GEOSPATIAL WORLD FORUM
2-4 April 2019
Taets Art and Event Park, Amsterdam

#geospatialbydefault
Empowering billions!

CLICK TO KNOW MORE
London Airport

1949
Heathrow Airport
Become Europe’s best connection to the world and Europe’s hub of choice by making every journey better

- 2 Runways
- 195 Stands
Europe’s busiest airport

- Europe’s busiest airport
- Over 66 million passengers (181,000 each day)
- 1,296 - Daily average air transport movements

- 90 airlines to over 180 destinations
- 77,000 People working at Heathrow
Baggage

Heathrow baggage system

- 30 miles of conveyors
- 2 miles of tunnels
- 4.3 million bags per month
- Sort and screen over 150,000 departing bags
Heathrow Services

- Heathrow has 13 different service types, some of which are unique to the airport environment, with over 50 different owners.
- There are more than 45,000 manholes at Heathrow.
- There is 72 miles of high pressure Fire main network.
- There are power cables ranging from 9v up to 400 Kva. Both AC & DC.
- There is 81 miles of Aviation Fuel network ranging between 1.5” to 20” in diameter and between 3 and 115 bar in pressure.
Asset Technical Data
and the Common Data Environment
Would you like to dig here?
Why Maintain Information about our Assets

• Operate our airport safely
• Make informed decisions

Also…

• CDM (Construction Design Management) regulations
• Corporate manslaughter act
• Contractual requirements
Common Data Environment

- Common Data Environment (CDE) is a term which is used within BAA to describe a culture where data is created once only and used many times.
- In projects technical information is created to describe our assets and this is then used by the airport client during ownership and operation of the asset.
- Having a common data environment is important because it enables reduction in rework, increased re-use of design and efficient handover to operations.
- Requirements covered in standards, guidelines, processes & toolsets are geared to support this vision.
Common Data Environment

- Projects
- Property
- Environmental
- Security
- Retail
- Maintenance

BAA Common Language
for asset coding and naming
Deliverables

• Deliverables are progressive through the project gateways
• Document and Asset Management System

What
• