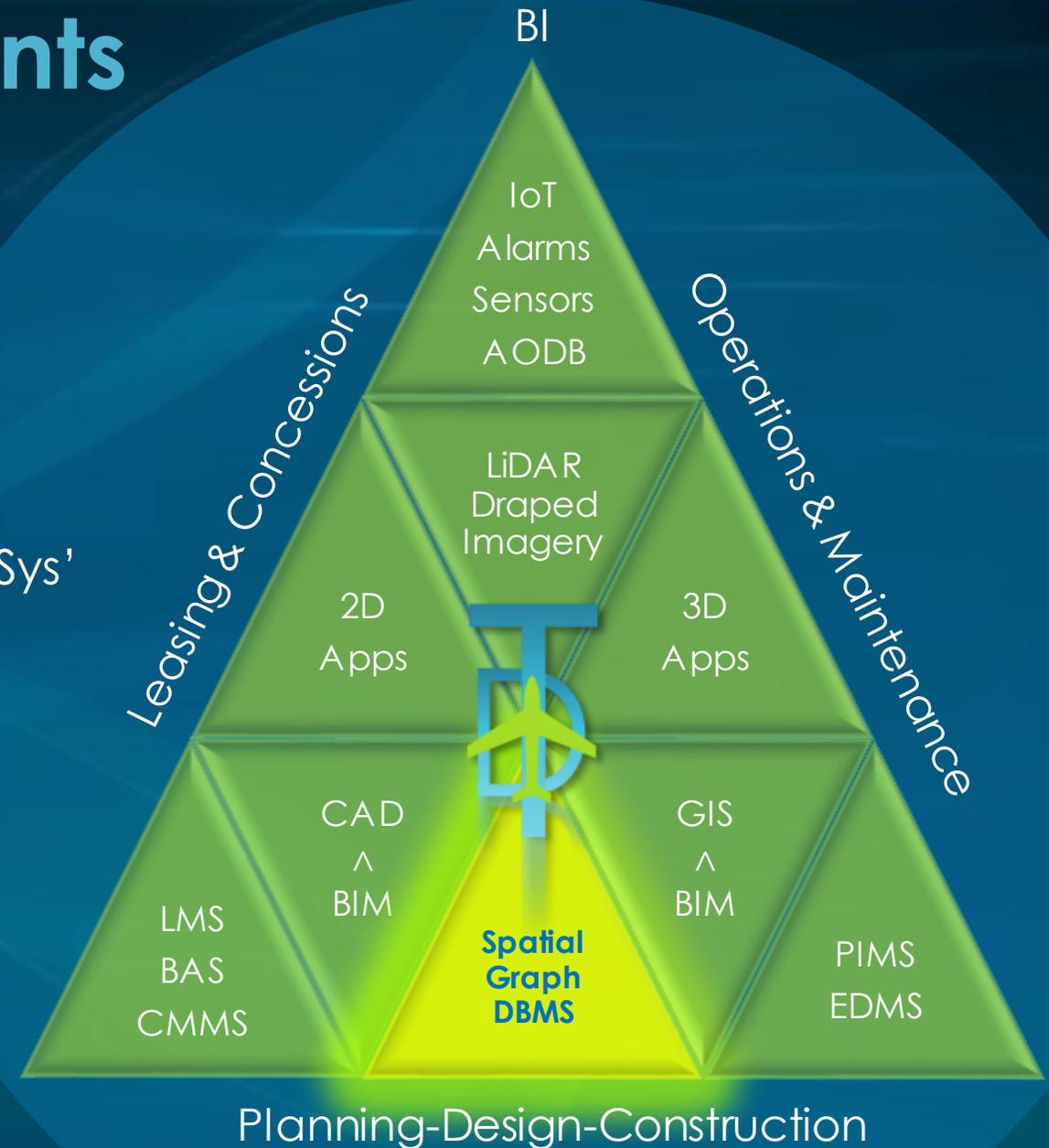
- ALP & Floor Plans
- 3D LiDAR with Draped Imagery
Outdoors & Indoors
- Airspace / AOA Traffic & NOTAMS
- Aircraft Gate Turn-Around Status
- On-Airport Roadways / Curbs
- Parking Garages / Lots Status
- People Movers Status
- Elevators / Escalators Status
- Ticket Counters Status
- Security Checkpoints Status
- PAX Congestion / Queues
- Bathrooms Status
- Alarms / Sensors / CCTV
- Incidents / Complaints
- Inspections / Issues / Weather
- Projects, Work Orders, Outages...

ARP-DT Open System Architecture



Airport ARP-DT Components

- **AODB** – Airport Operations Database
- **BAS** – Building Automation System
- **BI** – Business Intelligence
- **BIM** – Building Information Modeling
- **CAD** – Computer Aided Design
- **CMMS** – Computerized Maintenance Mgm't Sys'
- **DBMS** – Database Mgm't Systems
- **EDMS** – Electronic Doc's Mgm't System
- **GIS** – Geospatial Information System
- **IoT** – Internet of Things
- **LiDAR** – Light Detection and Ranging
- **LMS** – Lease Management System
- **PIMS** – Project Info' Mgm't System



Simplify i3®

User Interfaces



Geospatial Processing



Sensors & Analytics



Spatial Updates

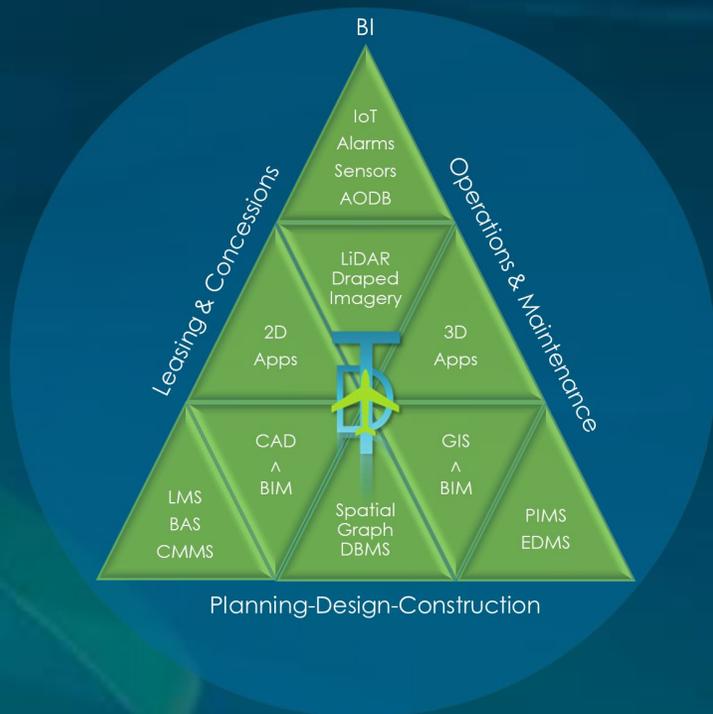


Spatial DBMS



X·SPATIAL

Technology Stack



Spatial DBMS Interoperability

X·SPATIAL



x-Spatial Apps



Web & Mobile
User Interfaces



AutoCAD Map

Revit / Tekla

ArcGIS Pro

“Glue” between



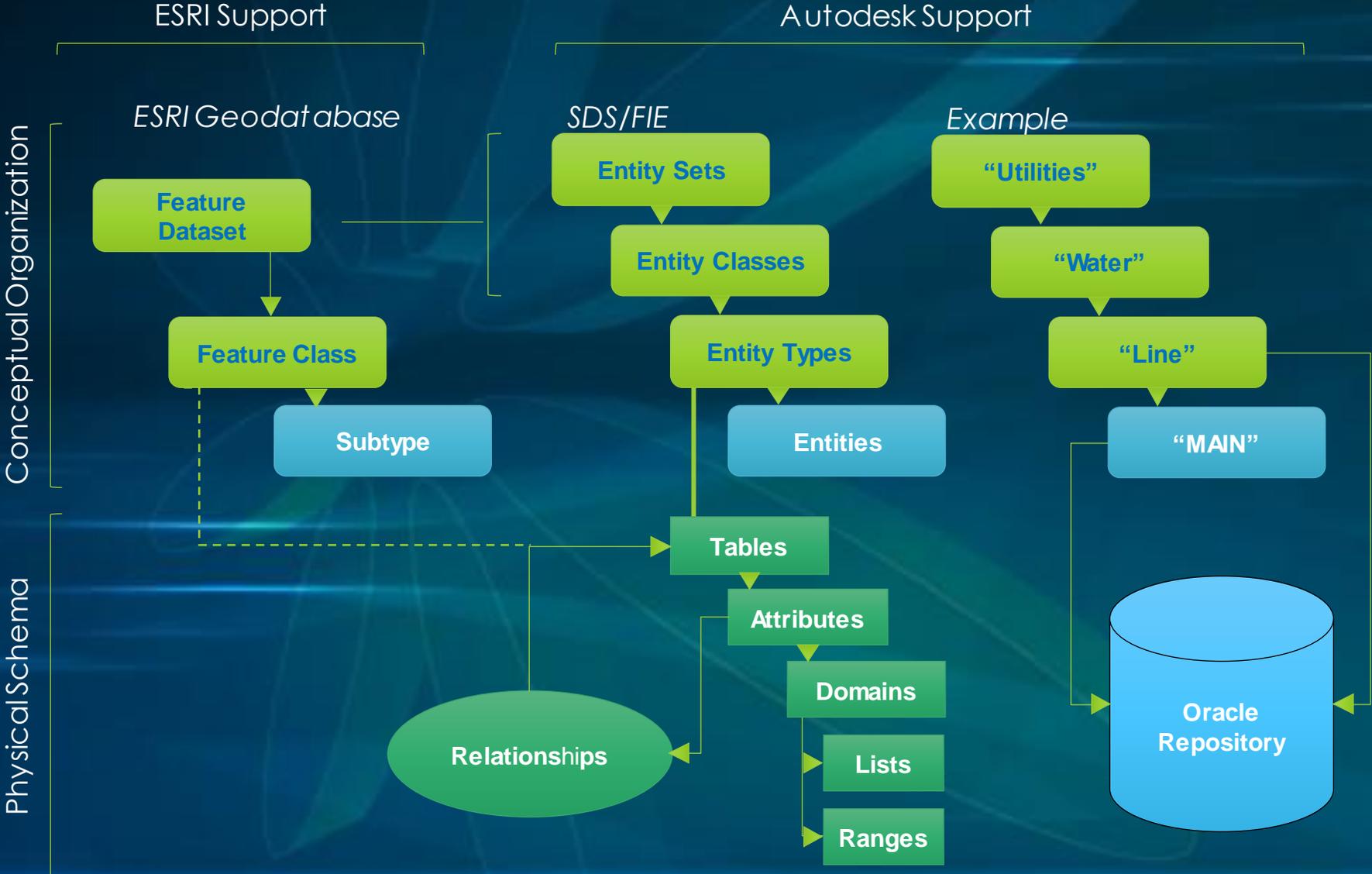
Auto-Export of
Standardized
CAD-GIS Files
(e.g., NCS, ANSI)



Seamless Export of Geodatabase
Supporting 3rd Party Products & Apps

- ArcGIS Portal / Online
- ArcGIS Dashboards
- Maximo / Infor / Cityworks
- Simplify i3
- etc...

Spatial Data Architecture



Interoperable Data Structure

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Layers

- Base Map
- Properties
- Aerial
- Buildings
- As-Built Projects
- Utilities
- Soil
- Auto Parking
- Outdoor Advertising

SDSFIE:
Set=Utility
Class=Storm System
Type=Line
Entity=As-built Main
Massport CAD Layer=ASB-SDR-LINE-L

ESRI Geodatabase:
Dataset=Utilities-Storm System
Class=Line
Sub-Type=As-built Main

FAA Standard
FAA A/C 5300-18b:
Group Name=Utilities
Class Name=Utility Line
FAA CAD Layer= V-STRM-MAIN-

Datalink ID: 6345
Entity Type Name: storm_sewer_line
Primary Key Identifier: BIF-L0095
Outfall Name: Bird Island Flats
Size Code: 12
Project:

Terminal A (Pedestrian Turn)
FH-16
Terminal A (Satellite) - Bldg 32
FH-17
Gate: A17
Delta Air Lines, Inc.
FH-18

X: 784451.481833, Y: 2957456.614445 (FOOT)
1 Storm Sewer Line selected
1: 585.28
667.08 x 309.41 (ft)
Kelar Microwizard
125%

Utilities Data via Autodesk

X·SPATIAL



The screenshot displays the Autodesk AutoCAD Map 3D 2014 interface. The main window shows a 3D map of a utility network with various colored lines and points. An 'Entity Attribute' window is open on the left, displaying metadata for a selected feature. A 'Schema: SDSFEATURES' legend is overlaid on the map, listing various utility types with corresponding symbols. The right side of the interface contains several toolbars and panels, including 'Task Pane', 'Display Manager', 'Map Explorer', 'Map Book', 'Survey', 'Design', and 'Properties'. The 'Properties' panel shows settings for the selected object, such as color, layer, linetype, and 3D visualization options.

Entity Attribute Window:

Property	Value
Location	LAX
Created By	axmelikyan
Date Created	2008/11/06@15:12:42
Last Edited By	axmelikyan
Date Last Edited	2008/11/07@13:53:15
Reason Code	
Quality Level	
Ddms Source	0026514
Qa Status	1 - GEOMETRY ONLY
Owner Operator	
Leaseholder Name	
Comment	1982/09/08
Disposition	
Is Published	Y

Schema: SDSFEATURES Legend:

Symbol	Feature Name
Red cross	DOMESTIC_FIRE
Yellow circle	EMERG_CONN_LINE
Yellow circle	EMERG_CONN_VALVE
Yellow circle	FAUCET
Yellow circle	FIRE
Yellow circle	FIRE_CONNECT
Red circle	FIRE_HYDRANT
Yellow circle	FIRE_PROP
Yellow circle	FIRE_REMV
Yellow circle	FITTING
Yellow circle	GATE
Yellow circle	GLOBE
Yellow circle	HYDRANT
Yellow circle	IRR_CONTROL_BOX

Same Data via Esri



The screenshot displays the ArcMap interface for a project named 'LAX_Water_Storm_Fuel.mxd'. The main map area shows a complex network of colored lines representing different utility systems. The Table of Contents on the left lists several layers, including 'Fuel System', 'Storm System', 'Water System', and various point and line features like 'LAX.water_meter_point', 'LAX.water_pump_point', and 'LAX.water_line'. The Catalog window on the right shows a hierarchical tree structure of the data, including folders for 'LAX.sde', 'LAX.Terminal_1', 'LAX.Terminal_3', and 'LAX.utilities_fuel_system'. The Identify window on the far right shows the metadata for a selected feature, including fields like 'DATALINK', 'AS_ENTITY_SET_NAME', 'AS_ENTITY_CLASS_NAME', 'AS_ENTITY_TYPE_NAME', 'AS_DISCRIMINATOR_VALUE', 'AS_GENERAL_LOCATION', 'AS_FACILITY', 'AS_OWNER_OPERATOR', 'AS_CONTACT_INFO', 'AS_DISPOSITION', 'AS_PUBLISHED', 'AS_MOBILEID', 'AS_COMMENT', 'DATE_ACQRD', 'DATE_INSTALLED', 'DISPOSTN_D', 'TYPE_D', 'MAT_D', 'SIZE_D', 'PIPE_LGTH', 'INV_ELV_1', 'SLOPE_BOT', 'NAME', 'DESCRIPTION', 'STATUS', 'UTILITYTYPE', 'DIRECTIONALITY', 'USERFLAG', 'ALTERNATIVE', 'NARRATIVE', 'USER_FLAG', 'AS_SDS_TABLE_NAME', 'AS_CREATED_BY', 'AS_CREATED_DATE', 'AS_LAST_EDITED_BY', and 'AS_DATE_LAST_EDITED'. The location of the feature is given as 6,437,068.276 1,801,449.452 Feet.

Field	Value
DATALINK	5246099
AS_ENTITY_SET_NAME	utilities
AS_ENTITY_CLASS_NAME	utilities_water_system
AS_ENTITY_TYPE_NAME	water_line_PROPOSED
AS_DISCRIMINATOR_VALUE	FIRE_PROP
AS_GENERAL_LOCATION	<null>
AS_FACILITY	<null>
AS_OWNER_OPERATOR	<null>
AS_CONTACT_INFO	<null>
AS_DISPOSITION	<null>
AS_PUBLISHED	N
AS_MOBILEID	<null>
AS_COMMENT	Concourse Construction Package
DATE_ACQRD	<null>
DATE_INSTALLED	<null>
DISPOSTN_D	<null>
TYPE_D	<null>
MAT_D	ductile iron
SIZE_D	24 Inch (24.0 inches)
PIPE_LGTH	<null>
INV_ELV_1	<null>
SLOPE_BOT	<null>
NAME	<null>
DESCRIPTION	<null>
STATUS	<null>
UTILITYTYPE	<null>
DIRECTIONALITY	<null>
USERFLAG	<null>
ALTERNATIVE	<null>
NARRATIVE	<null>
USER_FLAG	<null>
AS_SDS_TABLE_NAME	utwatpip
AS_CREATED_BY	axmelkyan
AS_CREATED_DATE	2010/05/19@19:17:08
AS_LAST_EDITED_BY	axmelkyan
AS_DATE_LAST_EDITED	2010/05/25@16:10:10

Same Data via AEGIS Web UI

X·SPATIAL



The screenshot displays the AEGIS Web UI interface. On the left is a 'Layers' panel with a tree view of GIS data layers. The main area is a map showing a complex network of utility lines in blue, green, and cyan, with various points marked in red and orange. On the right, an 'Entity Attribute' form is open, displaying details for a selected 'water_line' feature.

Entity Attribute - Windows Internet Explorer
https://gis2.x-spatial.com/UMS/cfscripts/Forms/EntityType_Edit

1232611, utilities, utilities_water_system, water_line, FIRE, utwatpip

Location	LAX
Created By	dfinley
Date Created	2007/12/19@09:13:38
Last Edited By	dfinley
Date Last Edited	2008/01/24@11:25:58
Reason Code	
Quality Level	
Ddms Source	0030550
Qa Status	1 - GEOMETRY ONLY
Owner	
Operator	
Leaseholder Name	
Comment	6"; STEEL PIPE
Disposition	
Is Published	Y

Attributes | Documents (0)

Acquired Date	
Install Date	
Type Code	CIRCULAR
Material Composition Code	STEEL
Size Code	6
Length	
Dimension	
Average Top Of Pipe	
Slope	
Disposition Code	IN_SERVICE
Name (FAA)	
Description (FAA)	
Status (FAA)	
Utilitytype (FAA)	
Directionality (FAA)	
Userflag (FAA)	
Alternative (FAA)	
Narrative	

X: 6439019.671943, Y: 1802279.977390 (FOOT) | 1 water_line selected | 1: 5000.00 | 5190.97 x 2942.71 (ft) | Kelar Microwizard

Room Data via AutoCAD

X·SPATIAL



Feature Properties	
FeatId	9010718
ACTUAL_ROOMNO	<Null>
AREA	974.0000
AS_PUBLISHED	Y
A_CREATED_BY	BEHZAD
A_CREATED_DATE	2012/08/08@20:55:06
A_FLOOR_ID	1862
A_GROUPNAME	20100001A-08
A_LOC_ID	LAX000CTA00T103080021
A_PROPERTYTYPE	ROOM
A_UPDATED_BY	BEHZAD
A_UPDATE_DATE	2012/08/08@20:55:06
BEYONDSECURITY	1
CLEAN_RESPONSDISC	<Null>
CLEAN_RESPONSID	<Null>
EXCLUDEDAREA	0
FLOORID	1862
FLOORTYPEDESCR	<Null>
FLOORTYPEID	<Null>
LOC_ID	LAX000CTA00T103080021
NOTES	<Null>
PROP_ORIGIN	<Null>
PROP_ORIGINDESC	<Null>
RECAREA	808.0000
ROOMDESCRIPTION	Food and Beverage
ROOMID	54760
ROOMNO	21
ROOMRENTABLE	<Null>
ROOMTYPEDESCR	Concessions
ROOMTYPEID	34
STATUS	<Null>
TOOLTIP	Rm# 21 = 974sf\nConcessio...

Field	Value
FEATID	9010718
A_CREATED_BY	BEHZAD
A_CREATED_DATE	2012/08/08@20:55:06
A_FLOOR_ID	1862
A_GROUPNAME	20100001A-08
A_LOC_ID	LAX000CTA00T103080021
A_PROPERTYTYPE	ROOM
A_UPDATE_DATE	2012/08/08@20:55:06
A_UPDATED_BY	BEHZAD
AS_PUBLISHED	Y
PROPERTYID	42741
FLOORID	1862
AREA	974
EXCLUDEDAREA	0
ROOMID	54760
LOC_ID	LAX000CTA00T103080021
ROOMNO	21
USE	Concessions
TYPE	Retail
ROOMDESCRIPTION	Food and Beverage
STATUS	<null>
RECAREA	808
BEYONDSECURITY	1
CLEAN_RESPONSID	<null>
ACTUAL_ROOMNO	<null>
CLEAN_RESPONSDISC	<null>
PROP_ORIGINDESC	<null>
SPACEFUNCTIONDESC	Concessions
SPACESUBFUNCTIONDESC	<null>
BILL	<null>
BILLQTY	2156
COMMENCEMENTDATE	<null>
CONTRACTID	856
RENTCOMMENCEMENTDATE	<null>
SPACEID	67846
SPACENO	0001

Same Data via ArcMap

X·SPATIAL



LAX_Terminal_1.mxd - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

1:1.535

Network Analyst

Editor

Table Of Contents

- Layers
- Mezzanine
 - LAX.MEZZANINE_FLOORPLAN
 - MLE
 - LAX.T1_MEZZANINE_TENANT
 - LAX.T1_MEZZANINE_ROOMS
 - <all other values>
 - USE
 - Boarding
 - Concessions
 - Custodial
 - Equipment
 - Maintenance
 - Miscellaneous
 - Safety
 - Security
 - Service
 - Ticketing
 - Utilities - Communications
 - Utilities - Electrical
 - Utilities - Mechanical
- Second Level
 - LAX.SECOND_LEVEL_FLOORPLAN
 - <all other values>
 - A_CADLAYER
 - A-ANNO-NOTE
 - A-ANNO-TEXT
 - A-BAGS-CONV
 - A-BAGS-CRSL
 - A-DOOR
 - A-DOOR-OVHD
 - A-DOOR-SLDG
 - A-EQPM
 - A-EQPM-FIDS
 - A-EQPM-SECU

Catalog

Location: Toolboxes

- LAX.sde
 - LAX.Annotation_T1
 - LAX.Terminal_1
 - LAX.MEZZANINE_FLOORPLAN
 - LAX.SECOND_LEVEL_FLOORPLAN
 - LAX.Terminal_1_Rooms
 - LAX.T1_MEZZANINE_ROOMS
 - LAX.T1_MEZZANINE_TENANTS
 - LAX.T1_SECOND_LEVEL_ROOMS
 - LAX.T1_SECOND_LEVEL_TENANTS
 - LAX.Terminal_3
 - LAX.Terminal_3_Room
 - LAX.Terminal_3_Tenant
 - LAX.Terminal_3X
 - LAX.utilities_fuel_system
 - LAX.fuel_air_eliminator_point
 - LAX.fuel_filter_strainer_point
 - LAX.fuel_fitting_point
 - LAX.fuel_hydrant_point
 - LAX.fuel_junction_site
 - LAX.fuel_line
 - LAX.fuel_meter_point
 - LAX.fuel_oil_water_separator_point
 - LAX.fuel_pump_point
 - LAX.fuel_regulator_reducer_point
 - LAX.fuel_source_point
 - LAX.fuel_tank_site
 - LAX.fuel_valve_point
 - LAX.utilities_storm_system
 - LAX.storm_culvert_site
 - LAX.storm_sewer_discharge_point
 - LAX.storm_sewer_fitting_point
 - LAX.storm_sewer_headwall_point
 - LAX.storm_sewer_inlet_point
 - LAX.storm_sewer_junction_point
 - LAX.storm_sewer_line
 - LAX.storm_sewer_line_PROPOSED
 - LAX.storm sewer oil water sep st

6439835.388 1803672.431 Feet

Identify

Identify from: <Top-most layer>

LAX.T1_MEZZANINE_TENANTS

21 Concessions RetailFood and Beverage null Camacho's Incorpor

Location: 6,440,035.318 1,803,293.896 Feet

Field	Value
FEATID	9010718
A_CREATED_BY	BEHZAD
A_CREATED_DATE	2012/08/08@20:55:06
A_FLOOR_ID	1862
A_GROUPNAME	20100001A-08
A_LOC_ID	LAX000CTA00T103080021
A_PROPERTYTYPE	ROOM
A_UPDATE_DATE	2012/08/08@20:55:06
A_UPDATED_BY	BEHZAD
AS_PUBLISHED	Y
PROPERTYID	42741
FLOORID	1862
AREA	974
EXCLUDEDAREA	0
ROOMID	54760
LOC_ID	LAX000CTA00T103080021
ROOMNO	21
USE	Concessions
TYPE	Retail
ROOMDESCRIPTION	Food and Beverage
STATUS	<null>
RECAREA	808
BEYONDSECURITY	1
CLEAN_RESPONSID	<null>
ACTUAL_ROOMNO	<null>
CLEAN_RESPONDESC	<null>
PROP_ORIGINDESC	<null>
SPACEFUNCTIONDESC	Concessions
SPACESUBFUNCTIONDESC	<null>
BILL	<null>
BILLQTY	2156
COMMENCEMENTDATE	<null>
CONTRACTID	856
RENTCOMMENCEMENTDATE	<null>
SPACEID	67846
SPACENO	0001

Identified 1 feature

Same Data via ArcGIS On-Line

X·SPATIAL



ArcGIS My Map

New Map My Content Help Sign In

Details Add Basemap Save Share Print Measure Bookmarks

Contents

- LAX Terminal 1
 - Mezzanine
 - LAX.MEZZANINE_FLOORPLAN
 - MLE
 - LAX.T1_MEZZANINE_TENA
 - LAX.T1_MEZZANINE_ROOI
 - Boarding
 - Concessions
 - Custodial
 - Equipment
 - Maintenance
 - Miscellaneous
 - Safety
 - Security
 - Service
 - Ticketing
 - Utilities - Communications
 - Utilities - Electrical
 - Utilities - Mechanical
 - Second Level
 - LAX.SECOND_LEVEL_FLOORPL
 - MLE

0 100 200ft

State of California, County of Los Angeles, NHD, Esri, DeLorme, NAVTEQ, USGS, U. **esri** POWERED BY

125%

Same Data via AEGIS Web UI

X·SPATIAL



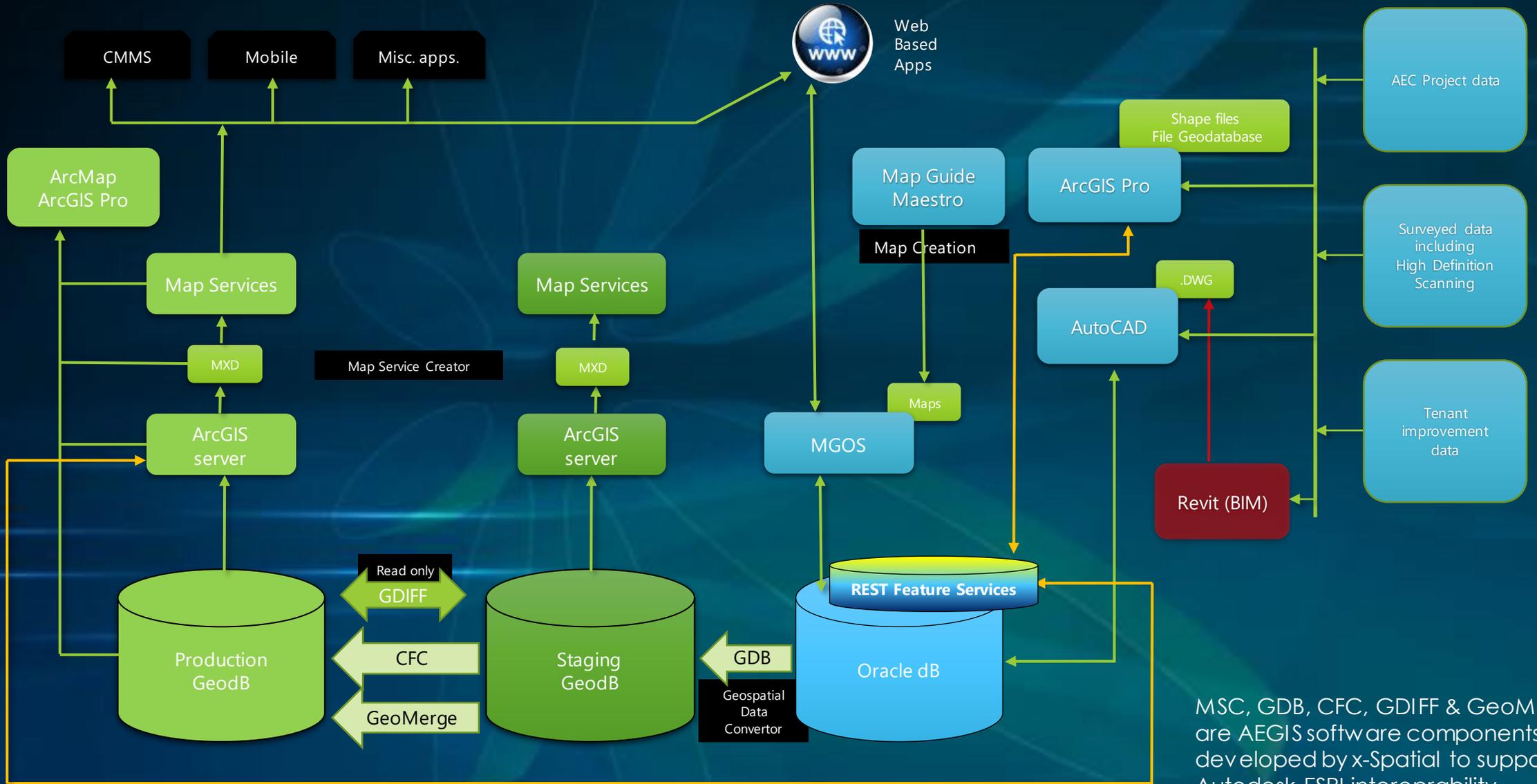
The screenshot displays the X·SPATIAL AEGIS Web UI interface. On the left is a navigation sidebar for 'EFMD Spatial Admin' with user 'Hello Ahmad Maghboul'. The main map area shows a floor plan of an airport terminal with various rooms highlighted in green and yellow. A 'Layers' panel on the left lists categories like Points, MLE, Room - Security, Room - Cleaning, Room, Room Description, Base Map, Airfield, Aerial, and Utilities. A 'Room - View Record' popup window is open, displaying the following data:

Actual Room No	6,919.00	AviSoft Room No	38
Area	6,919.00	Recorded Area	6,855.00
Use	Service		
Type	Holdroom		
Room Description	N/A		
Status	N/A		
Location Code	LAX000CTA00T103080038		
Security	Post Security		
Room Origin	N/A		
Cleaning Responsibility	LAWA		
Floor Type	N/A		
Room Rentable	No		
Notes			
Company:			

At the bottom of the interface, there is a status bar showing coordinates (X: 6440367.261239, Y: 1803371.031681 (FOOT)), '0 features selected', scale '1: 1397.41', and dimensions '1103.85 x 822.43 (ft)'. The 'Kelar Microwizard' logo is visible in the bottom right corner.

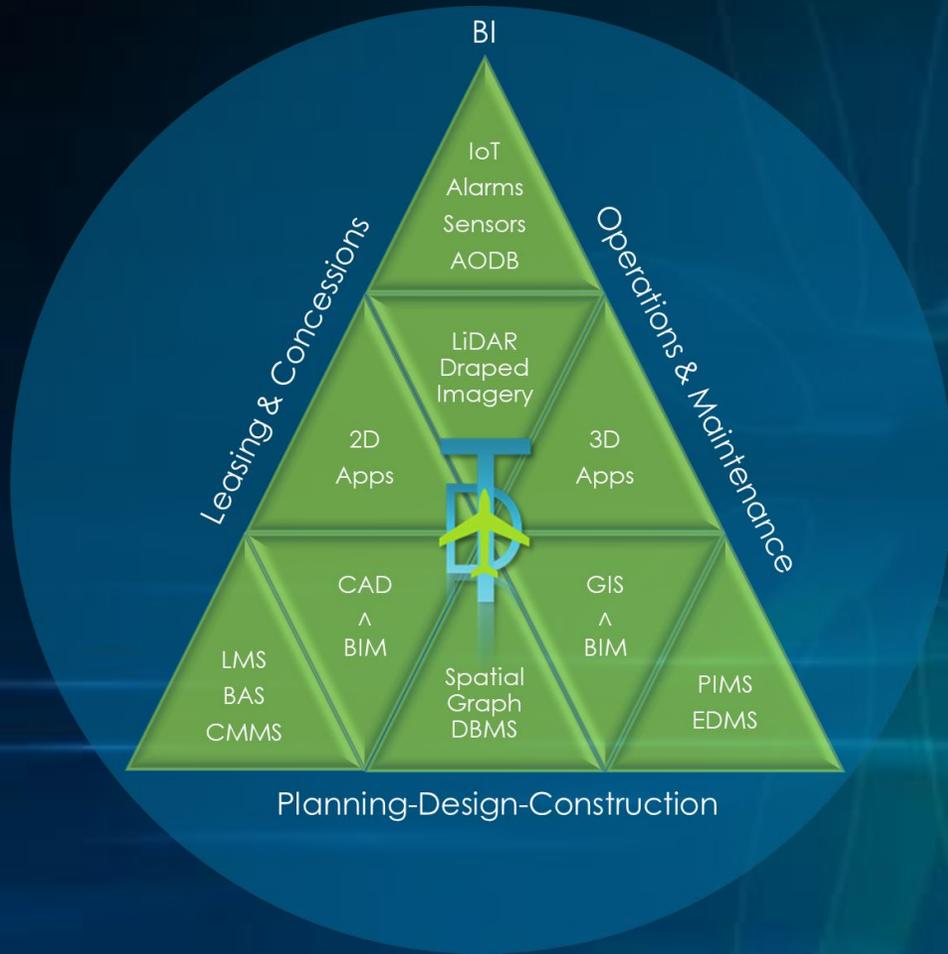
System Architecture

X·SPATIAL



MSC, GDB, CFC, GDIFF & GeoMerge are AEGIS software components developed by x-Spatial to support Autodesk-ESRI interoperability

Webinar Outline



2. Jul 26: Information Integration

→ Objective & Introductions

→ Disparate Information Correlation via Spatial Common Denominator

→ Multi-Dimensional Information Association

→ BIM-CAD-GIS-LiDAR with Draped Imagery

→ IoT Devices-Sensors-Alarms...

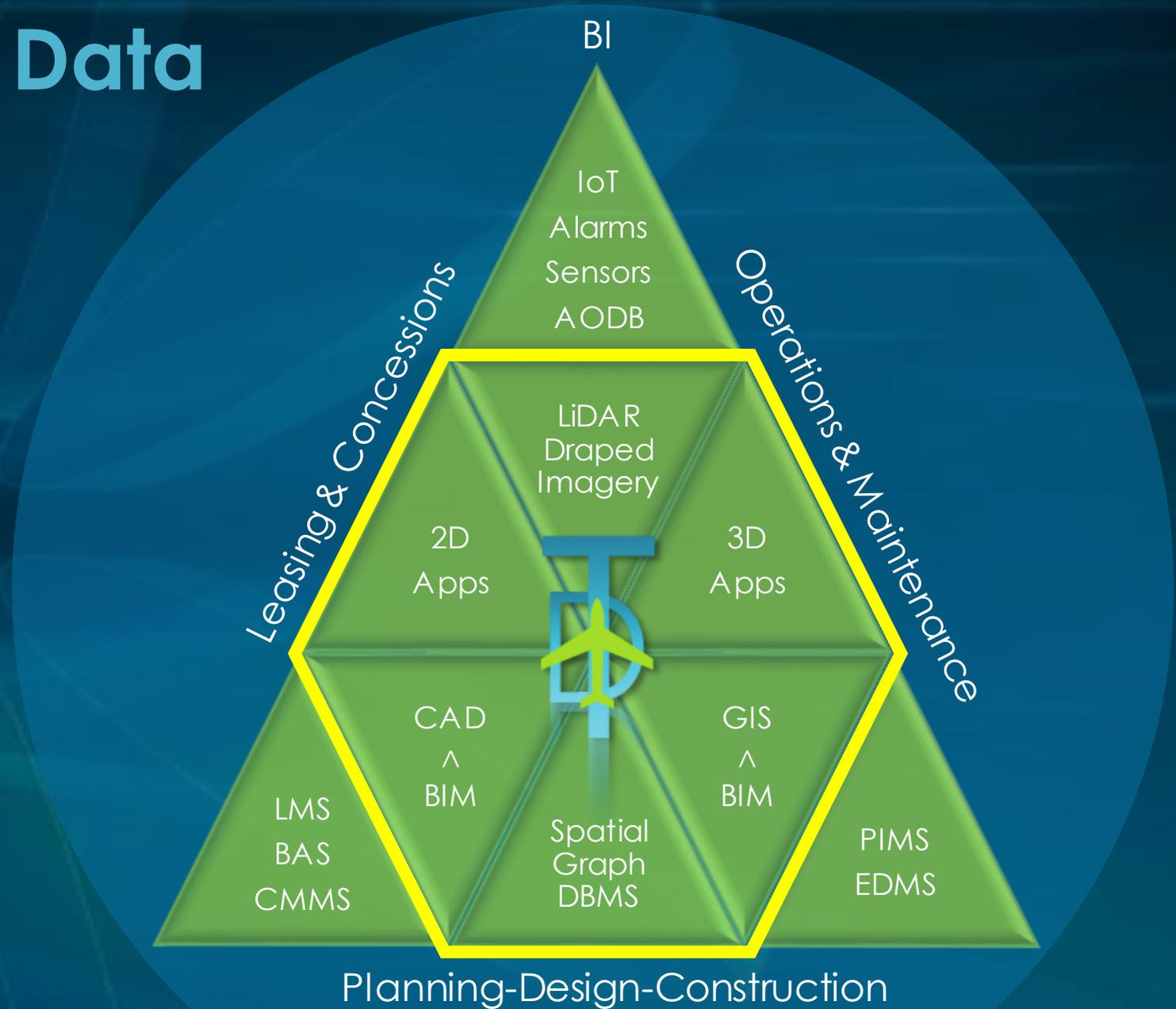
→ Documents-Files-Photos-Videos...

→ Process Workflows-Communications-Tasks...

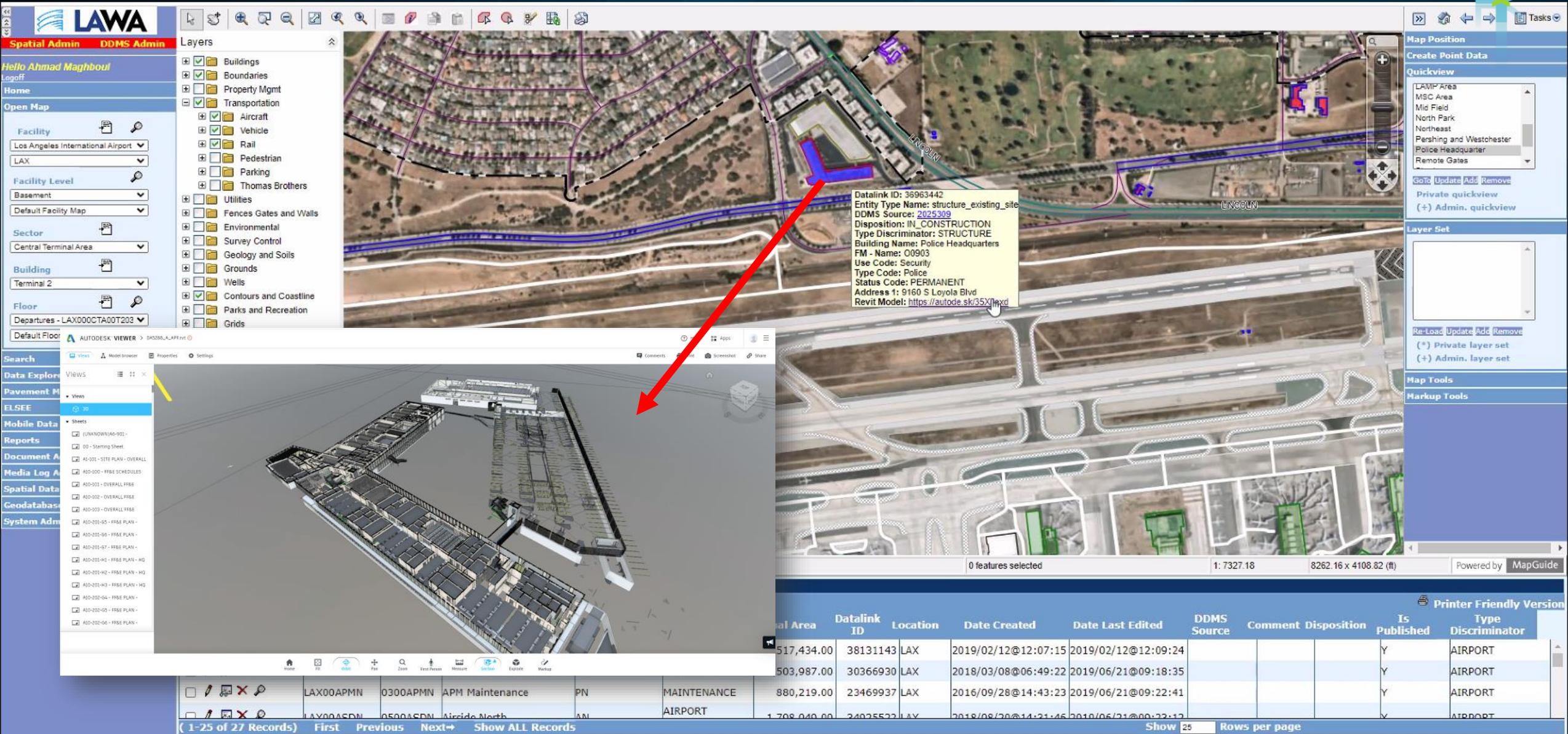
→ Business Intelligence (BI) Rollup

Integrating Spatial Data

- ✈ BIM
- ✈ CAD
- ✈ GIS
- ✈ LiDAR
- ✈ Imagery



Integrated BIM Records



The screenshot displays the X·SPATIAL software interface, which integrates BIM data with a 2D map. The interface is divided into several panels:

- Left Panel:** Contains user information (Hello Ahmad Maghoub), navigation options (Home, Open Map), and filters for Facility (Los Angeles International Airport), Facility Level (Basement), Sector (Central Terminal Area), Building (Terminal 2), and Floor (Departures - LAX000CTA00T203).
- Layers Panel:** Lists various data layers such as Buildings, Boundaries, Property Mgmt, Transportation, Aircraft, Vehicle, Rail, Pedestrian, Parking, Thomas Brothers, Utilities, Fences Gates and Walls, Environmental, Survey Control, Geology and Soils, Grounds, Wells, Contours and Coastline, Parks and Recreation, and Grids.
- Map View:** Shows an aerial view of the airport site with a 3D BIM model overlaid. A red arrow points from a specific structure in the 3D model to a corresponding structure in the 2D map. A tooltip for the selected structure provides the following details:
 - Datalink ID: 36963442
 - Entity Type Name: structure_existing_site
 - DDMS Source: 2025309
 - Disposition: IN_CONSTRUCTION
 - Type Discriminator: STRUCTURE
 - Building Name: Police Headquarters
 - FM - Name: 00903
 - Use Code: Security
 - Type Code: Police
 - Status Code: PERMANENT
 - Address 1: 9160 S Loyola Blvd
 - Revit Model: <https://autode.sk/35Xj1pxd>
- Right Panel:** Includes Map Position, Create Point Data, Quickview (listing areas like LAMP Area, MSC Area, Mid Field, North Park, Northeast, Pershing and Westchester, Police Headquarter, Remote Gates), Layer Set, and Map Tools.
- Bottom Panel:** Displays a table of records with columns for Total Area, Datalink ID, Location, Date Created, Date Last Edited, DDMS Source, Comment, Disposition, Is Published, and Type Discriminator.

Total Area	Datalink ID	Location	Date Created	Date Last Edited	DDMS Source	Comment	Disposition	Is Published	Type Discriminator
517,434.00	38131143	LAX	2019/02/12@12:07:15	2019/02/12@12:09:24				Y	AIRPORT
503,987.00	30366930	LAX	2018/03/08@06:49:22	2019/06/21@09:18:35				Y	AIRPORT
880,219.00	23469937	LAX	2016/09/28@14:43:23	2019/06/21@09:22:41				Y	AIRPORT
1,708,040.00	24025532	LAX	2018/08/20@14:31:46	2019/06/21@09:22:41				Y	AIRPORT

Web-Enabled BIM Access

X·SPATIAL



AUTODESK VIEWER > DA5288_A_APF.rvt

Views | Model browser | Properties | Settings

Help | Apps | Comments | Print | Screenshot | Share

Views

- 3D
- Sheets
 - (UNKNOWN)A6-901 -
 - 00 - Starting Sheet
 - A1-101 - SITE PLAN - OVERALL
 - A10-100 - FF&E SCHEDULES
 - A10-101 - OVERALL FF&E
 - A10-102 - OVERALL FF&E
 - A10-103 - OVERALL FF&E
 - A10-201-G5 - FF&E PLAN -
 - A10-201-G6 - FF&E PLAN -
 - A10-201-G7 - FF&E PLAN -
 - A10-201-H1 - FF&E PLAN - HQ
 - A10-201-H2 - FF&E PLAN - HQ
 - A10-201-H3 - FF&E PLAN - HQ
 - A10-202-G4 - FF&E PLAN -
 - A10-202-G5 - FF&E PLAN -
 - A10-202-G6 - FF&E PLAN -
 - A10-202-G7 - FF&E PLAN -
 - A10-202-H1 - FF&E PLAN - HQ

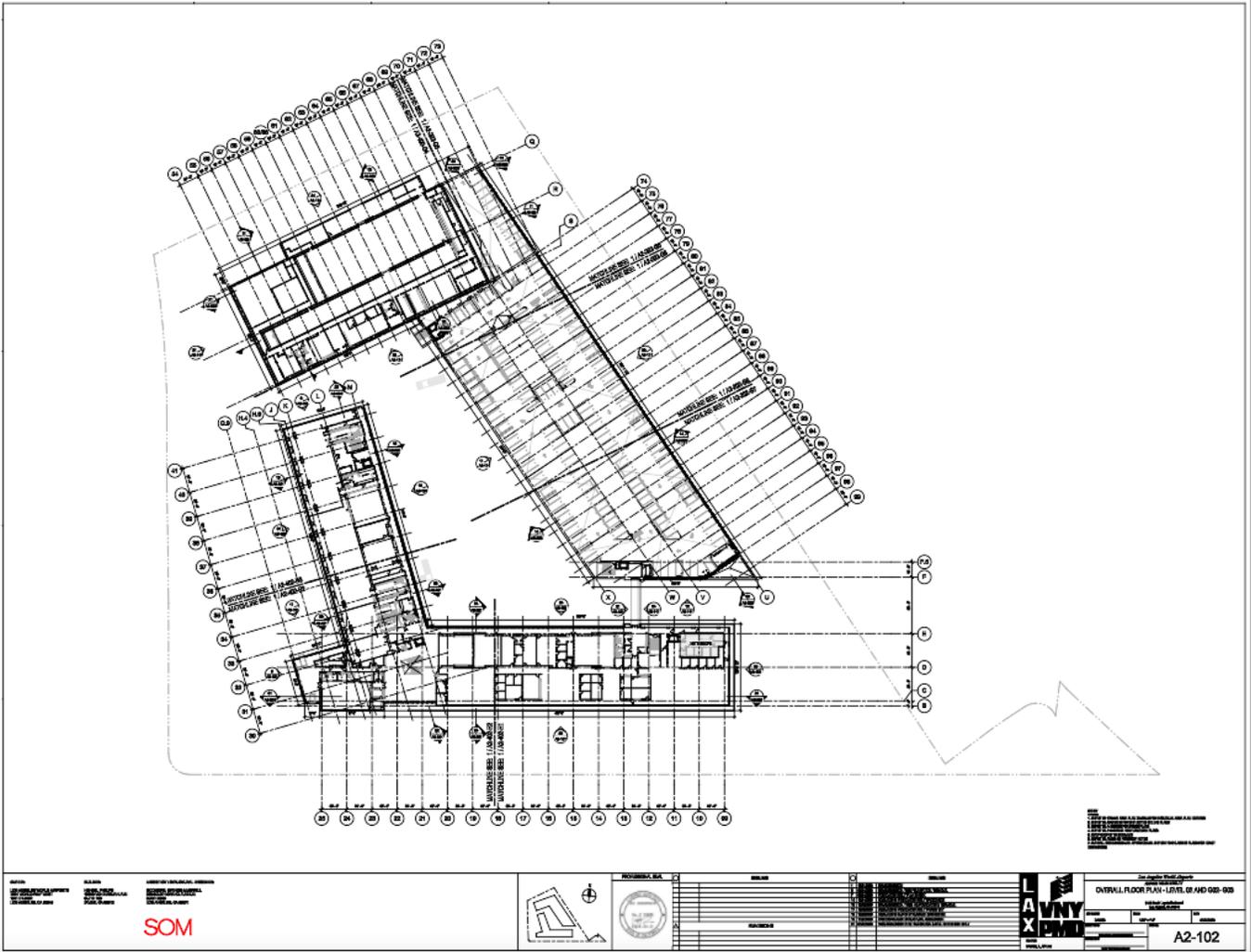
BIM Exported Record Drawings

X·SPATIAL



Views

- A2-044 - ENCLOSURE TYPE
- A2-045 - ENCLOSURE TYPE
- A2-051 - OPEN GARAGE
- A2-061 - HQ BUILDING AREA
- A2-062 - GARAGE AREA
- A2-063 - HQ BUILDING AREA
- A2-064 - GARAGE AREA
- A2-065 - HQ BUILDING AREA
- A2-066 - GARAGE AREA
- A2-067 - HQ BUILDING AREA
- A2-068 - GARAGE AREA
- A2-101 - OVERALL FLOOR
- A2-102 - OVERALL FLOOR**
- A2-103 - OVERALL FLOOR
- A2-104 - OVERALL FLOOR
- A2-201-G4 - FLOOR PLAN -
- A2-201-G5 - FLOOR PLAN -
- A2-201-G6 - FLOOR PLAN -
- A2-201-G7 - FLOOR PLAN -
- A2-201-H1 - FLOOR PLAN - HQ
- A2-201-H2 - FLOOR PLAN - HQ
- A2-201-H3 - FLOOR PLAN -



CAD to GIS Automation

X·SPATIAL



Example: CLT's Main Terminal Ticketing Level Floor Plan (491 rooms)

Reduces CAD to GIS Conversion Time from 94 hrs. to 15 sec.

Export - Connection: Oracle_1.FeatureSource

Select objects to export:
 Select all Select manually

Filter selection:
Layers: A-AREA
Object classes:

Select polygon topology to export:
Name: <None>
 Group complex polygons

Save profiles:
Load... Save... Current profile: CLM5_LeaseBoundary.sxf

OK Cancel Help

Command: DwgRmNumber
ERROR: Missing Text style(s) for display of schedule.
Schedule Display Process was aborted.
Command:

CAD to GIS Automation

X·SPATIAL



Autodesk AutoCAD Map 3D 2014 - NOT FOR RESALE C:\Users\ed.KELAR-LA\Dropbox\x-spatial\GDMS\Drawing5.dwg

Home Insert Annotate Feature Edit Create Analyze View Tools Output Map Setup Help Autodesk 360 Plug-ins Featured Apps Plug-ins Express Tools LMA UMS Classification

Setup Classify Select Create

Task Pane

Display Manager

- water_junction_point
- water_line
 - water_line_ABANDONED
 - water_line_AS_BUILT FIRE
 - water_line_AS_BUILT MAIN
 - water_line_AS_BUILT RAW_WATER
 - water_line_AS_BUILT SERVICE
 - water_line_AS_BUILT SPRINKLER
 - water_line_DOMESTIC_FIRE
 - water_line_EMERG_CONN_LINE
 - water_line_FIRE
 - water_line_MAIN

Map Explorer

Map Book

Survey

Properties

Design

Object Class

Display

- Create Classified Object...
- Select Classified Objects
- Classify Objects...
- New Object Class...
- Delete
- Rename...
- Properties...
- View Metadata...
- Help

Utilities Data



LAWA

Spatial Admin DDMS Admin

Hello Anna X Melikyan

Home

Open Map

Search

Data Explorer

- boundary
- buildings
 - buildings_access
 - buildings_equipment
 - buildings_general
 - buildings_roof
 - buildings_safety
 - buildings_security
 - buildings_space
 - buildings_structure
- cadastre
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement
- land_status
- landform
- transportation
- utilities
 - utilities_cntrl_mntr_system
 - utilities_compressed_air_sy
 - utilities_electrical_ext_light
 - utilities_electrical_system
 - utilities_fuel_system
 - utilities_general
 - utilities_heat_cool_system
 - utilities_industrial_system
 - utilities_natural_gas_syste
 - utilities_storm_system

Map Position

Create Point Data

Add Point(s)

Multi-Point Mode

Point Classification

buildings
buildings_access
bldgs_door_point
DOOR_EXTERIOR

Auto-Generate Attributes

Auto-Gen Suffix

Delete Point(s)

Move Point(s)

Quickview

Admin East
Admin West
CTA
Century East
ConRac Area
FBO
Imperial Cargo Complex
Imperial East

Go To Update Add Remove

Private quickview
(+) Admin. quickview

Layer Set

Map Tools

Zoom Scale

Zoom Selection
Zoom to Initial View
Zoom to Previous View
Zoom to Next View

Buffer

Select within
Clear Selection

Measure Dist
Measure Area

X: 6425661.707718, Y: 1799023.582801 (FOOT) 0 features selected 1: 22302.27 4.76 x 2.37 (mi) Powered by MapGuide

Data Administration View Feature Class: utilities_electrical_system

electrical_cable_line	electrical_capacitor_point	electrical_ductbank_line	electrical_generator_point	electrical_ground_point	electrical_junction_site	electrical_meter_point	electrical_motor_point	electrical_panel_area	electrical_pedestal_point						
Material Composition Code	Group Conductor Quantity	group Conductor Size Code	Voltage Code	Narrative Text	Depth	Datalink ID	Location	Date Created	Date Last Edited	DDMS Source	Comment	Disposition	Is Published	Type Discriminator	
STEEL_GALV				6				1 1/2" CONDUIT		289164	LAX	2005/05/04@08:29:55	2016/12/23@08:30:42	0150174	EXIST 1 1/2"

(1-25 of 7,123 Records) First Previous Next Show ALL Records

Airside Data



LAWA

Spatial Admin DDMS Admin

hello Anna X Melikyan
ogoff

Home

Open Map

Search

Data Explorer

- boundary
- buildings
- cadastre
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement
- land_status
- landform
- transportation
 - trans_pavement_distress
 - trans_pavement_inventory
 - transportation_air
 - transportation_airfield_facili
 - transportation_general
 - transportation_pedestrian
 - transportation_railroad
 - transportation_vehicle
- utilities

Pavement Management

ELSEE

Mobile Data

Reports

Layers

- Buildings
- Boundaries
- City - County Boundaries
- Property Mgmt
- Transportation
 - Aircraft
 - NavAid
 - RWY End Poir
 - Centerlines
 - Airfield
 - Runway
 - Taxiway
 - Taxilane
 - Apron
 - Airfield Names
 - Infield
 - Dustcap
 - Airport Safety Are
 - Object Fre
 - Obstructio
 - Runway P
 - Runway S
 - Taxiway S
 - All Areas
 - Vehicle
 - Pedestrian
 - Parking

X: 6445926.113201, Y: 1799673.757519 (FOOT) | 0 features selected | 1: 30281.66 | 3.56 x 2.52 (mi) | Powered by MapGuide

Map Position

Create Point Data

Add Point(s)

Multi-Point Mode

Point Classification

buildings
buildings_access
bldgs_door_point
DOOR_EXTERIOR

Auto-Generate Attributes

Auto-Gen Suffix

Delete Point(s)

Move Point(s)

Quickview

Admin East
Admin West
CTA
Century East
ConRac Area
FBO
Imperial Cargo Complex
Imperial East

GoTo Update Add Remove

Private quickview

(+) Admin. quickview

Layer Set

Map Tools

Zoom Scale

Data Administration View Feature Class: transportation_air

airfield_infield_site	airfield_safety_area	airfield_surface_centerline	airfield_surface_marking_area	airfield_surface_site	navigational_aid_point	rwy_disp_thresh						
Unique Data Identifier	Use Code	Feature Name	FM Name	FM Type	FM Name - OLD	Datalink ID	Location	Date Created	Date Last Edited	DDMS Source	Comment	Dispo
19555002	Dustcap		DCPE08	DCP		19555002	LAX	2016/01/28@13:52:14	2021/02/25@09:10:37			
19555003	Dustcap		DCPC01	DCP		19555003	LAX	2016/01/28@13:52:14	2021/02/25@09:10:37			

(1-25 of 663 Records) First Previous Next→ Show ALL Records Show 25 Rows per

Airside Data



IMTG

Spatial Admin DDMS Admin

Hello Ahmad Maghboul

Home

Open Map

Facility
Los Angeles International Airport
LAX - Signage

Parcel
CTA

Building
Terminal 2

Floor
Level 1 - Baggage Claim - LAX01
-Select a Map-

Search

Data Explorer

Pavement Management

ELSEE

Mobile Data
Download

Upload Drawings
Upload Attachments

Reports

Document Administration

Spatial Data Administration

Geodatabase Administration

System Administration

Aerial Photo Date: August 17 2014

X: 6433551.715925, Y: 1798251.134426 (FOOT)

0 features selected

1: 2422.70 2887.47 x 1377.49 (ft)

Kelar Microwizard

Layers

- Buildings
- Transportation
- Airside
 - Airfield Light Point
 - Navigational Aid F
 - Aircraft Parking S
 - Part 139 Day Insp
 - Service Road
 - Airfield Marking
 - Facility Maintenan
 - Runway
 - Taxiway
 - Taxilane
 - Apron
 - Infield
 - Airfield Surface
 - Airfield Surface P
 - Signage
 - signage_ed
- Landside
- Thomas Brothers
- Aerial
- Base Map
- Building

Quickview

- (+) 2nd Level Roadway As-B
- (+) Admin East
- (+) Admin West
- (+) Butterfly Zone
- (+) Central Terminal Area - C
- (+) Century Blvd
- (+) Century Cargo Area
- (+) FBO

GoTo Update Add Remove

(*) Private quickview
(+) Admin. quickview

Layer Set

(*Jeds lazer
86026-80-01-R02

Re-Load Update Add Remove

(*) Private layer set
(+) Admin. layer set

Map Tools

Markup Tools

Parcels

	Location Code	Parcel No.	Parcel Name	Zoning	Actual Area	Datalink ID	Type Discriminator	Location	Date Created	Date Last Edited	Owner Operator	Leaseholder Name	Comment	Disposition	Is Published
<input type="checkbox"/>	LAX000CTA	CTA	CTA	TERMINAL	23,223,120.00	11565485	PARCEL	LAX	2013/07/25@18:59:51	2013/08/28@15:53:51					Y
<input type="checkbox"/>	LAX000RAC	RAC	RAC	SERVICE	7,264,021.00	11565498	PARCEL	LAX	2013/07/25@18:59:51	2013/08/28@00:28:34					Y
<input type="checkbox"/>	LAX00AQBF	AQBF	ACQUISITION AREA - BELFORD	ACQUISITION AREA	880,216.00	11565491	PARCEL	LAX	2013/07/25@18:59:51	2013/08/28@00:28:34					Y
<input type="checkbox"/>	LAX00AQMS	AQMS	ACQUISITION AREA - MANCHESTER SQUARE	ACQUISITION AREA	5,322,053.00	11565492	PARCEL	LAX	2013/07/25@18:59:51	2013/08/28@00:28:34					Y
<input type="checkbox"/>	LAX00BADL	BADL	BADLANDS	OPEN	5,209,899.00	11565488	PARCEL	LAX	2013/07/25@18:59:51	2013/08/28@00:28:34					Y

Facilities Data



LAWA

Spatial Admin DDMS Admin

Hello Anna X Melikyan
Logout

Home

Open Map

Facility
Los Angeles International Airport

LAX

Facility Level
Level 01

Default Facility Map

Sector
Central Terminal Area

Building
Tom Bradley International Termin

Floor
Arrival - LAX000CTATBIT01

Default Floor Map

Search

Data Explorer

- boundary
- buildings
 - buildings_access
 - buildings_equipment
 - buildings_general
 - buildings_roof
 - buildings_safety
 - buildings_security
 - buildings_space
 - buildings_structure
- cadastre
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement
- land_status
- landform
- transportation

Layers

- Emergency Info
 - bg_safe_asset_point
 - Defib / Bleed Kit
 - Fire Extinguisher
 - Emergency Phone
 - Unknown
- em_access_point
- Equipment
 - EV Charging Station
 - Footbridge_area
 - Gate Number
 - Jet Bridge
- Interior Features
 - Floorplan Information
 - Building Zones
 - Door / Access Points
 - Room Information
 - Leasehold Information
 - Cleaning Respons
 - Leaseholder
 - Space Description
- Parking
- Design
 - Lease by Use
 - Room by Use
- Base Map
- Aerial

Map Position

Create Point Data

Add Point(s)

Multi-Point Mode

Point Classification

buildings_access

bidgs_door_point

DOOR_EXTERIOR

Auto-Generate Attributes

Auto-Gen Suffix

Delete Point(s)

Move Point(s)

Quickview

Admin East

Admin West

CTA

Century East

ConRac Area

FBO

Imperial Cargo Complex

Imperial East

GoTo Update Add Remove

Private quickview

(+) Admin. quickview

Layer Set

Map Tools

Zoom Scale

Zoom Selection

Zoom to Initial View

Zoom to Previous View

Zoom to Next View

Buffer

Select within

Clear Selection

Measure Dist

Measure Area

X: 6437787.977716, Y: 1801751.013891 (FOOT)

0 features selected

1: 1234.75

1392.31 x 692.40 (ft)

Powered by MapGuide

Data Administration View Feature Class: buildings_safety

		bg_safe_asset_point	em_access_point															
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Primary Key Identifier	Unique Data Identifier	Name	Phone Number	Serial Number	Narrative Text	Datalink ID	Location	Date Created	Date Last Edited	DDMS Source	Comment	Disposition	Is Published	Type Discriminator
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29871981	29871981	Family Restroom	2000017130		Family Restroom	29871981	LAX	2017/10/13@10:07:48	2020/05/22@09:24:30				Y	EMERGENCY_PHONE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29871983	29871983					29871983	LAX	2017/10/13@10:01:59	2018/04/25@12:18:28				Y	FIRE_EXTING
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29871984	29871984	Women's Restroom	2000017128		Women's Restroom	29871984	LAX	2017/10/13@10:01:06	2020/05/22@09:25:07				Y	EMERGENCY_PHONE

(1-25 of 63 Records)

First Previous Next→ Show ALL Records

Show 25 Rows per page

Indoor Assets Data

IMTG

Spatial Admin DDMS Admin

Hello Behzad Mohammadi

Logoff Show System Variables

Home

Open Map

Facility

Los Angeles International Airport

LAX

Facility Level

Basement

Default Facility Map

Sector

Central Terminal Area

Building

Tom Bradley International Termi

Floor

Level 4 - Departures - LAX000C

[Admin_Only] Security Equipmer

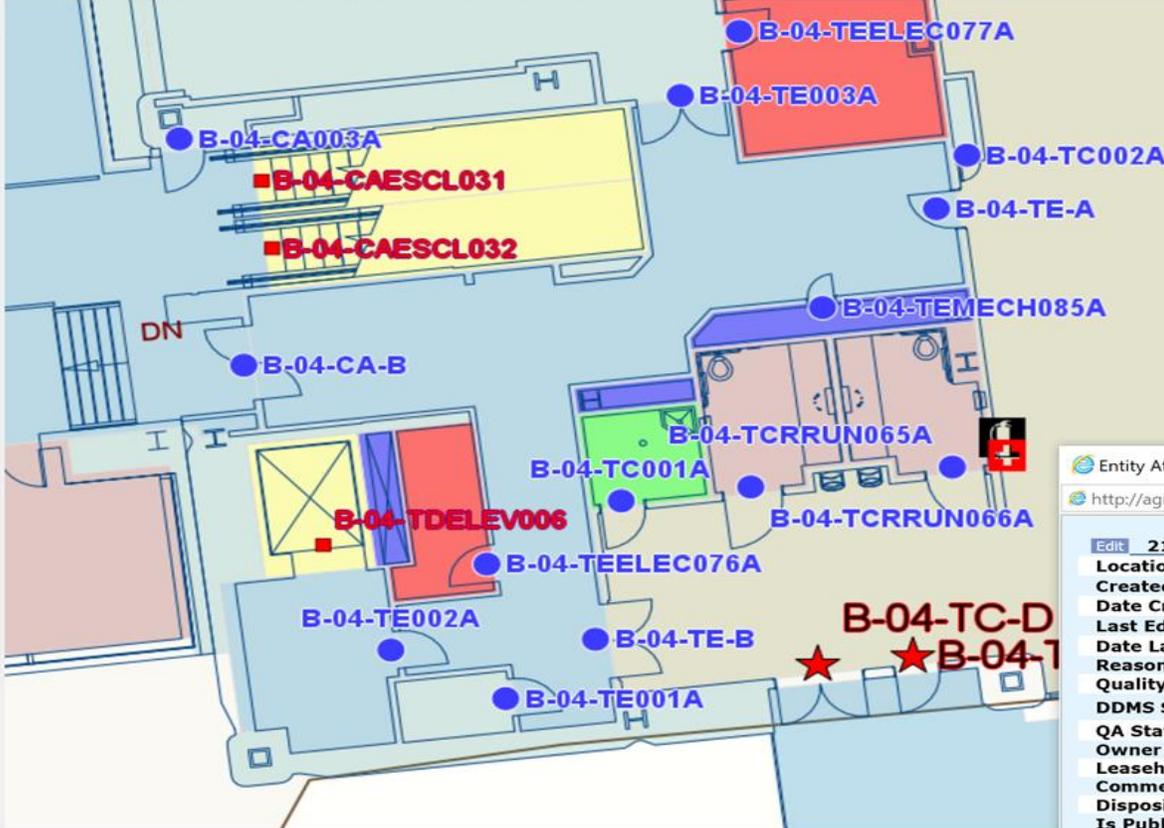
Search

Data Explorer

- boundary
- buildings
 - buildings_access
 - buildings_equipment
 - buildings_general
 - buildings_roof
 - buildings_safety
 - buildings_security
 - buildings_space
 - buildings_structure
- cadastre
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement

Layers

- Layer Group
 - acams_point_by_
- CCTV
 - Camera
 - PTZ Camera
- Emergency Info
 - Emergency Stair
 - Defib, Fire Ex., En
 - Defib / Bleed Kit
 - Fire Extinguisher
 - Emergency Phone
 - Unknown
- Equipment
- Interior Features
 - Floorplan Informaton
 - Building Zones
 - Door / Access Points
 - Ladders
 - Interior Doors
 - Emergency
 - Entry Access
 - Stair Access
 - Interior Access
 - Unclassified



X: 6437459.792370, Y: 1801776.020809 (FOOT) 0 features selected

Map Position

Create Point Data

Add Point(s)

Multi-Point Mode

Point Classification

transportation

transportation_airfield_facility

airfield_facility_surface_site

N/A

Auto-Generate Attributes

Auto-Gen Suffix

Delete Point(s)

Move Point(s)

Quickview

Layer Set

Map Tools

Markup Tools

Data Administration View Feature Class: buildings_safety

bg_safe_asset_point

	Primary Key Identifier	Unique Data Identifier	Name	Datalink ID	Location	Date Created	Date Last		
<input type="checkbox"/>	21640067	21640067	T4SC-1	21640067	LAX	2016/06/27@09:34:16	2016/07/18@15:56:26		Y AED
<input type="checkbox"/>	21640068	21640068		21640068	LAX	2016/06/27@09:34:10	2016/07/18@15:56:26		Y FIRE_EXTING

(1-19 of 19 Records) First Show 25 Rows per page

Entity Attribute - Internet Explorer

http://agis.x-spatial.com/UMS/cfscripts/Forms/EntityType_View.cfm?RecordID=21640067

Edit 21640067, buildings, buildings_safety, bg_safe_asset_point, bgsa

Location LAX

Created By SP028139541053\lawadefault

Date Created 2016/06/27@09:34:16

Last Edited By avidovic

Date Last Edited 2016/07/18@15:56:26

Reason Code

Quality Level D

DDMS Source

QA Status 1 - GEOMETRY ONLY

Owner Operator

Leaseholder Name

Comment

Disposition

Is Published Y

Type Discriminator AED

Attributes Documents (0)

Primary Key Identifier 21640067

Name T4S

3D LiDAR with Draped Imagery

X·SPATIAL



Integrated 3D with GIS

X·SPATIAL



leaders in airport information management
X·SPATIAL

Conc_A_North_Ticket_V3

ed.maghboul@x-spatial.com

Map Position
Create Point Data
Quickview
Concourse A
Concourse A North
Concourse B and C
Concourse D
Concourse E
Terminal Area
GoTo Update Add Remove
Private quickview
(+) Admin. quickview
Layer Set
Map Tools
Zoom Scale
Zoom Selection
Zoom to Initial View
Zoom to Previous View
Zoom to Next View
Buffer
Select within
Clear Selection
3D Project View
Measure Dist
Measure Area
Get Length
Get Area
Get Coordinates
Printable Page
Dwf Plot
Markup Tools

0 features selected 1: 363.34 409.70 x 203.75 (ft) Powered by MapGuide

	Location Code	AEGIS Room No	Interior Space Identifier	Short Name	Full Name	Description	Concourse	Room Type	CommRoom	Tenant	Status	Accessibility	Area	Exhibit J	Exhibit J Area	Exhibit K Join	Old Short Name	Older Short Name	New Short Name	Cleaning Responsibility	Ex A
<input type="checkbox"/>	CLT_TERM000302030061	0061	1002A2-0110	A2-0110	100-A2-0110	Corridor	A	Corridor		CLT		Public	11,843.30			0					

(1-25 of 94 Records) First Previous Next Show ALL Records

Remote Desktop Connection

Integrated Multi-Dimensional Data

X·SPATIAL



Entity Attribute - Personal - Microsoft Edge
Not secure | airports.x-spatial.com/UMSCLT/cfs/scripts/forms/EntityViewView.cfm?RecordID=878013...
Edit: 878013, buildings, buildings_equipment, bldg_generators, bgutgen

Location	CLT
Created By	ed
Date Created	2022/02/10@10:06:10
Last Edited By	ed
Date Last Edited	2022/02/10@10:13:15
Asset ID	90001
Quality Level	A
DDMS Source	
Comment	
Disposition	
Is Published	N
Type Discriminator	GENERATOR

Attributes	Documents (1)
ID	
RoomNumber	
BuildingNumber	
Location	Conc A North
Model	ABB ZN1
Serial	
KW	
Age	
Manufacture_Date	06/2017
Notes	
Fuel_Tank_Types	
Fuel_Tank_Size	
Floor	
Status	ACTIVE
Verified?	YES
MaintainedBy	CLT

Attributes	Documents (1)				
Bar Code No.	Project Title	Sheet No	Sheet Title	Alias	Document Type
2020001	Elec Panel Documentation				Manual

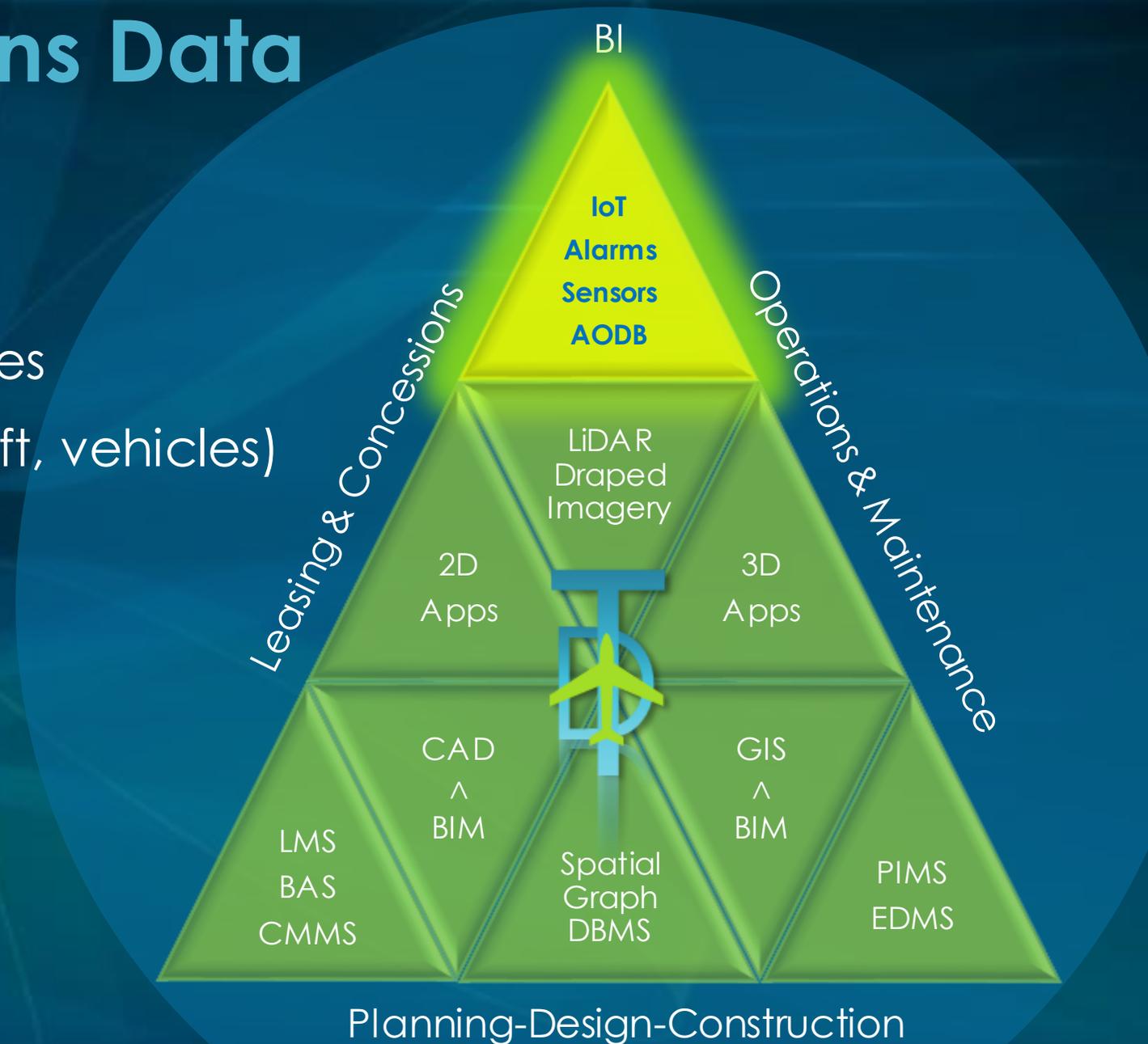
Entity Detail:
DataLink ID: 078013
Entity Type Name: bldg_generators
Type Discriminator: GENERATOR
RoomNumber: 0013
Related Documents (Max 20):
- 2020001_ZN1_Manual.pdf
- 2020001_CLT_GAR_SIR.dwg

Document Viewer:
ZN1
Installation, Operation and Maintenance Manual

In-door Imagery Draped over LiDAR Integrated with GIS

Integrating Operations Data

- Roadway Traffic
- Curb to Gate PAX Flux
- Security Checkpoint Wait Times
- AOA Movements (e.g., aircraft, vehicles)
- Aircraft Gate Turnaround
- Access Control Alarms
- Fire Alarms
- Restrooms Level of Service
- Trash-bins capacity
- etc...



Emergency Dispatch Data

LAWA
Spatial Admin DDMS Admin

Hello Anna X Melikyan
Logoff

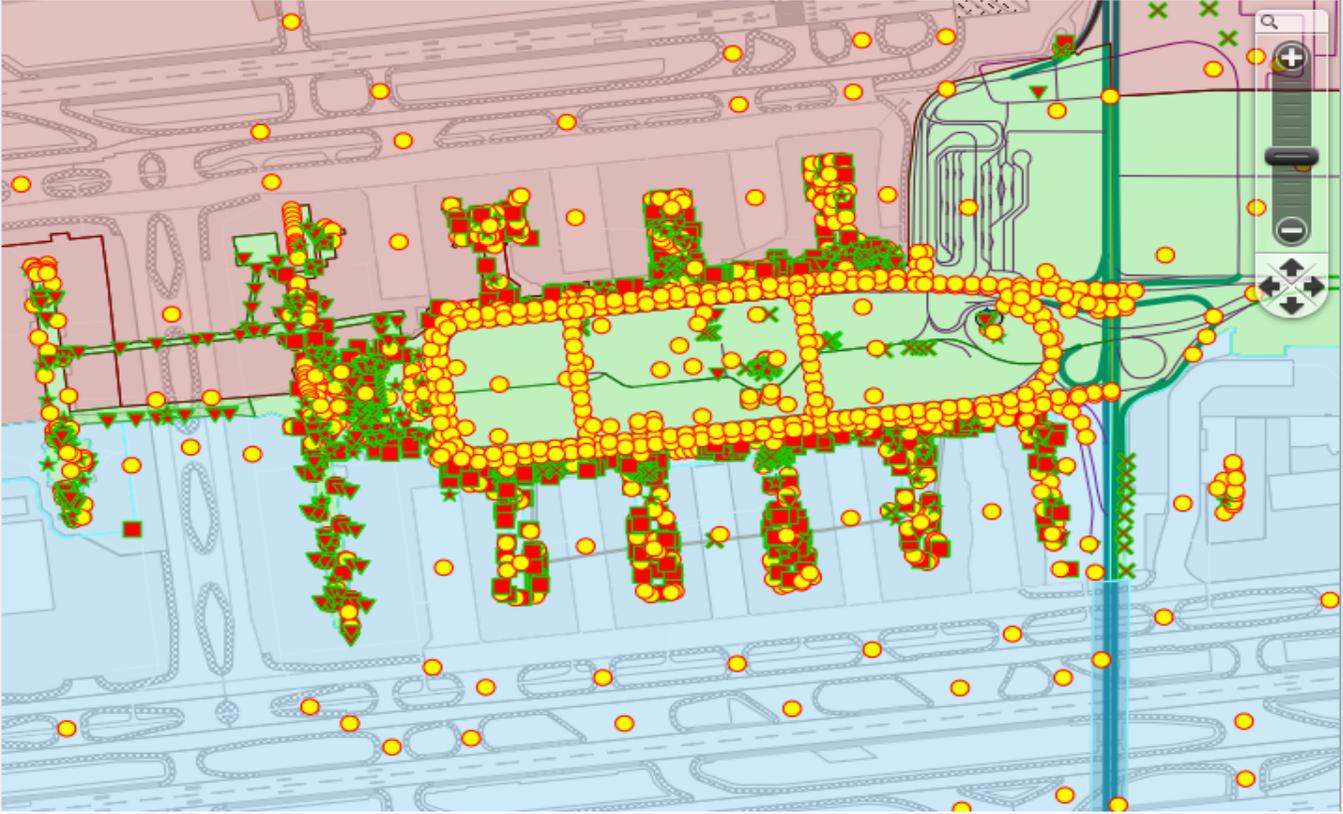
Home
Open Map
Search

Data Explorer

- boundary
- buildings
 - buildings_access
 - buildings_equipment
 - buildings_general
 - buildings_roof
 - buildings_safety
 - buildings_security
 - buildings_space
 - buildings_structure
- cadastre
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement
- land_status
- landform
- transportation
- utilities
 - utilities_cntrl_mntr_system
 - utilities_compressed_air_sy
 - utilities_electrical_ext_light
 - utilities_electrical_system

Layers

- Safety
 - APD HQ
 - Fire Stations
 - Security Posts
 - Patrol Areas
 - Dispatch Points
 - Exterior Dispa
 - Common Name
 - Dispatch Doors
 - Duress/Covert
 - Phone
 - AED
 - Fire Ext
 - TBD
 - All Dispatch P
 - Common Name
 - Dispatch Doors
 - Duress/Covert
 - E Phone
 - VOIP Location
 - AED
 - Fire Ext
 - TBD
 - All Points by F
 - Common Nam
 - 207 Doors by I
 - AED and First



X: 6440853.299056, Y: 1801676.428155 (FOOT) | 0 features selected | 1: 11708.59 | 7277.21 x 5142.84 (ft) | Powered by MapGuide

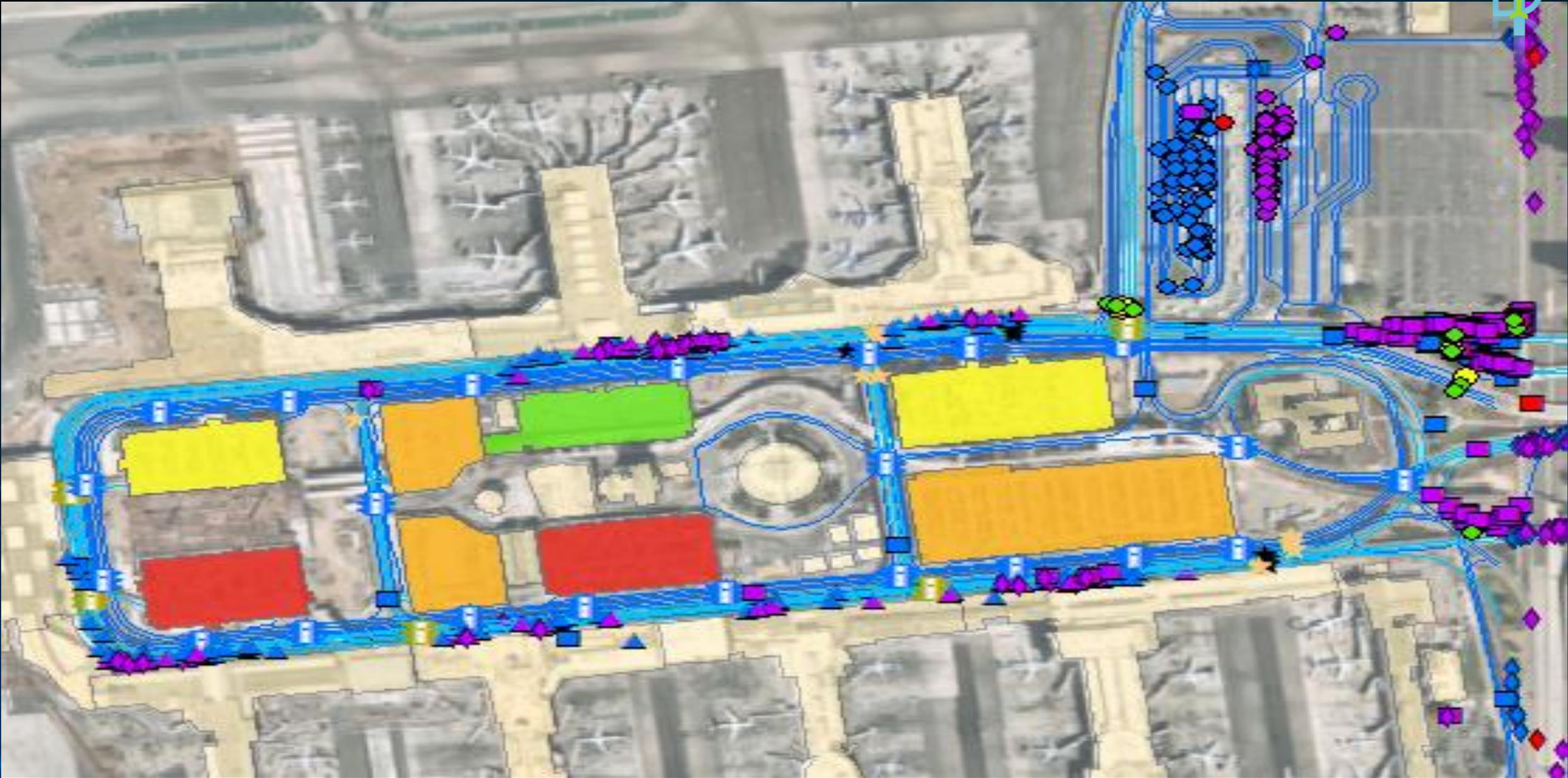
Data Administration View Feature Class: buildings_general

slab area	structure existing point	structure existing site	structure foundation line	structure future site	structure modification site										
Unique Data Identifier	Location Code	Parcel ID	Building Name	Legacy Name	Building No.	FM - Name	FM Name - OLD	FM - Type	Use Code	Type Code	Status Code	Condition Code	Security Access Level	Address 1	Address 2
	14488166	14488166	LAWA	Centra Cargo		D0501	CGRC41	CRG	Cargo		PERMANENT			10326 Aviation	

(1-25 of 696 Records) First Previous Next→ Show ALL Records

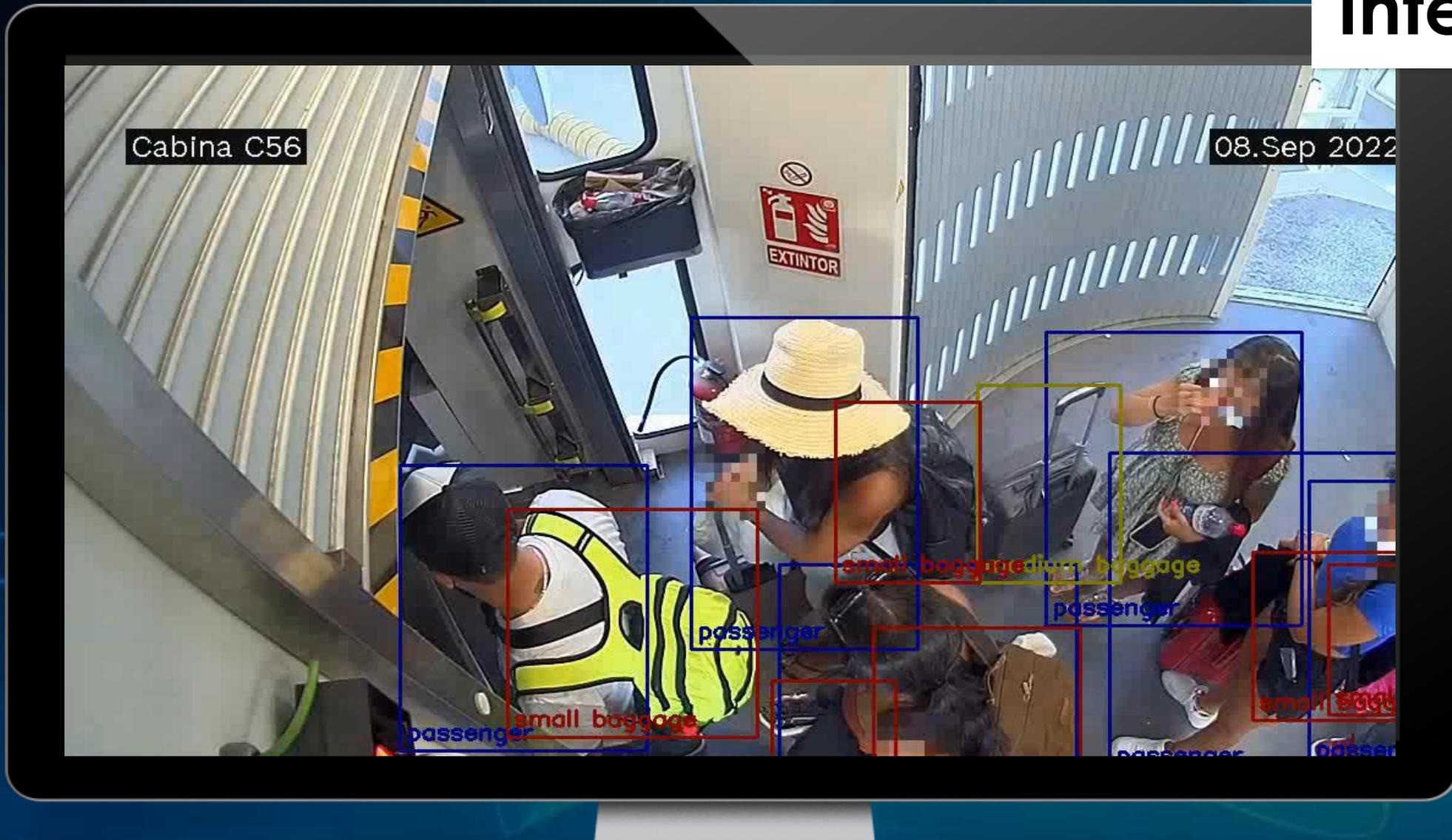
Landside Data

X·SPATIAL



Passenger Data

Courtesy of
IntellAct

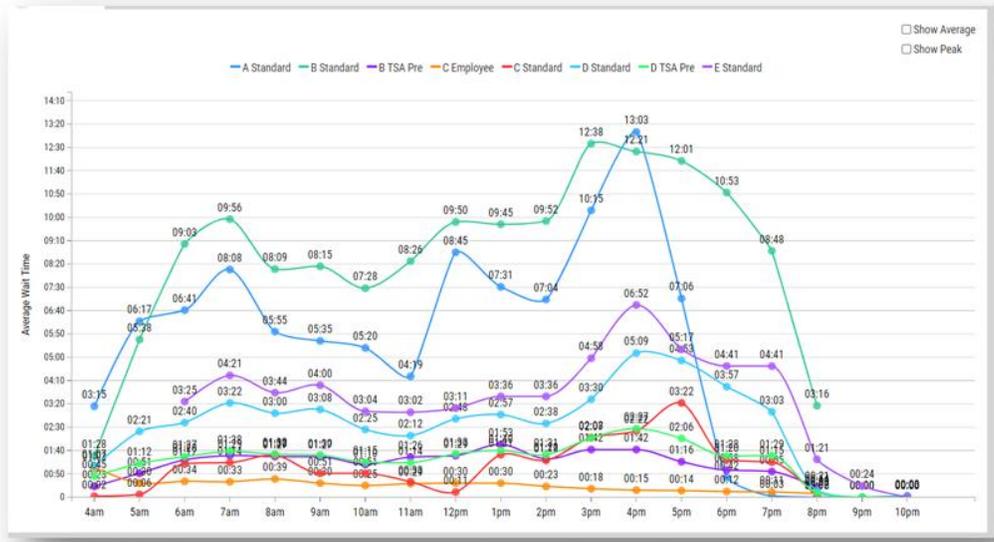


Security Checkpoint Data

Courtesy of
skyfii



- A
- B
- C
- DE



Expand All

- A 2-6 Standard
- B 11-15 Standard, 1-3 TSA Pre
- C 1-3 Standard, 1-3 Employee
- D 5-9 Standard, 1-3 TSA Pre
- E 4-8 Standard

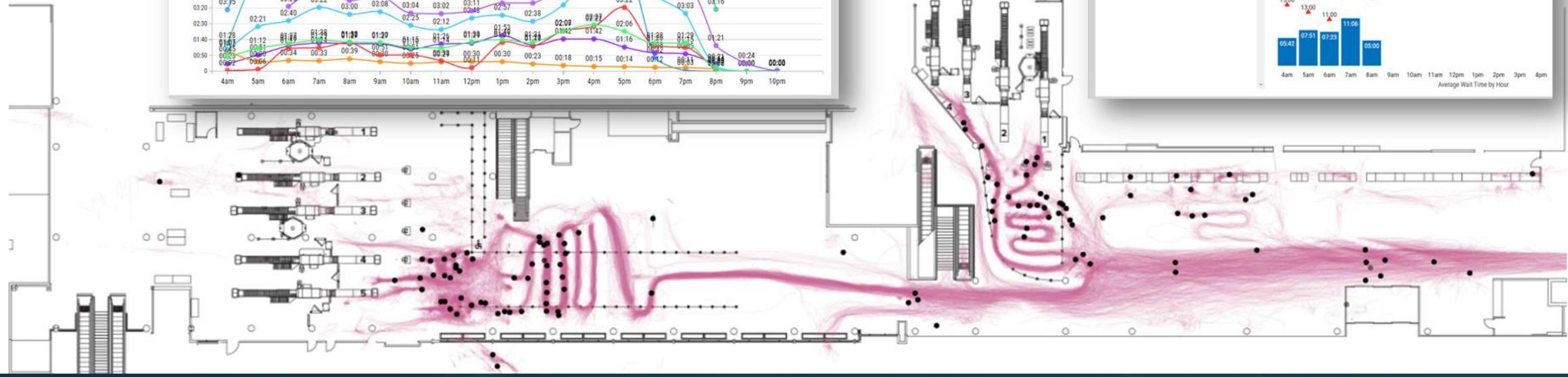
A Checkpoint Standard Open Override

Current Wait Time: 2-6 m | Dwell Time: 5-9 m

Avg Population: 34 pax | Throughput: 336 pax/hr

Population per Hour Today's PAX Sum: 1268

Hour	Average Wait Time
4am	05:42
5am	07:51
6am	07:23
7am	11:06
8am	08:00
9am	
10am	
11am	
12pm	
1pm	
2pm	
3pm	
4pm	



Real-Time Sensor Overlay

X·SPATIAL



AEGIS
https://airports.x-spatial.com/UMSCLT/cfscrips/main_frame.cfm

CLT

Spatial Admin DDMS Admin

Hello Ed Maghboul
Logout

Home

Open Map

Facility
Charlotte Douglas International A

Facility Level
[AdminOnly] CLT

Level 01

Default Facility Map

Sector
Terminal

Building
Main

Floor
Floor 2 - CLT_TERM000202

Checkpoint Status

Search

Data Explorer

Reports

Document Administration

Spatial Data Administration

Geodatabase Administration

System Administration

Layers

- Floor Features
 - building_room_area
 - Doors
 - Floorplan_STD
 - building_moving_sides
 - Space
- Safety
 - Security Checkpoint
 - Closed
 - Less Than 4 min
 - Between 4-10 min
 - Between 10-20 min
 - More than 20 min
 - Unknown
 - Fire Alarm
 - bg_fire_extinguishers
- Building Equipment
- Cadastre
- Grids
- Aerial

Map Position

Create Point Data

Quickview

- Concourse A
- Concourse A North
- Concourse B and C
- Concourse D
- Concourse E
- Terminal Area

Go To Update Add Remove

Private quickview

(+) Admin. quickview

Layer Set

- (*)Property

Re-Load Update Add Remove

(*) Private layer set

(+) Admin. layer set

Map Tools

Markup Tools

X: 1420104.750385, Y: 540584.859784 (FOOT) | 0 features selected | 1: 965.62 | 1088.00 x 561.60 (ft) | Powered by MapGuide

Floor: Floor 2

Space Area

	Location Code	AEGIS Room No	Interior Space Identifier	Short Name	Full Name	Description	Concourse	Room Type	CommRoom	Tenant	Status	Accessibility	Area	Exhibit J	Exhibit J Area	Exhibit K Join	Old Short Name	Older Short Name	New Short Name	Cleaning Responsibility	Exclude Area	Datalink ID	Loca
<input type="checkbox"/>	CLT_TERM000202010001	0001	1002MCM201	MCM201	100-MCM201	Mechanical Chase	M	Mechanical Chase	M2069	CLT	Active	Private	27.80	Mechanical		0	M2036		M2-MC02			2468	CLT
<input type="checkbox"/>	CLT_TERM000202010002	0002	1002MCM204	MCM204	100-MCM204	Mechanical Chase	M	Mechanical Chase	M2069	CLT	Active	Private	72.05	Mechanical	9999	313	M2231		M2-MC10			2469	CLT

(1 - 25 of 484 Records) | First Previous Next→ Show ALL Records

Real-Time Sensor Overlay

X·SPATIAL



Incidents Data



- Home
- Dashboard
- Map
- Service Requests**
- Incident Reports**
- Safety Hazards
- Other
- Inspections
- Work Orders
- Projects
- Assets
- Contacts Directory
- Security Badges
- Setup
- Trainings
- Documents
- Administration
- Reports Designer
- User Reports
- Analysis Reports

Incident Reports | Service Requests - Incident Reports

+ [Eye icon] [Dropdown arrow] [Calendar icon] [Location pin icon] [Download icon]

Priority	Actions	Service Request ID	Service Request Name	Priority	Date / Time of Incide	Updated On	Status	Hazard Type	Incident Reported By
▼ Priority: Critical - 1 item									
▼ Status: New - 1 item									
	[Edit] [List] [Add] [Comment] [Delete] [Share]	AIRCFT-DMG-000014	Aircraft Damage - 03/17/2023 - 09:03 AM	Critical			New	01 - Paved Areas	
▼ Priority: High - 1 item									
▼ Status: New - 5 items									
	[Edit] [List] [Add] [Comment] [Delete] [Share]	AIRCFT-DMG-000017	Aircraft Damage - 03/21/2023 - 06:16 AM	High	03/21/2023 12:00 PM		New	03 - Safety Areas	App
	[Edit] [List] [Add] [Comment] [Delete] [Share]	AIRCFT-DMG-000012	Aircraft Damage - 03/17/2023 - 04:43 AM	High	03/17/2023 04:47 AM		New	01 - Paved Areas	App
	[Edit] [List] [Add] [Comment] [Delete] [Share]	BRKNG-THFT-000004	Break-In/Theft - 03/15/2023 - 05:15 PM	High		03/15/2023	New	03 - Safety Areas	
	[Edit] [List] [Add] [Comment] [Delete] [Share]	DSBLD-ACRFT-000003	Disabled Aircraft - 03/15/2023 - 06:08 PM	High	03/30/2023 12:00 PM		New	11 - NAVAIDs	Admin
	[Edit] [List] [Add] [Comment] [Delete] [Share]	ALERT2-000005	Alert 2 - 03/15/2023 - 07:06 AM	High	03/15/2023 12:00 PM	03/16/2023	New	11 - NAVAIDs	Anand
▼ Priority: Low - 4 items									
▼ Status: Closed - 2 items									
	[Edit] [List] [Add] [Comment] [Delete] [Share]	WLDLF-STRK-000003	Wildlife Strike - 03/13/2023 - 01:14 PM	Low	03/13/2023 12:00 PM		Closed		Alfredo Mercado
	[Edit] [List] [Add] [Comment] [Delete] [Share]	AIRCFT-DMG-000009	Aircraft Damage - 03/16/2023 - 04:05 PM	Low	03/10/2023 12:00 PM	03/16/2023	Closed	02 - Unpaved Areas	Craig Nyarumbu
▼ Status: Completed - 3 items									
	[Edit] [List] [Add] [Comment] [Delete] [Share]	GNRL-INCNT-000001	General Incident - 01/27/2023 - 02:42 PM	Low	01/27/2023 01:26 PM	01/30/2023	Completed	Handling And Storing Of Hazardous Substances And Materials (Fueling Operations)	Robert Pratt

Incidents Data



- Dashboard
- Map
- Service Requests**
 - Incident Reports**
 - Safety Hazards
 - Operational Changes
 - Suggested Improvement
- Inspections
- Work Orders
- Projects
- Contacts Directory
- Security Badges
- Trainings
- Documents

Incident Service Requests | Service Requests - Incident Service Requests

Select Type of Incident

Favorite Tiles

Select a Record

Normal Tiles

General Incident	Wildlife Harassment	Wildlife Strike					
Aircraft: Alert 2	Aircraft: Alert 3	Aircraft: Incident	Aircraft: Damage	Aircraft: Disabled	Auto Accident	Fuel Spill	General Incident
Injury	Property Damage	Theft/Break-In	Trespassing	Vandalism	Wildlife Harassment	Wildlife Strike	

Incidents Data

- Home
- Map
- Dashboard
- Service Requests**
- Incident Reports
- Safety Hazards
- Other
- Inspections
- Work Orders
- Projects
- Assets
- Contacts Directory
- Setup
- Trainings
- Documents
- Administration
- Reports Designer
- User Reports

Details | Attachments | Associations | Comments | Communications

Organization: Operations

Service Request ID: AIRCRFT-DMG-000001

Service Request Name: Aircraft Damage - 12/14/2022 - 04:40 PM

Initiated By: Felipe Bergano

Date / Time of Incident: 12/14/2022 11:49 PM

Incident Reported By: Tenant

Location of Incident: Airfield

BRAA Notified Via: Notification Not Needed

Priority: 2 - High

Aircraft Issue: During transit there was wheel damage and aircraft collapsed

Aircraft Damage: Wheels, underneath cockpit

Shift: Morning Evening Overnight

Date / Time Reported: 12/14/2022 12:30 AM

Airfield Location: Runway Taxiway Other

BRAA Staff Notified: Robert Pratt

Status: New

Initiate SMS

Initiate Corrective Action Work Order

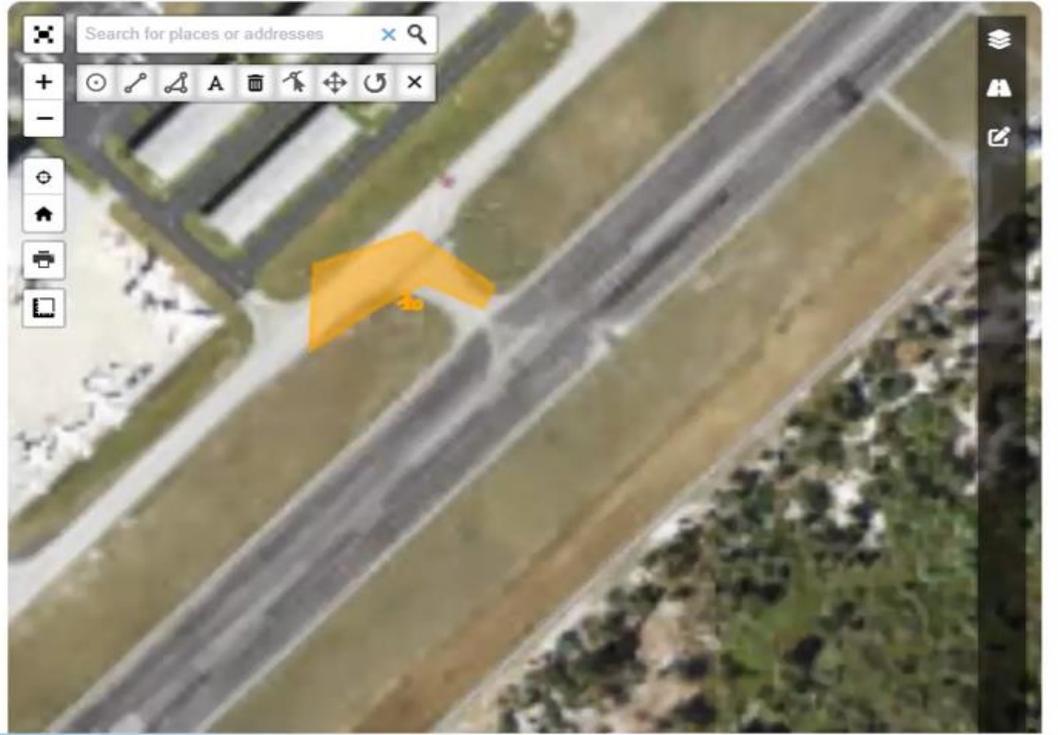
Send Email

Location Description: Near taxiway by the T hangars

Postal Address: Boca Raton Airport, 3700 Airport Rd, Boca Raton, FL, 33431, USA

Latitude: 26.37887

Longitude: -80.1077



Inspections Data



75 YEARS BOCA RATON AIRPORT

Hi, Good Morning
i3 Admin

Simplify i3

- Home
- Dashboard
- Map
- Service Requests
- Inspections**
 - Daily
 - Weekly
 - Monthly
 - Quarterly
 - Annual
 - All Inspections
- Work Orders
- Projects
- Assets
- Contacts Directory
- Security Badges
- Setup
- Trainings
- Documents
- Administration
- Reports Designer
- User Reports
- Analysis Reports

Select Type of Inspection | Inspections • Select Type of Inspection

Daily

Facility Inspection

Airfield Inspection

Weekly

Admin Building Inspection

ATCT Inspection

Customs Building Inspection

Electrical Vault Inspection

Gate Inspection

Vehicle Equipment Inspection

Monthly

PAPI Inspection

AWOS Inspection

EMAS Inspection

Quarterly

Fuel Storage Area Inspection

Mobile Fueler Inspection

Annual

Select a Record [dropdown] [grid icon] [list icon]

Inspections Data



10:22 AM Tue Jan 3

← ATCT Inspection (Weekly)

DETAILS ATTACHMENTS ASSOCIATIONS PROCEDURES COMMENTS COMMUNICATIONS

Exterior Inspection Items

General Condition

Good Fair Poor N/A

Tap mic to record comment

Grounds

Good Fair Poor N/A

Tap mic to record comment

Pavement

Good Fair Poor N/A

Tap mic to record comment

4:35 PM Wed Mar 22

← Map

Search

Point Polyline Polygon Annotation Clear Edit Bulk Clear

Show Open WO

Lat/Long: 26.377,-80.109

11:19 AM Tue Jan 3

← Airfield Inspection(Daily) | V1 | | Drafted

INFO COMMENTS

− Pavement lips over 3" *

#1.1 Pavements must be smooth

+ Work Order

− New Work Order(s)

Actions	Created Date	Work Order Id	Status	Assigne
	12/16/2022	WO-Corrective-000008	New	Felipe

Pavement area monitoring.jpeg

- + Hole - 5" diam. 3" deep *
- + Cracks/spalling/heaves *
- + FOD: gravel/debris/sand *
- + Rubber deposits *
- + Ponding/edge dams *
- + 2 - Safety Areas
- + 3 - Markings

Data Associations

- Home
- Dashboard
- Map
- Service Requests**
 - Incident Reports
 - Safety Hazards**
 - Operational Changes
 - Suggested Improve...
 - Security Badges
- Inspections
- Work Orders
- Projects
- Assets
- Contacts Directory
- Setup
- Garbage Log
- Leases
- Contacts
- Trainings
- Documents
- Administration
- Reports Designer
- User Reports
- Analysis Reports

Details Attachments **Associations** Comments Communications Procedures

All **Service Requests** Inspections Work Orders Projects Contacts Leases Assets

+ Inspections Association + Projects Association + Service Requests Association + Work Orders Association

Drag a column header here to group its column

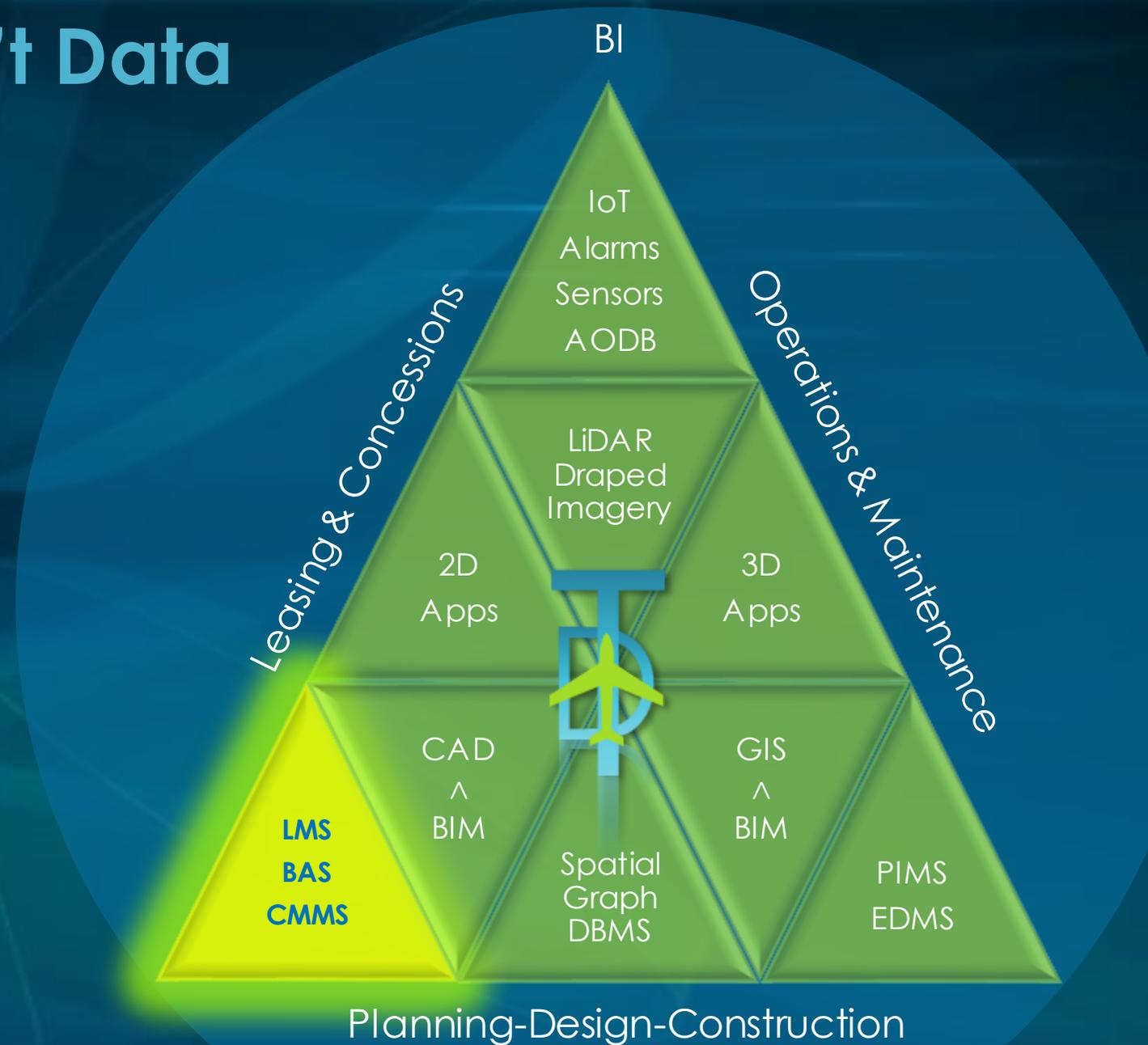
Select columns Actions +6 Search

<input type="checkbox"/>	Actions	Entity Type	Template Name	Created By	Created On	Updated On	Updated By
<input type="checkbox"/>	  	Work Orders	Corrective Action	Shekhar Deshmukh	03/23/2023	03/23/2023	Anand Rathod
<input type="checkbox"/>	  	Work Orders	Safety Hazard Mitigation	I3 Admin	04/04/2023		
<input type="checkbox"/>	  	Projects	Safety Mitigation Project	I3 Admin	04/04/2023		
<input type="checkbox"/>	  	Service Requests	Wildlife Harassment	Hannah Oakland	02/09/2023	03/27/2023	I3 Admin
<input type="checkbox"/>	  	Inspections	Facility Inspection (Daily)	Shekhar Deshmukh	03/24/2023	03/30/2023	Shekhar Deshmukh
<input type="checkbox"/>	  	Inspections	Facility Inspection (Daily)	Anand Rathod	03/22/2023	03/24/2023	Shekhar Deshmukh
<input type="checkbox"/>	  	Projects	Safety Mitigation Project	I3 Admin	04/04/2023		

10 Items per page 1 of 1 pages (7 items)

Integrating Asset Mgm't Data

- Leases & Concessions
- Building Automation
 - SCADA (HVAC/Electrical)
 - HVAC
 - Electrical & Lighting
 - People Movers
 - Escalators
 - Elevators
 - Moving Sidewalks
 - APMS
 - Jet Bridges
- Work Orders
- Condition Assessments



Leased Assets Data



Company: Massport
Facility: Logan International Airport

Level: Level 01 | Facility (8): Logan International Airport | Default Map | Buildings (3): Terminal A (Main Terminal) - Bldg 31 | Floors (4): 2 - LOGTERM-AMT2 | Rooms (220): 1 - LOGTERM-AMT20001 (68 sf)

- Search
- Company
- Home
- Company
- Agreement
- Revenue Forecast
- Recap
- Billing
- Facility
- Alerts
- Reports
- Concession
- Data Admin.
- System Admin.

Floor

Building ID: [Terminal A \(Main Terminal\) - Bldg 31](#)
 Floor Name: 2
 Floor Area: 154,785.00
 Rentable Floor Area: 67,356.00
 Map Layout: FLOORPLAN-TAL2
 Map Lower Left X-Coord: 785,046.40
 Map Upper Right X-Coord: 785,915.58

Facility Level: Level 02
 status: Operational

Location Code: LOGTERM-AMT2
 Map Lower Left Y-Coord: 2,957,710.39
 Map Upper Right Y-Coord: 2,958,638.60

Edit Erase Floorplan Geometry Record No. 1641 was last updated on 08/28/2019 at 02:58:24PM by kgabel

CLMS Room No	Location Code	Actual Room No	Room Description	Security	Room Origin	Cleaning Responsibility	Area	Room Type	Rate Code	Floor Type	Room Rentable	Recorded Area	Status	Maximo Room No.
1	LOGTERM-AMT20001	T2308	Emergency Electrical Closet	Post	Original Building	N/A	68.00	Non-Public		N/A	No	68.00		
2	LOGTERM-AMT20002	T2309	Electrical Room	Post	Original Building	N/A	156.00	Non-Public		N/A	No	156.00		
3	LOGTERM-AMT20003	EL4T06	Elevator Shaft	Post	Original Building	N/A	89.00	Elevator Shaft		N/A	No	89.00		
4	LOGTERM-AMT20004	T2421	Comm Room	Post	Original Building	Tenant	143.00	Office		N/A - Tenant Space	Yes	143.00		

Layers: Floor Plan, TSA Bag Belt, Base Map, Terminal Gates, Rooms, Actual Room Numbers, CLMS Room Numbers, Both Room Numbers, Security, Tenant Locations, MarketPlace Logan, L, Room Needs to be Cc, Cleaning Respons, Building Additions, Rentable Rooms, Fly Over Photo

Map Position: Assign Space, Assign Space to Leasehold, Point Dataset, Add Point, Delete Point(s), Move Point(s), Change Point(s) Operator, Point Type, Concession, Advertising Displays, Floor, Operated by, Massport

Quickview, Layer Set, Map Tools, Markup Tools

X: 785311.756326, Y: 2958352.429812 (FOOT) | 0 features selected | 1: 1349.33 | 1632.78 x 418.15 (ft) | Powered by MapGuide

Leased Assets Data



LAWA

Spatial Admin DDMS Admin

Hello Ahmad Maghboul

Home

Open Map

Facility

Los Angeles International Airport

LAX - Ground Lease

Facility Level

Level 01

Sector

Central Terminal Area

Building

Terminal 2

Floor

Departures - LAX000CTA00T203

Search

Data Explorer

- boundary
- buildings
- cadastre
 - cadastre_municipality_prop
 - cadastre_real_estate
- communications
- environmental_hazards
- fauna
- flora
- geodetic
- geology
- improvement
- land_status
- landform
- transportation
- utilities

Pavement Management

ELSEE

Mobile Data

Reports

Document Administration

Layers

- Ground Lease Areas
- Airport Sectors
- Sector Labels
- Airport Sectors
- Property Mgmt
- Billboards
- Leased - Unlease
- Leased
- City of Los Angeles
- Unleased
- TBD
- Easements and F
- Easement
- Right of Way
- TBD
- Leased - LAWA
- Contract Type
- BLDG
- GOVT
- GROUND
- LICENSE
- MOP
- RTOFWAY
- UTC
- Special Loader
- TBD

Datalink ID: 42792041
 Entity Type Name: lease_zone_area
 Type Discriminator: GDN_LEASE
 Acquired Date: 12-MAY-15
 Lease Expiration Date: 11-MAY-25
 Leaseholder Name: Nippon Cargo
 Contract No.: LAA-8855A
 Contract Type: REALESTATE - BLD
 Contract Admin: Dean Wahls
 Leasehold No.: 0001
 Leasehold Name: 6501 W Imperial
 Leasehold Size: 212625.1
 Area Square Feet: 212643
 Description: NIPPON CARGO

Map Position

Create Point Data

Add Point(s)

Multi-Point Mode

Point Classification

communications

communications_device

communications_antenna

Entity Attribute - Google Chrome

Not secure | airports.x-spatial.com/UMS/cfscripts/Forms/EntityType_Edit.cfm?RecordID=42792041&...

42792041, cadastre, cadastre_real_estate, lease_zone_area, cdrelpar

Location: LAX
 Created By: axmelikyan
 Date Created: 2020/01/21@07:06:04
 Last Edited By: axmelikyan
 Date Last Edited: 2021/05/21@11:28:31
 Quality Level: [Dropdown]
 DDMS Source: [Dropdown]
 Comment: [Text Area]
 Disposition: [Dropdown]
 Is Published: Y
 Type Discriminator: GDN_LEASE

Attributes | Documents (0)

Location Code: LAX00IMPW000081
 Acquired Date: 05/12/2015
 Lease Expiration Date: 05/11/2025
 Leaseholder Name: Nippon Cargo Airlines
 Operating Name: NCA
 Contract No.: LAA-8855A
 Contract Type: REALESTATE - BLDG
 Contract Admin: Dean Wahls
 Leasehold No.: 0001
 Leasehold Name: 6501 W Imperial Hwy - Cargo Land
 Leasehold Size: 212625.1
 Leasehold Size Unit Measure Code: Sq Ft
 Agreement No: 013782
 Cost Center: [Text Area]
 Subparcel No.: 000081
 Feature Description Text: [Text Area]
 Area Square Feet: 212643
 Area Acres: 4.88
 MLE Drawing Number: 20190119
 MLE Sheet Number: Sheet 2
 MLE Sheet Title: Imperial West
 Description: NIPPON CARGO
 Sector ID: 30388934

Required fields are shown with red label

OK Cancel

Data Administration View Feature Class: cadastre_real_estate

Sector	acquisition boundary area	easement right of way area	lease_zone_area	parcel point					
Location Code	Acquired Date	Lease Expiration Date	Leaseholder Name	Operating Name	Contract No.	Contract Type	Contract Admin	Leasehold No.	Leasehold Name
<input type="checkbox"/>	LAX000CTA000001		City of Los Angeles	Los Angeles World Airports	UNASSIGNED SPACE	SPECIAL - LOADER		0030	Laydown
<input type="checkbox"/>	LAX000CTA000003		City of Los Angeles	Los Angeles World Airports	UNASSIGNED SPACE	SPECIAL - LOADER		0001	Cost Center None
<input type="checkbox"/>	LAX000CTA000011		City of Los Angeles	Los Angeles World Airports	UNASSIGNED SPACE	SPECIAL - LOADER		0030	Laydown
<input type="checkbox"/>	LAX000CTA000012		City of Los Angeles	Los Angeles World Airports	UNASSIGNED SPACE	SPECIAL - LOADER		0030	Laydown

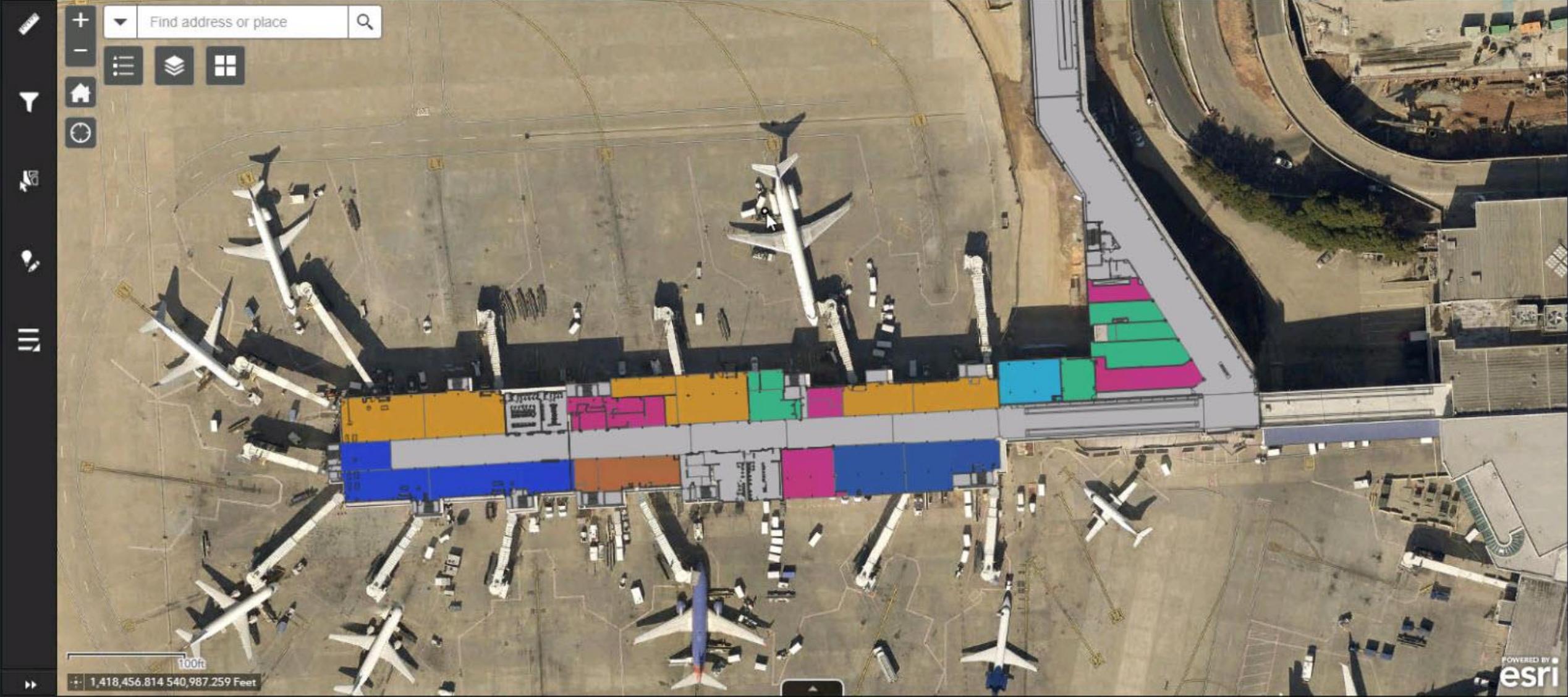
(1 - 25 of 973 Records) First Previous Next+ Show ALL Records

Leased Assets Data

X·SPATIAL

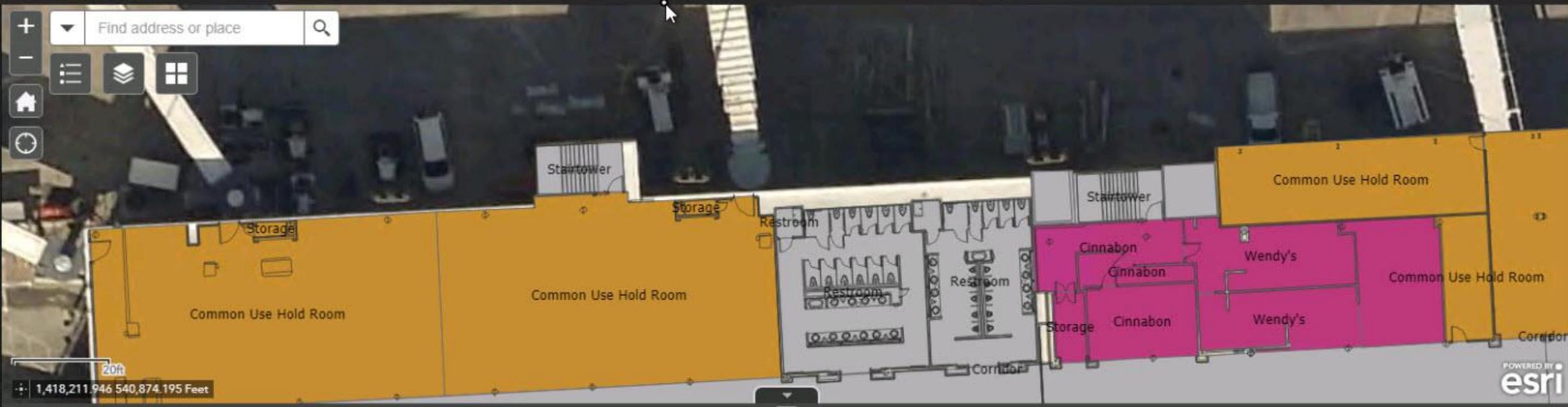


Terminal and Concourses Web Application X-Spatial



Leased Assets Data

Terminal and Concourses Web Application X-Spatial



FloorPlan Rooms

Options Filter by map extent Zoom to Clear selection Refresh

LeaseTermination	Tenant	Description	OBJECTID_1	A_LOC_ID	Location Code	AEGIS Room No	Interior Space Identifier	Short Name	Full Name	Concourse	Room Type	CommRoom	Status	Access
December 31, 2021	CLT	Mechanical Chase	96	CLT_TERM0003C	CLT_TERM0003C	2.000000	1002A2-MC07	A2-MC07	100-A2-MC07	A	Mechanical Chase	A1483	Active	Private
October 1, 2021	HMS Host	Common Use Hold Room	104	CLT_TERM0003C	CLT_TERM0003C	10.000000	1002A2-0420	A2-0420	100-A2-0420	A	Hold Room	A1483	Active	Private

48 features 0 selected

Pavement Data

File Edit View Favorites Tools Help

x-S ArcGIS x-Spatial - Home LAWA DDMS MPA DDMS MGP CLMS Login AviSoft AEGIS Login

IMTG

Spatial Admin DDMS Admin

Hello Ahmad Maghboul

Logoff

Home

Open Map

Facility

Van Nuys Airport

VNY_APMS

Parcel

Select a Parcel

Building

Select a Building

Floor

Select a Floor

--Select a Map--

Search

Data Explorer

Pavement Management

Inventory Tree

Inspections/Export

Maintenance Report

ELSEE

Mobile Data

Reports

Document Administration

Spatial Data Administration

Geodatabase Administration

System Administration

Layers

- Aerial
- Airfield
- Buildings
- Pavement
 - Inspection
 - Asphalt Distress
 - Concrete Distress
 - Inventory
 - Sub-sample
 - Sample
 - Section
 - Branch
 - Surface Type
 - Use
 - Maintenance
 - Asphalt Distress
 - Concrete Distress

9202010, transportation, trans_pavement_distress, distress_point_pcc_ensp, POINT, trpvinspcc

Location: VNY
 Created By: behzad
 Date Created: 2013/12/10@08:42:34
 Last Edited By: behzad
 Date Last Edited: 2013/12/10@08:42:34
 Reason Code:
 Quality Level: D - DERIVED
 Ddms Source:
 Qa Status: 1 - GEOMETRY ONLY
 Owner Operator: LOW
 Leaseholder Name:
 Comment: 12/10/2013 8:42:34 AM
 Disposition:
 Is Published: N

Attributes Documents (0)

Primary Key Identifier: 9202010
 Distress Type: 62 - CORNER BREAK [SLABS]
 Distress Severity: L
 Distress Comments:

ID: 9202017
 Type: distress_point_pcc_ensp
 SubType: POINT
 Comment: 12/10/2013 8:35:04 AM
 Distress Type: 74 - Joint Spalling [SLABS]

Aerial Photo Date: May 2nd, 2013

1 Concrete Distress selected | 1: 287.52 | 342.68 x 163.48 (ft) | Kelar Microwizard

Quickview
 Layer Set
 Map Tools
 Zoom Scale
 Zoom Selection
 Zoom to Initial View
 Zoom to Previous View
 Zoom to Next View
 Buffer
 Select within
 Clear Selection
 Measure Dist
 Measure Area
 Get Length
 Get Area
 Get Coordinates
 Printable Page
 Dwf Plot
 Markup Tools

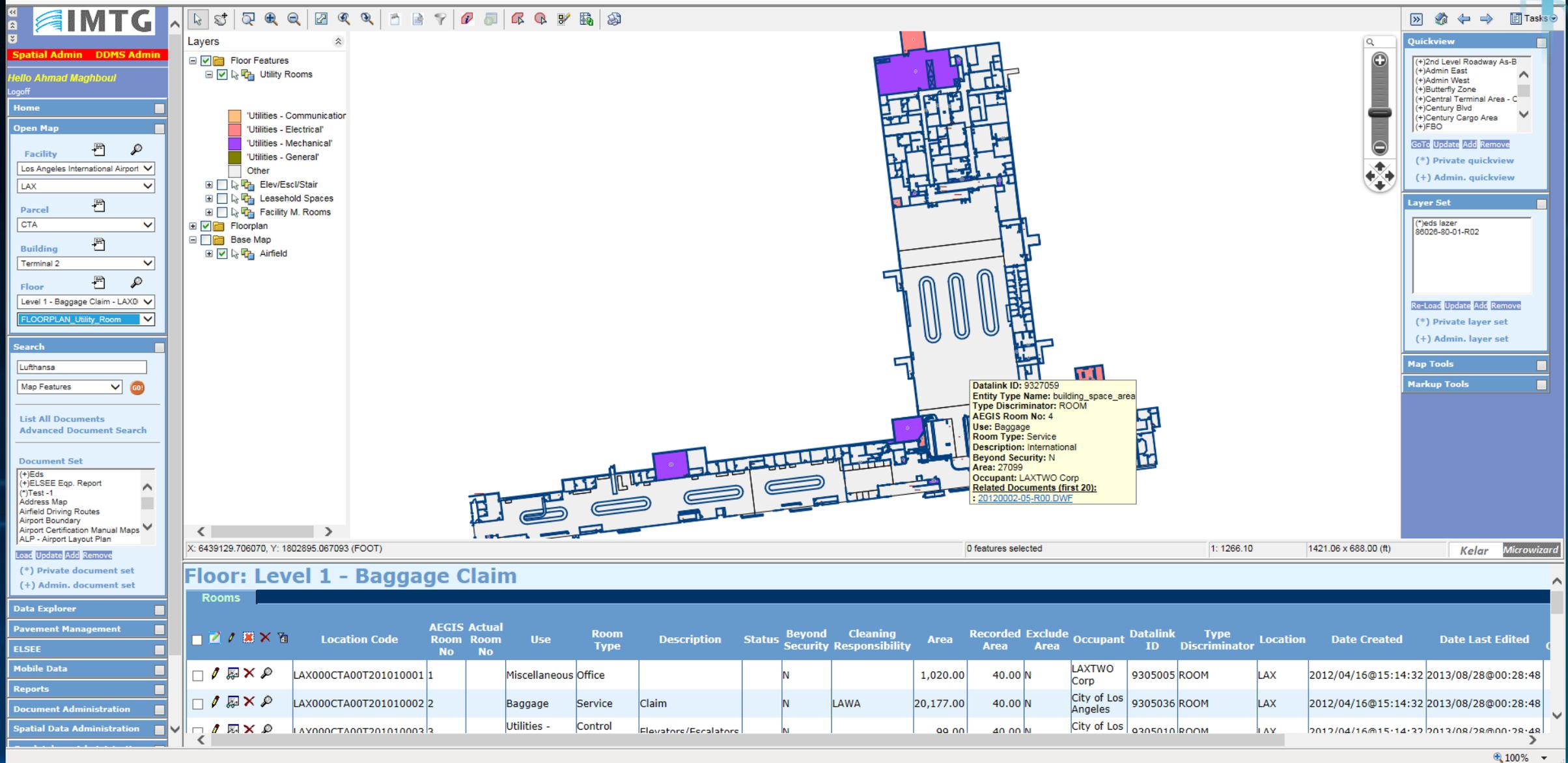
Pavement Inspections

Printer Friendly Version

Inspection Description	Inspection Date	Sample Date From	Sample Date To	Last Updated by	Last Updated on
VNY Inspection	12/10/2013	12/01/2013	12/31/2013	behzad	01/17/2014
2013-14 Annual Inspection	12/04/2013	10/01/2013	02/01/2014	behzad	01/03/2014

(2 Records)

Electrical Data



Layers

- Floor Features
 - Utility Rooms
 - 'Utilities - Communication'
 - 'Utilities - Electrical'
 - 'Utilities - Mechanical'
 - 'Utilities - General'
 - Other
- Elev/Esc/Stair
- Leasehold Spaces
- Facility M. Rooms
- Floorplan
- Base Map
- Airfield

Quickview

- (+) 2nd Level Roadway As-B
- (+) Admin East
- (+) Admin West
- (+) Butterfly Zone
- (+) Central Terminal Area - C
- (+) Century Blvd
- (+) Century Cargo Area
- (+) FBO

Layer Set

- (*) Jeds lazer 88028-80-01-R02
- (*) Private layer set
- (+) Admin. layer set

Map Tools

Markup Tools

Data popup:

- Datalink ID: 9327059
- Entity Type Name: building_space_area
- Type Discriminator: ROOM
- AEGIS Room No: 4
- Use: Baggage
- Room Type: Service
- Description: International
- Beyond Security: N
- Area: 27099
- Occupant: LAXTWO Corp
- Related Documents (first 20): 20120002-05-R00.DWF

Floor: Level 1 - Baggage Claim

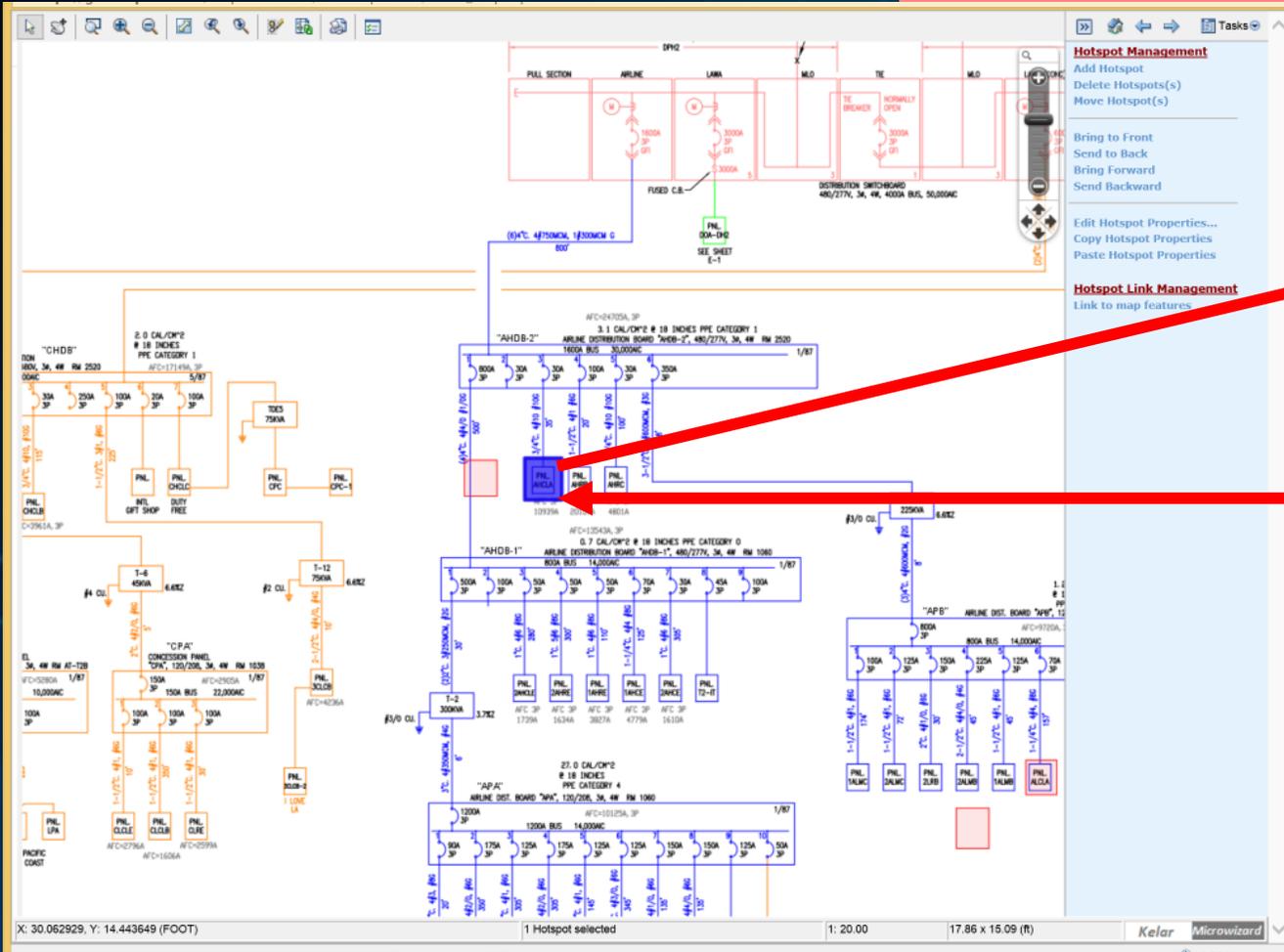
	Location Code	AEGIS Actual Room No	Room No	Use	Room Type	Description	Status	Beyond Security	Cleaning Responsibility	Area	Recorded Area	Exclude Area	Occupant	Datalink ID	Type Discriminator	Location	Date Created	Date Last Edited
<input type="checkbox"/>	LAX000CTA00T201010001	1		Miscellaneous	Office			N		1,020.00	40.00	N	LAXTWO Corp	9305005	ROOM	LAX	2012/04/16@15:14:32	2013/08/28@00:28:48
<input type="checkbox"/>	LAX000CTA00T201010002	2		Baggage	Service	Claim		N	LAWA	20,177.00	40.00	N	City of Los Angeles	9305036	ROOM	LAX	2012/04/16@15:14:32	2013/08/28@00:28:48
<input type="checkbox"/>	LAX000CTA00T201010003	3		Utilities -	Control	Elevators/Escalators		N		99.00	40.00	N	City of Los Angeles	9305010	ROOM	LAX	2012/04/16@15:14:32	2013/08/28@00:28:48

Integrated Electrical Panel Data



Mapped Electrical Panels with 2-Way
Hyperlinked One-Line Diagrams

1



Hotspot Management
Add Hotspot
Delete Hotspots(s)
Move Hotspot(s)

Bring to Front
Send to Back
Bring Forward
Send Backward

Edit Hotspot Properties...
Copy Hotspot Properties
Paste Hotspot Properties

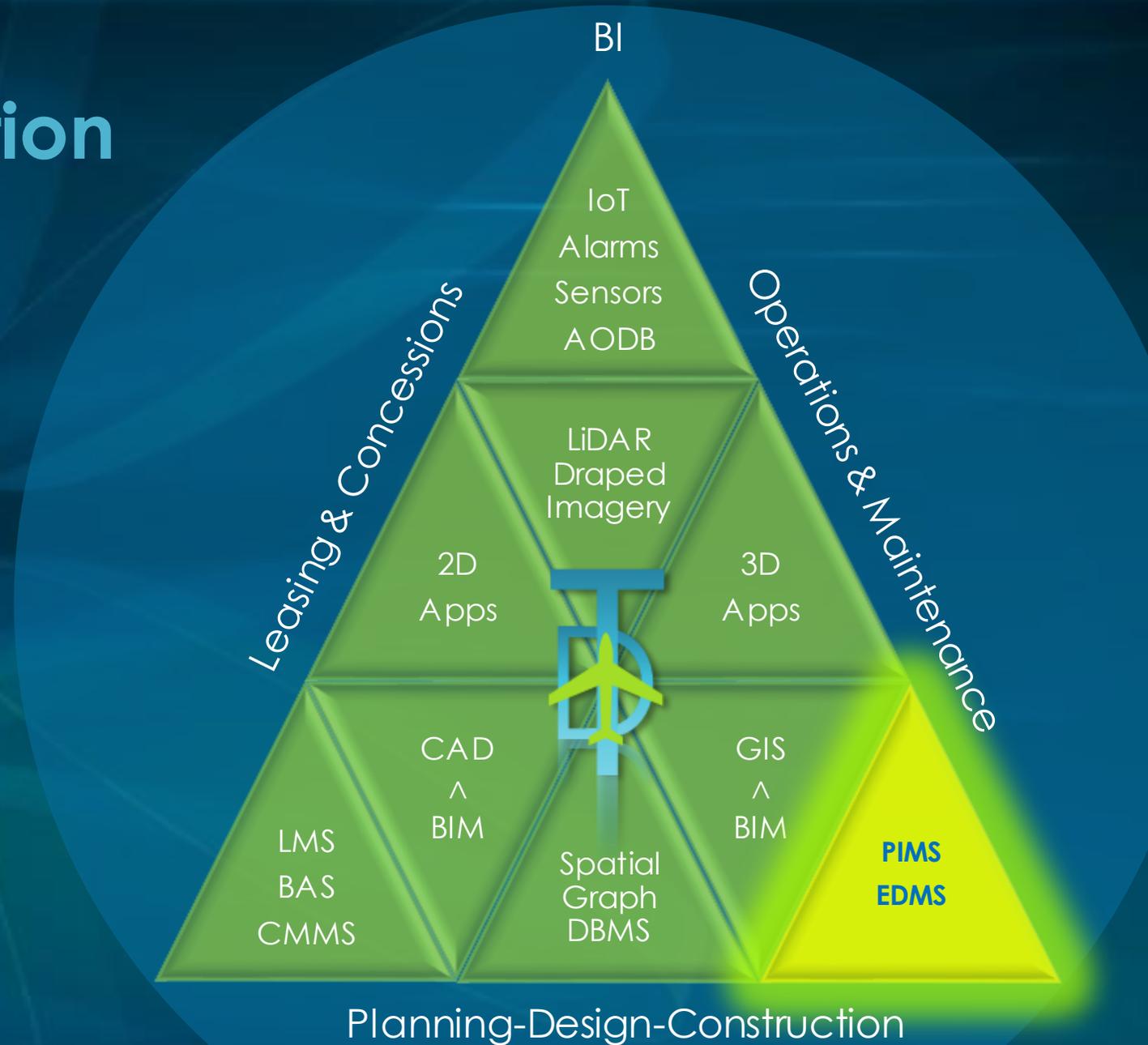
Hotspot Link Management
Link to map features

Datalink ID: 11954082
Entity Type Name: electrical_panel_area
Type Discriminator: NORMAL_PWR
DDMS Source: [2021515](#)
Comment: AHCLA
Panel Name: AHCLA
Related Documents (first 20):
: [2021511_AHCLA_1_T2 Equip Assessment Report 2009-11-01 342.pdf](#)
Hyperlinked Drawings:
[20060029A-11-E03 - Panel AHCLA \(4\)](#)
[20060029A-12-E04 - Panel Sch AHDB - AHCLA \(3\)](#)

2

Project Information & Electronic Documentation

- ALP Change Requests / 7460s
- BIM Design & Construction
- Construction Logistics
- Construction Photos w/LiDAR
- Survey Data
- Operational Readiness Activation Training (ORAT)
- As-Builts / O&M Manuals



Project Data



- Sunshine Airport
- Dashboard
- Projects
- Assets
- Service Requests
- Work Orders
- Lease
- Documents
- Maps
- Inspections
- Timesheets
- Contacts
- Funds
- Trainings
- Reports
- Analysis Report
- Setup

#YYC-0024 | New air traffic control tower.

Dashboard Info Pictures Phases/WBS Config Funds Budgets Schedule Milestones POs Payments Contacts Documents Notes Associations History

Organization Required	Sunshine International Airport +	Parent Program	+
Project ID	YYC-0024	Alternate ID	YYC-0024 8/10
Project Group	Design x	Project Name Required	New air traffic control tower.
Project Type	CIP x	Project Manager Required	EPIC Demo x
Project Status	Active x	Projected Start Date	09/01/2021 10/10
Start Date Required	09/01/2021 x	Start Time	9/9/2021 12:00 AM x
Estimated Completion Date Required	02/26/2022 x	Actual Completion Date	Select Actual Completion Date x
End Time	Select End Time x	Work Type	<input checked="" type="checkbox"/> Daily <input type="checkbox"/> Continuous
Days of the Week	7 1/50	Reference	Enter Reference 0/100
Closure Required	Enter Closure Required 0/200	CIP_Number	123-4546 8/10
YYC Business Owner/Tenant	868-686-6464	GL Code	2132123 7/10
Work Occurring	Air traffic controllers at Calgary International Airport (YYC) are handling flights from a new air traffic control tower. At over 300 feet high (270 feet at eye level in the cab), it is the highest free-standing tower of its kind in Canada.		

Location Description

2000 Airport Rd NE, Calgary, AB T2E 6W5, Canada

Postal Address

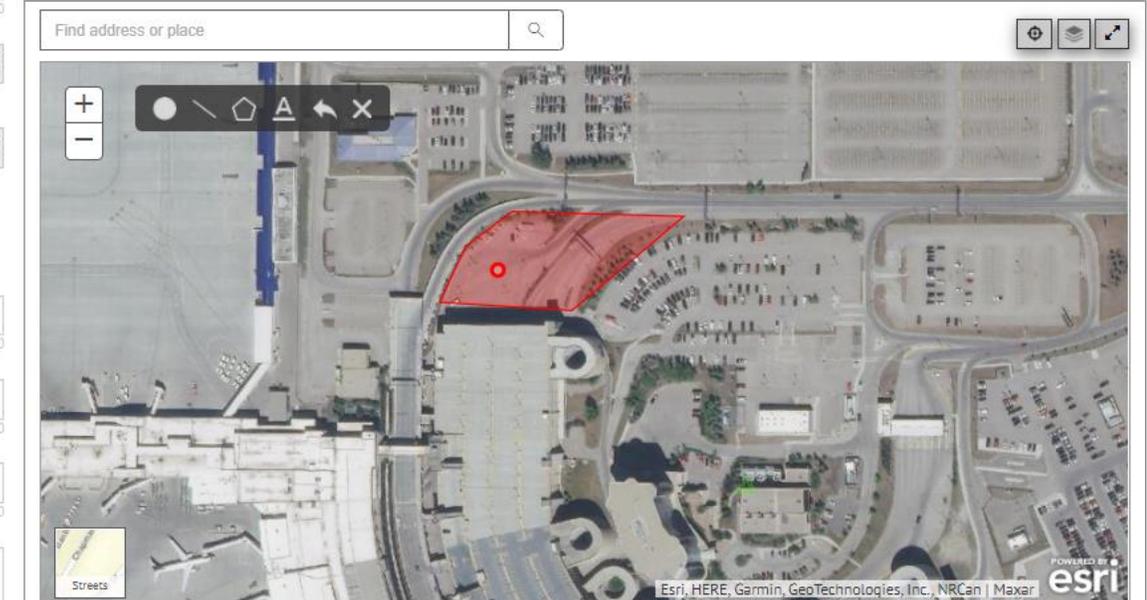
Airport Rd NE, Calgary, AB, T2E, CAN x

Map Address

Airport Rd NE, Calgary, AB, T2E, CAN

Latitude: 51.1338276 

Longitude: -114.0102547



Project Location & Timing (Logistics)



Project Start Date

Today Next 7 Days Next 30 Days Next 60 days Next 90 days Next 120 days Next 365 days Date Range

9/1/2021

Select End Date

Generate Report

Project Status

Planned x Active x Complete

November 2021

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

today

Find address or place

Select Area Layers Tools

Layers

ALL Filtered

- Calgary International Airport
 - Projects
 - APO - Airport OPS Project
 - CIP - Tenant Project
 - FAC - Facilities Project
 - GLC - Capital Project
 - GWO - Groundside Maintenance Pr
 - IOC Project
 - MWO - Airside Maintenance Projec
 - Work Orders
 - BaseLayer
 - YYC CAD
 - SDS20210216-105442-04mrv-23 - tem

Project Location & Timing (Logistics)



Simplify i3® All Search for..

Project Start Date Today Next 7 Days Next 30 Days Next 60 days Next 90 days Next 120 days Next 365 days Date Range

Project Status

Find address or place

Calgary International Airport

Fire Sprinkler Protection System (1 of 2)

Project ID: GLC - Capital Project-0023
Status: Planned
Start Date: 05/03/2021
Estimated Completion Date: 12/17/2021
Zoom to

Select Area Layers Tools

Layers

All Filtered

- Calgary International Airport
 - Projects
 - APO - Airport OPS Project
 - CIP - Tenant Project
 - FAC - Facilities Project
 - GLC - Capital Project
 - GWO - Groundside Maintenance Pr
 - IOC Project
 - MWO - Airside Maintenance Projec
 - Work Orders
- BaseLayer
 - YYC CAD
 - SDS20210216-105442-04arv-aa - terr
 - SDS20210216-105442-04dep-aa - ter
 - SDS20210216-105442-04mez-aa - te
 - SDS20210216-105442-04utl-aa
 - SDS20210216-105442-20arv-aa
 - SDS20210216-105442-20dep-aa

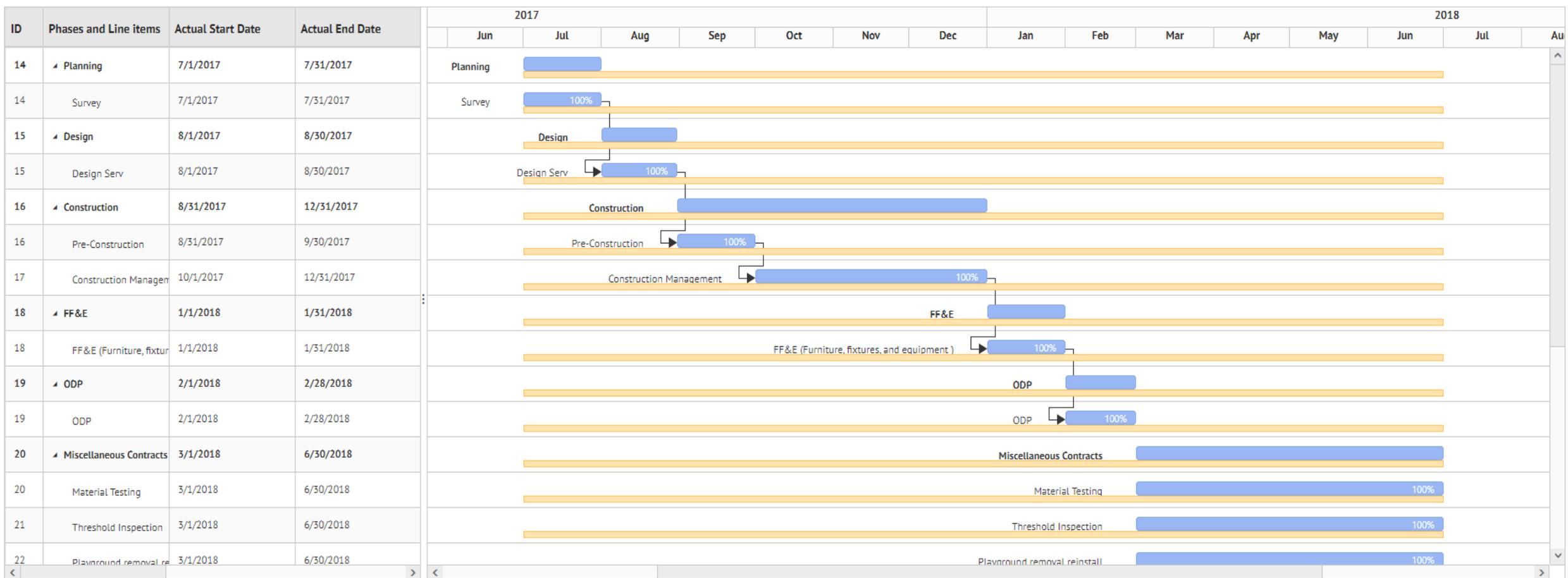
Project Scheduling



Back

#CAPEXP-0058 | Millennium MS

- Dashboard
- Info
- Phases
- Funds
- Budgets
- Schedule
- Milestones
- Contacts
- Documents
- Purchase Orders
- Invoices
- Notes
- Associations



Project Photos

Back

#Insp-0003 | Insp 003 Project

Info Pictures Documents

Pictures



2021-10-14_16-15-4...

Annotate Image



Note: Please click on save to update your changes.

Cancel Save

Comments

- 1** Ellana Moncaleano commented
Lining is Incompleted
10/15/2021 10:31:56
- 2** Ellana Moncaleano commented
Silt fence is missing
10/15/2021 10:32:52
- 3** Ellana Moncaleano commented
10/20/2021
10/20/2021 13:43:25

No Audios are available for Insp 003 Project Dean Road You can add a new Audio by clicking Record Audio.

Record Audio

Project Documentation



Simplify i3® All Search for. SCS (DEMO) ▶ Default ▶ Millennium MS ▶ Documents ▶ Explorer

#CAPEXP-0058 | Millennium MS Upload

Dashboard Info Phases Funds Budgets Schedule Milestones Contacts Documents Purchase Orders Invoices Notes Associations

Explorer Expiring Documents

Millennium MS

Search

- Millennium MS
 - Bid Docs
 - POs
 - Invoices
 - Schedule of Values
 - Comment Attachments
 - Contract Docs
 - Construction
 - Design
 - Inspection Attachments
 - Note Attachments
 - Project
 - Construction
 - Electrical
 - Mechanical
 - Pictures
 - Design
 - Project Setup
 - Budget
 - Meeting Notes
 - Project Plan
 - Site Surveys

Name	Type	Date modified
Bid Docs	Folder	05/05/2019 08:17:41
Comment Attachments	Folder	05/01/2019 09:30:59
Contract Docs	Folder	05/05/2019 08:18:19
Inspection Attachments	Folder	05/01/2019 09:30:59
Note Attachments	Folder	05/01/2019 09:30:59
Project	Folder	05/05/2019 08:18:51
20190319_Req68_Construction Report 2018-19 Projects.pdf	File	05/05/2019 07:57:42
nmms_08202018_01.jpg	File	05/05/2019 09:02:56
nmms_08202018_02.jpg	File	05/05/2019 09:02:56
SMS Canopy Permit 2510.pdf	File	11/16/2019 12:50:52

10 items : 1 item selected 70.30 KB

Wharton-Smith, Inc. Millennium Middle School

Comment: No Comment Provided.
File Size: 70.30 KB File Type: .jpg
Uploaded by Shreyas Kulkarni on 05/05/2019 09:02:56
Updated by Shreyas Kulkarni on 05/05/2019 09:02:56

Document & Drawings Mgm't

- ➔ File
- ➔ Attribute
- ➔ Search & Retrieve

Document Administration

Update Search Context

Document Types
Attribute Groups
Document Metadata
Document Metadata Domains

Folder Views

DDMS

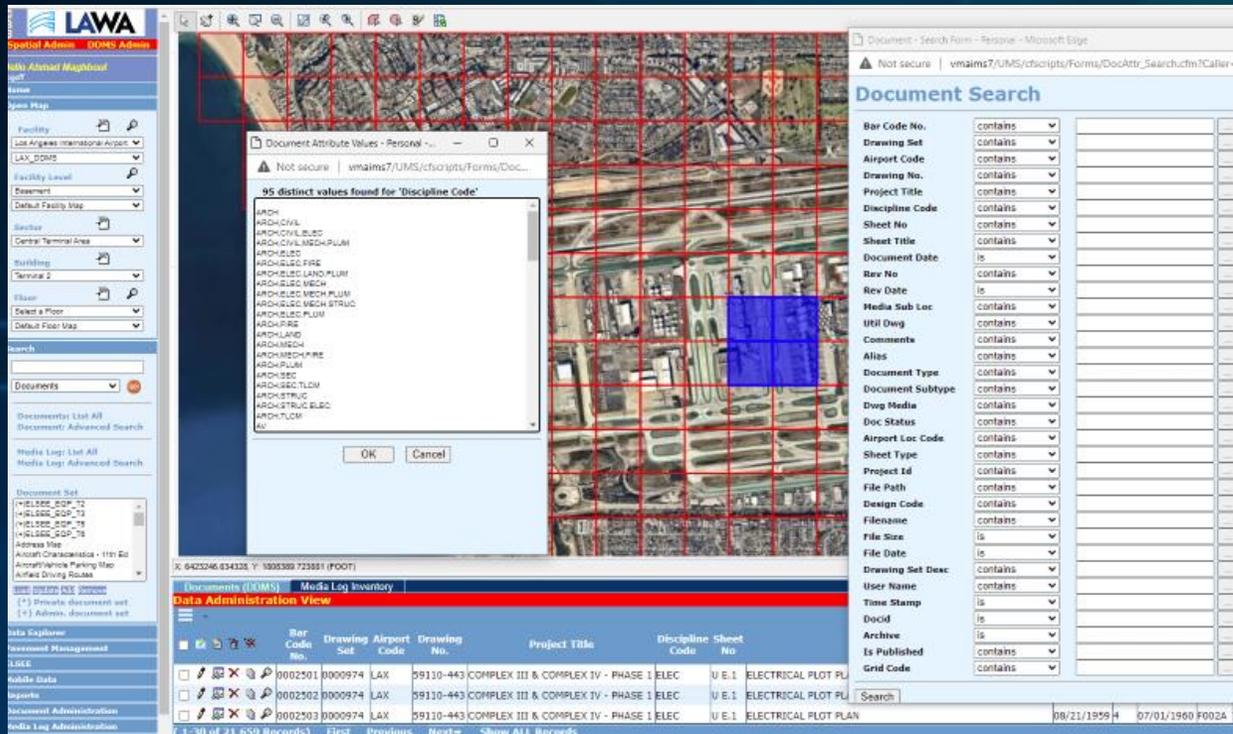
Home | Overview Guide | Logoff

Document Set Folder View

Building Name, Project Type, Sheet Type

- + Administration Bldg (6)
- + Airport Station (13)
- + Alamo Rent A Car (54)
- + All Hangers Terminals Utility (1)
- Amelia Earhart Bldg Support (241)
 - + Asbuilt (69)
 - Architectural (21)
 - Electrical (8)
 - Fire Protection (3)
 - Hvac (5)
 - Landscape (8)
 - Mechanical (1)
 - Plumbing (4)
 - Structural (1)
 - Title (1)
 - + Taa_As (85)
 - + Taa_Des (35)

- List Document Set Drawings
- Download Files (Zip)
- Export Query Result to Excel
- Print Query result (PDF)
- Add files to Document Set
- Remove files from Document Set



Document Search

Bar Code No. contains

Drawing Set contains

Airport Code contains

Drawing No. contains

Project Title contains

Discipline Code contains

Sheet No. contains

Sheet Title contains

Document Date is

Rev No. contains

Rev Date is

Media Sub Loc contains

Util Dwg contains

Comments contains

Alias contains

Document Type contains

Document Subtype contains

Dwg Media contains

Doc Status contains

Airport Loc Code contains

Sheet Type contains

Project Id contains

File Path contains

Design Code contains

Filename contains

File Size is

File Date is

Drawing Set Desc contains

User Name contains

Time Stamp is

DocId is

Archive is

Is Published contains

Grid Code contains

airports.x-spatial.com/UMS/cfscrip.../Forms/SDS_Domain_Result.cfm?RecordID=d_ddms_drw_m...

Domain: DDMS - List of drawing media

	Value	
BRF	BROWN FILM	
DISK	OPTICAL MEDIA	
ELC	ELECTRONIC	
LIN	LINEN	
MICR	MICROFILM/APERTURE CARD	
MICRO	MICROFILM/APERTURE CARD	
MYL	MYLAR	
PAP	BOND/PAPER	
PHO	PHOTO	
SEP	SEPIA	
SOS	FLAG FOR FURTHER RESEARCH	
VEL	VELLUM	

Attributes Data Structure



- 75 out-of-the-box attributes for use
- May be reduced or expanded
- LAX has activated these 34 attributes

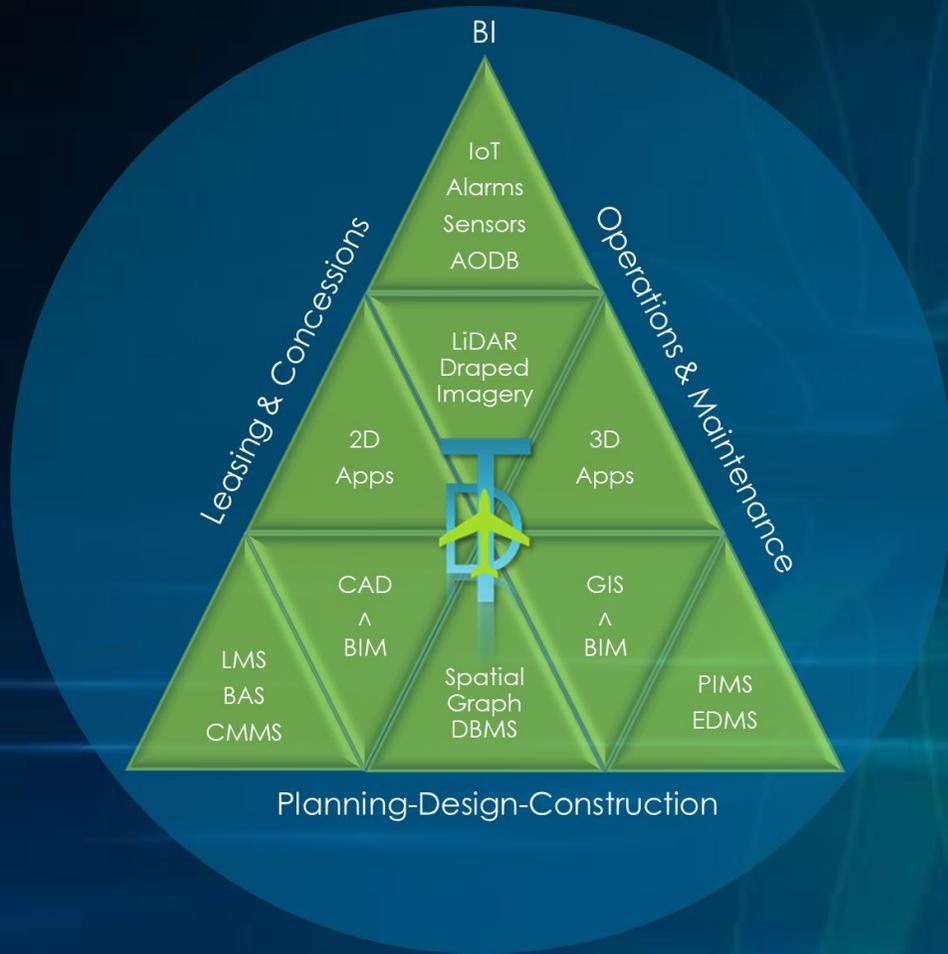
Document Search

Bar Code No.	contains	▼
Drawing Set	contains	▼
Airport Code	contains	▼
Drawing No.	contains	▼
Project Title	contains	▼
Discipline Code	contains	▼
Sheet No	contains	▼
Sheet Title	contains	▼
Document Date	is	▼
Rev No	contains	▼
Rev Date	is	▼
Media Sub Loc	contains	▼
Util Dwg	contains	▼
Comments	contains	▼
Alias	contains	▼
Document Type	contains	▼
Document Subtype	contains	▼

Dwg Media	contains	▼
Doc Status	contains	▼
Airport Loc Code	contains	▼
Sheet Type	contains	▼
Project Id	contains	▼
File Path	contains	▼
Design Code	contains	▼
Filename	contains	▼
File Size	is	▼
File Date	is	▼
Drawing Set Desc	contains	▼
User Name	contains	▼
Time Stamp	is	▼
Docid	is	▼
Archive	is	▼
Is Published	contains	▼
Grid Code	contains	▼

Search

Webinar Outline



2. Jul 26: Information Integration

- ➔ Objective & Introductions
- ➔ Disparate Information Correlation via Spatial Common Denominator
- ➔ Multi-Dimensional Information Association
 - ➔ BIM-CAD-GIS-LiDAR with Draped Imagery
 - ➔ IoT Devices-Sensors-Alarms...
 - ➔ Documents-Files-Photos-Videos...
 - ➔ Process Workflows-Communications-Tasks...

Enterprise BI Analytics



- Airport Digital Twin Rolls Up to Provide Business Intelligence (BI)
- Airport Enterprise BI Requires various Analytics Correlation via Spatial Common Denominator
- Strong Spatial Analytics Tools Needed

BI

List View

- Home
- Map
- Assets
- Service Requests
- Work Orders**
 - Corrective Action**
 - Safety Hazard Mitigation
 - Preventive Maintenance
 - Training/Communication
 - All Work Orders
- Projects
- Inspections
- Leases
- Contacts
- Setup
- Trainings
- Documents
- Administration
- UserReports

Corrective Action | Work Orders - Corrective Action

+ ▼ 📄 📅 🗨️ 🔍

Actions	Work Order ID	Work Order Name	Priority	Due Date	Status	Assigned To	General Description	Age[Days]	Postal Address	Attachments
▼ Status: Active - 7 items										
     	WO-Corrective-000004	Aircraft Collision Through Fence	1 - Critical	08/28/2022	Active	Airport Demo	Aircraft Collision Through Fence	58		0
     	WO-Corrective-000018	Ramp Repair	2 - High	08/26/2022	Active	Manisha Wangikar		0		0
     	WO-Corrective-000009	Taxiway Signage Light Is Out	2 - High	08/05/2022	Active	Felipe Bergano	Signage Light Is Not Functioning And Needs To Be Repaired	56		0
     	WO-Corrective-000003	Repaint Runway Markings	2 - High	08/26/2022	Active	Felipe Bergano		58		0
     	WO-Corrective-000008	Runway Marker Damaged	2 - High	08/02/2022	Active	Felipe Bergano		57		0
     	WO-Corrective-000001	Repair Airfield Pavement	2 - High	08/12/2022	Active	Aviation Demo		69		0
     	WO-Corrective-000019	O&M - 08/24/2022 - 09:52 PM	3 - Medium		Active	Felipe Bergano	Cracks Noticed	0	Valley Int'l Airport, 3002 Airport Dr, Harlingen, TX, 78550, USA	2
▼ Status: Closed - 2 items										
     	WO-Corrective-000002	Replace Signage Light	3 - Medium	07/20/2022	Closed	Airport Demo		58		0
     	WO-Corrective-000010	Daily Wildlife 1	4 - Low	07/29/2022	Closed	Airport Demo	During The Daily Wild Life Inspection, Bird Nests Were Found Too Near The Runway	31		0

⏪ < 1 > ⏩ 20 Items per page 1 of 1 pages (18 items)

Dashboard View



Valley International Airport Reports

Reports My Favorite Reports Standard Reports Scheduled Reports Inspection Reports

Work Order Aging Report

Export Print

Duration Today Past 7 Days Past 30 Days Past Quarter Past Year Date Range

Inspection #	Work Order #	WO Created By	WO Created Date	WO Assigned To	Days Open
139DLY-0218	WO-0074	ARFF Department	03/11/2021	Albert Cano	0
139DLY-0232	WO-0077	ARFF Department	03/16/2021	Albert Cano	0
139DLY-0235	WO-0082	ARFF Department	03/17/2021	Albert Cano	2
139DLY-0241	WO-0083	ARFF Department	03/19/2021	Albert Cano	0

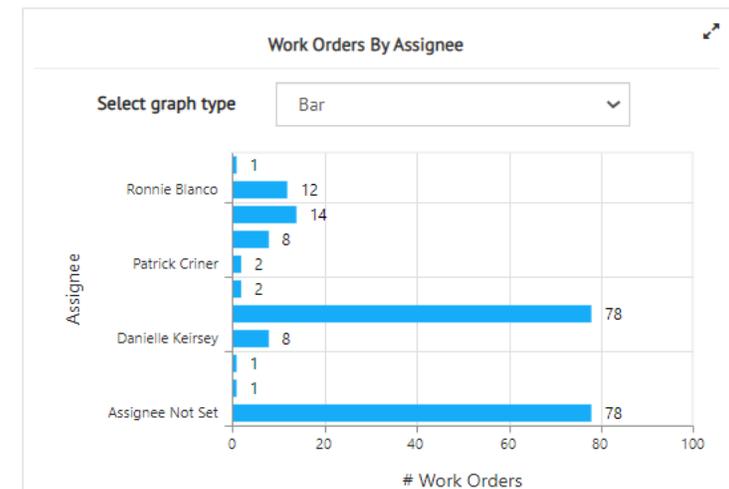
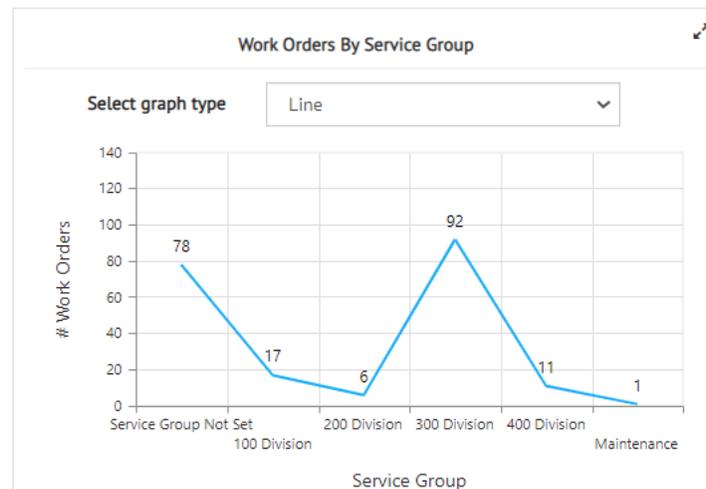
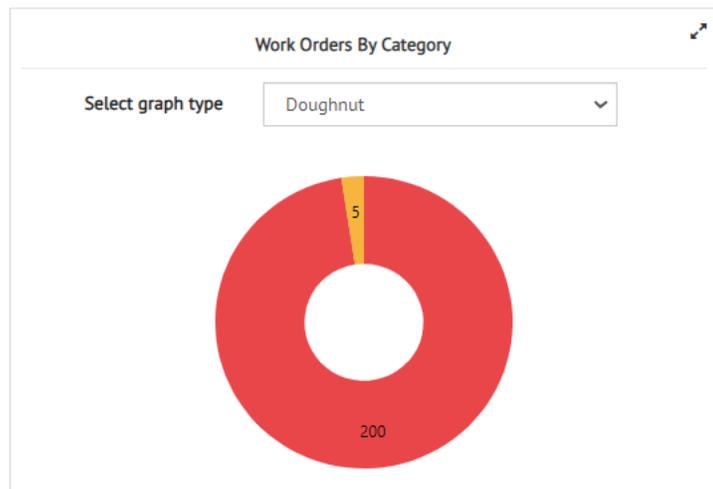
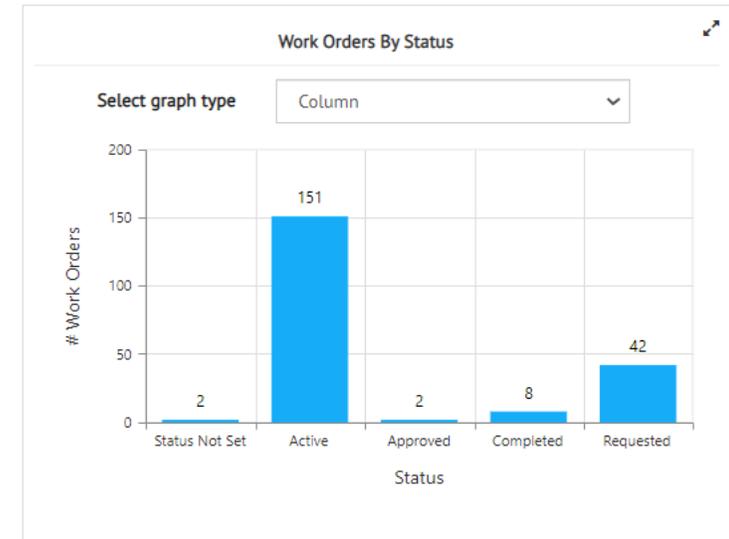
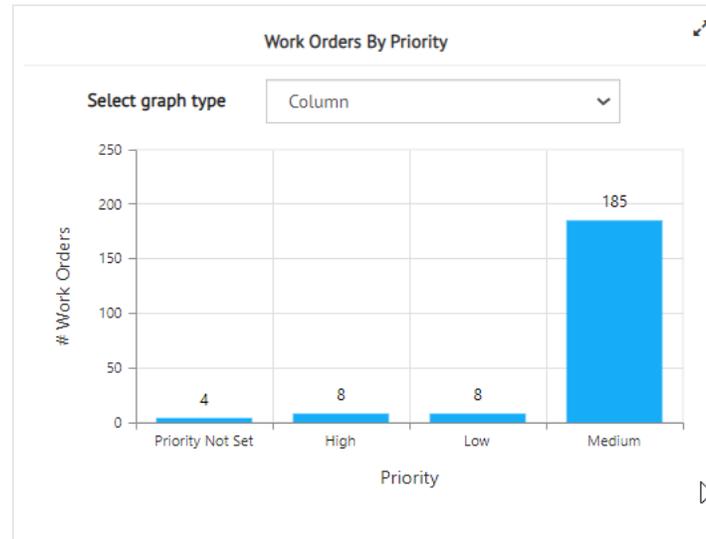
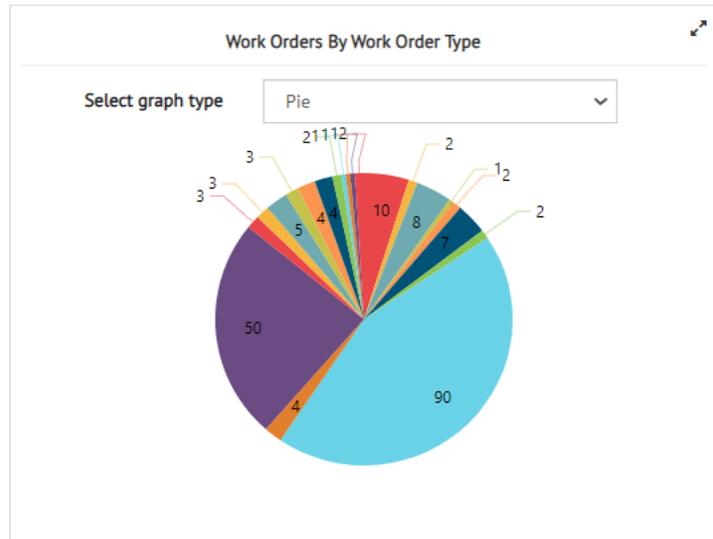


Dashboard View



- Sunshine Hill
- Dashboard
- Contracts
- Projects
- Assets
- Service Requests
- Work Orders
- Maps
- Contacts
- Funds
- Inspections
- Reports
- Setup

Graph



Dashboard View



Work Orders Dashboard

Save View

ACTIVE WORK ORDERS 4

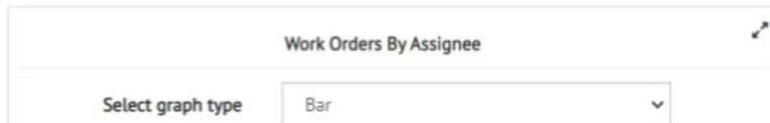
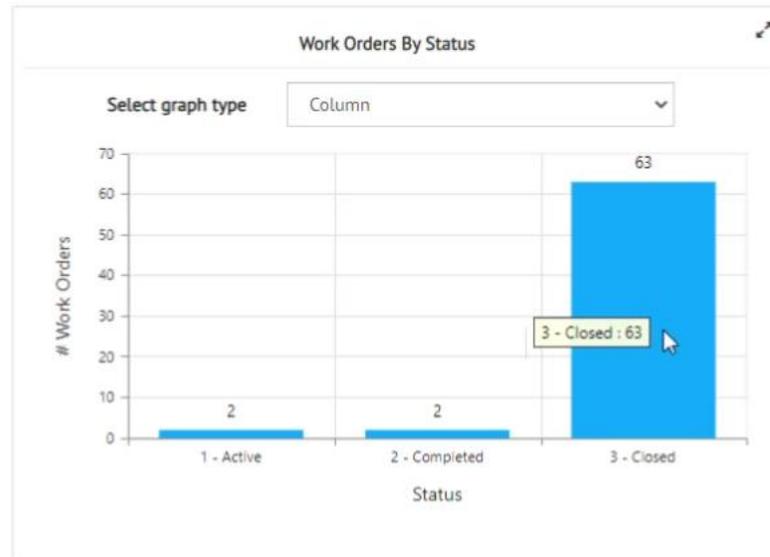
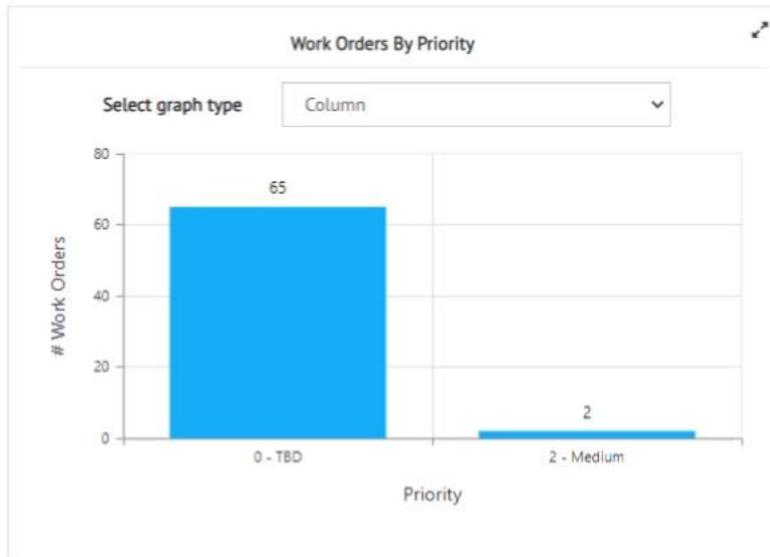
WORK ORDERS CREATED TODAY 1

HIGH PRIORITY WORK ORDERS 0

OVERDUE WORK ORDERS 0

Select Filters

Graph



Map



“Heat” Map View



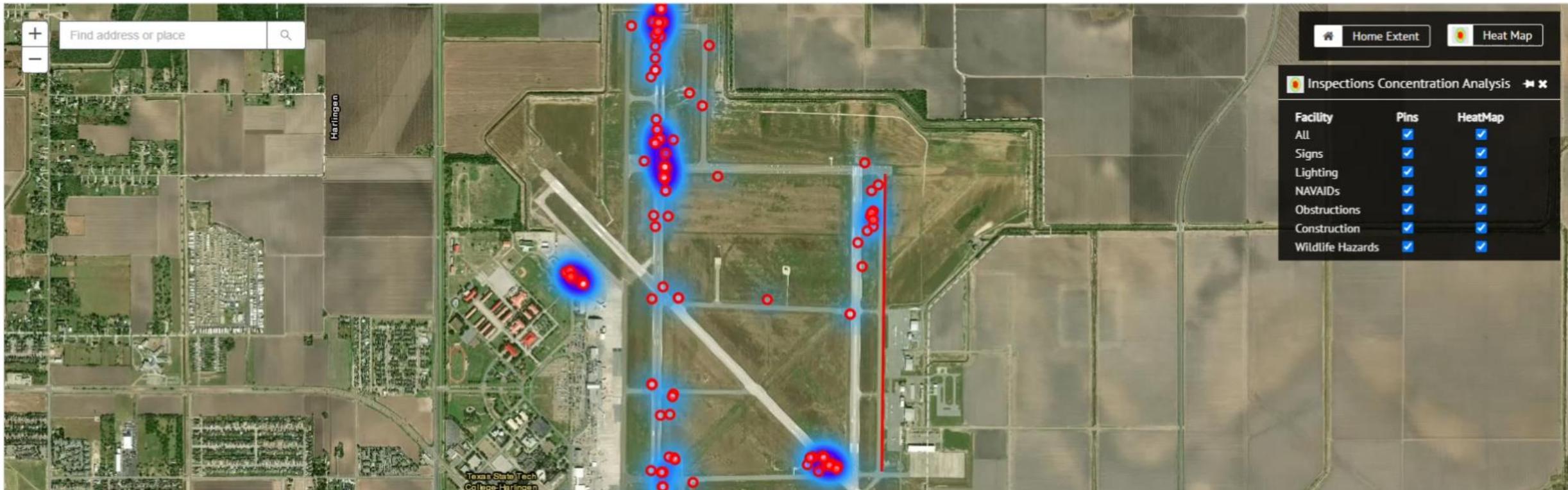
Valley International Airport Reports

Reports My Favorite Reports Standard Reports Scheduled Reports Inspection Reports

Inspections Analysis

Export Print

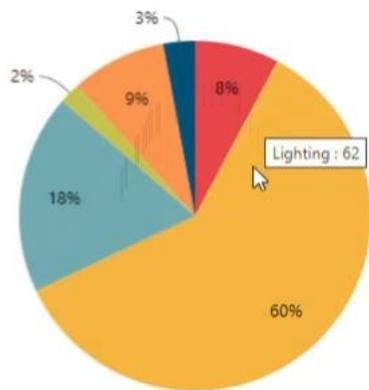
Duration Today Past 7 Days Past 30 Days Past Quarter Past Year Date Range 11/1/2020 3/19/2021



Heat Map View



Summary of unsatisfactory categories



- Construction
- Lighting
- NAVAIDs
- Obstructions
- Signs
- Wildlife Hazards

Category	Count
Construction	8
Lighting	62
NAVAIDs	19
Obstructions	2
Signs	9
Wildlife Hazards	3

CLT Lease...

Tenant:

Description:

Concourse:

Floor:

Lease Termination:



Leases To Expire

21

This Quarter

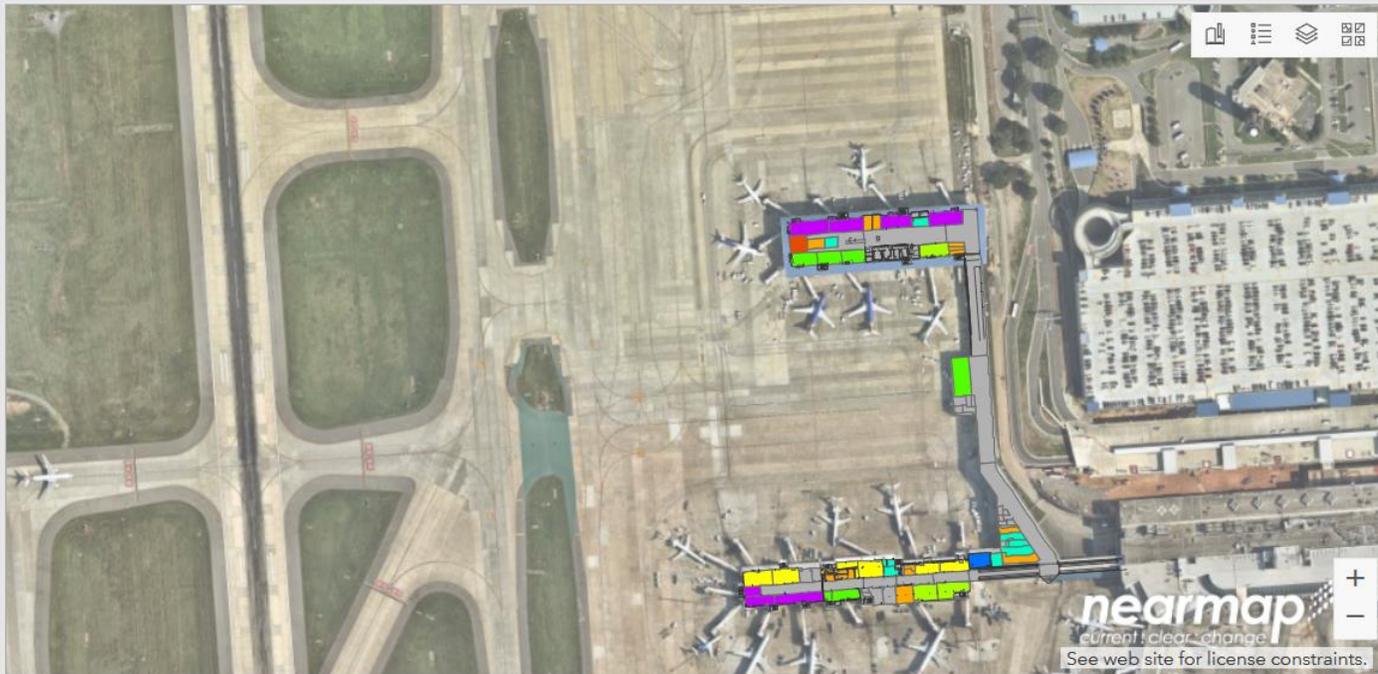
Last update: a few seconds ago

Leases To Expire

53

Next Quarter

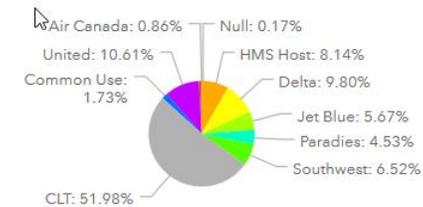
Last update: a few seconds ago



Total Lease Area: 230,554.4 ft²

Last update: a few seconds ago

Total Lease Area



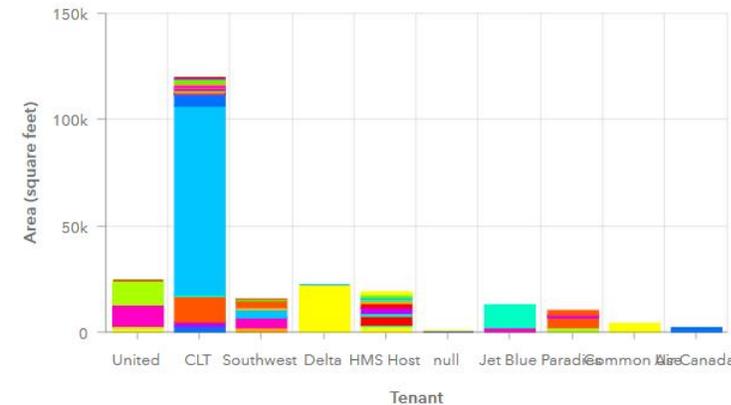
Last update: a few seconds ago

Lease Expiration Timeline



Last update: a few seconds ago

Total Lease Space Area by Tenant



Last update: a few seconds ago

BI Analytics Dashboards

Rooms at CLT Operations Das...

Tenant: Description: Concourse: Expire:



Total Room Area:
230,554.4 ft²

Last update: a minute ago



Leases to Expire

This Quarter:

 **21**

Next Quarter: 53

Last update: a minute ago

1/4 Year

Map Legend

FloorPlan

Rooms

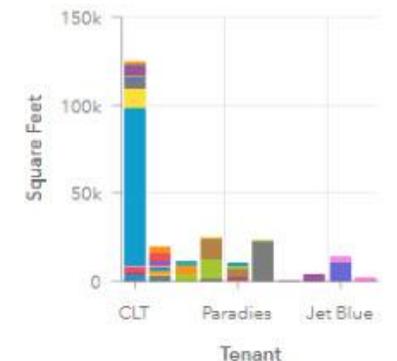
-  <Null>
-  Air Canada
-  CLT
-  Common Use
-  Delta

Lease Expiration Timeline



Last update: a minute ago

Area by Tenant and Room Description



Last update: a minute ago

Bar Pie

Symbolized Map Views



Your Work, Simplified.®



75 YEARS BOCA RATON AIRPORT

Hi, Good Afternoon
Hannah Oakland

Simplify i3

- Dashboard
- Map
 - Global Map
- Service Requests
- Inspections
- Work Orders
- Projects
- Contacts Directory
- Security Badges
- Trainings
- Documents

Global Map | Map • Global Map

Search for places or addresses

Wildlife Strike

Location of Incident	Other
Airfield Location	Runway
Bird/Other Wildlife Species	Unk
Number of Birds Struck	
Shift	Overnight
Service Request Name	Wildlife Strike - 03/13/2023 - 01:14 PM
Priority	Low
Status	Closed

Legend

i3 Data Layers

- Work Orders
 - Corrective Action
 - Preventive Maintenance
 - Safety Hazard Mitigation
- Projects
 - Airport Project
 - Safety Mitigation Project
- Service Requests
 - Aircraft Damage
 - Aircraft Incident
 - Alert 2
 - Alert 3
 - Auto Accident
 - Break-In/Theft
 - Disabled Aircraft
 - Fuel Spill
 - General Incident
 - Hazard Identification
 - Incident Template
 - Injury
 - Operational Changes
 - Property Damage
 - Research Tasks & Studies
 - SMS
 - Suggested Improvements
 - Trespassing
 - Vandalism



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Theme: i3-V2-T1 | Screen Resolution: 1536 x 864
Standard | API: v10.3.0 | Client: v9.0.10 [20230323 4:20 PM]

Concentration Cluster Map Views



- Dashboard >
- Map** >
- Global Map
- Service Requests >
- Inspections >
- Work Orders >
- Projects >
- Contacts Directory >
- Security Badges >
- Trainings >
- Documents >

Global Map | Map > Global Map

Search for places or addresses

Lat/Long: 26.07930, -80.14818

Contributors: State of Florida, Maxar, FDEP, © OpenStreetMap, Microsoft, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Layer List

- Enable Clustering
- Enable Heatmap
- Enable Pin
- All Filtered Advanced Filter
- > Work Orders
- > Assets
- > Projects
- > Service Requests
- > Contacts Directory
- > Inspections
- > CAD Layer

Concentration "Heat" Map Views

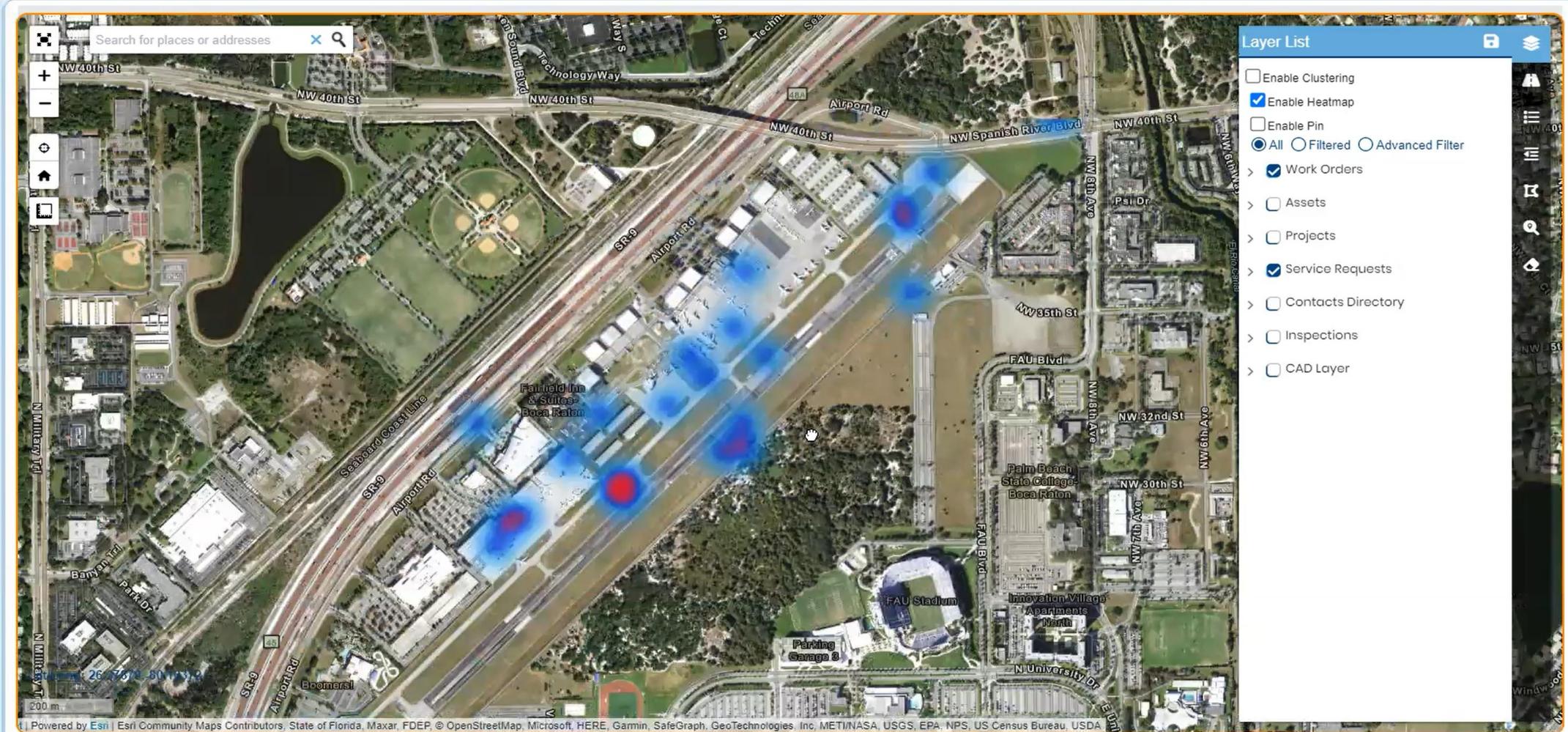


75 YEARS BOCA RATON AIRPORT Hi, Good Morning Robert Pratt

Simplify i3

- Dashboard
- Map
 - Global Map
 - Service Requests
 - Inspections
 - Work Orders
 - Projects
 - Contacts Directory
 - Setup
 - Trainings
 - Documents
 - Administration
 - Reports Designer
 - User Reports

Global Map | Map - Global Map



Layer List

- Enable Clustering
- Enable Heatmap
- Enable Pin
- All Filtered Advanced Filter
- Work Orders
- Assets
- Projects
- Service Requests
- Contacts Directory
- Inspections
- CAD Layer



Spatial BI Analytics

Leading Software Options



- Tableau with Embedded Esri Maps
- PowerBI with Embedded Esri Maps
- Esri
 - ArcGIS Dashboards
 - ArcGIS Insights
 - ArcGIS Web Applications



Takeaways

- Data Integration via Shared Spatial DBMS is Key
- Support Data from Various SW Tools & Platforms
 - Autodesk & Esri
 - Web-Enabled
 - Mobile iOS / Android
- Data Standards Compliance Facilitates Integration
- Automation Tools to Check & Convert Non-Compliant Data
- Power User Tools that Minimize Need for DBAs

Q&A



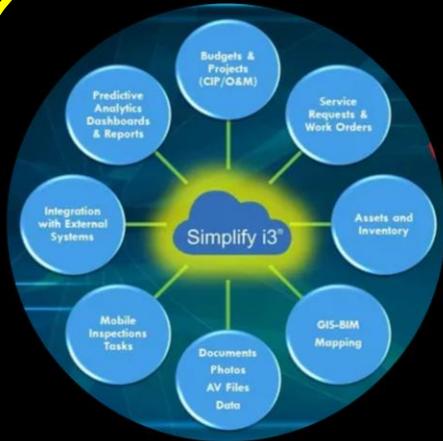
Thank You

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Welcome About Us Q&A Solution Webinars

INTEGRATED SOLUTION PLATFORM



Simplify i3

Airport Digital Twin Transformation Platform
by EPIC Engineering & Consulting Group

[Learn more](#)



AEGIS

Airport Enterprise Geospatial Information
System by x-Spatial

[Learn more](#)



BIM

Building Information Modeling Standardization
Harvesting and Integration by PDBM/x-Spatial

[Learn more](#)



WELCOME ABOUT US Q&A SOLUTION WEBINARS

AEGIS

Our Airport Digital Twin solution leverages x-Spatial's Airport Enterprise Geospatial Information System (AEGIS) as the "common denominator" component, providing the spatial skeleton supporting the correlation of various airport data.

AEGIS includes an airport-specific spatial Database Management System (DBMS), integrating both Autodesk and Esri data structures and functionality. The AEGIS DBMS is:

- ArcGIS Portal / Online
- ArcGIS Dashboards
- Maximo / Infor / Cityworks
- Simplify i3
- etc.

SPATIAL DBMS INTEROPERABILITY

Web & Mobile User Interfaces

Autodesk Revit / Tekla

ArcGIS Pro

AutoCAD Map

Auto-Export of Standardized CAD-GIS Files (e.g., MxL, ANI)

Seamless Export of Geodatabase Supporting 3rd Party Products & Apps

"Glue" between AUTODESK and ESRI

AIRPORT DIGITAL TWIN ENABLING CAPABILITIES

Integrating BIM-CAD-GIS-LIDAR

Spatial Integration Platform

The x-Spatial AEGIS backbone of our Airport Digital Twin solution, leverages state-of-the-art technologies from Autodesk, Esri, Trimble, SOLVD, Oracle, and Microsoft to integrate BIM, CAD, GIS, and LIDAR with draped imagery.

Integrating BIM Deliverables

AEGIS enables the best of both worlds -- Autodesk and Esri. It integrates Autodesk Revit BIM models, delivered for airport AEC projects, with our overall digital twin solution spanning the entire airport campus. AEGIS enables data feeds from both AutoCAD and ArcGIS Pro. It also serves spatial data for analysis to both Autodesk and Esri tools and applications.

Integrating Multi-Dimensional Data

The x-Spatial AEGIS platform allows integration of multi-dimensional data types including 2D and 3D interconnected facility views, with embedded asset attributes data, as well as asset documentation.

Integrating Business Analytics Spatially

Airport Business Intelligence (BI) requires correlation of various disparate analytics data. The most effective means for correlating multiple such datasets for airport use cases is via spatial dashboarding. x-Spatial leverages the power of Esri's ArcGIS spatial analytics, as shown in this example involving lease management data.

Space & Lease Mgmt Dashboard

Signage Management

Integrated Signage Data

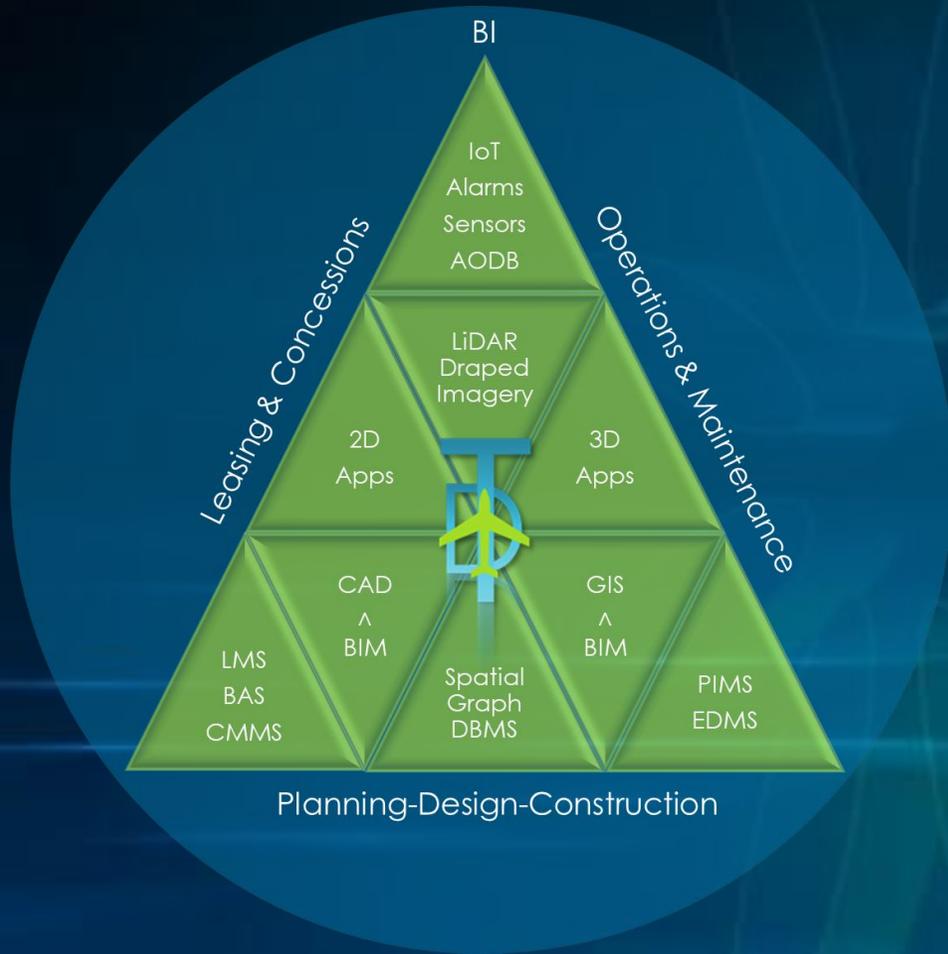
The AEGIS system supports integration of various types of airport signage data spanning the airfield per FAA requirements, terminal indoor signage, and outdoor signage covering the remaining airport campus including roadways, wayfinding, buildings, etc.

Pavement Management

Integrated Pavement Condition Data

AEGIS includes airport pavement management functionality for both

Webinar Series



1. Jul 19: BIM Processing
2. Jul 26: Information Integration
3. Aug 2: Enabling Integrated SMS
4. Aug 9: Holistic Business Intelligence
5. TBD: Leveraging Video Analytics
6. TBD: Predictive Modeling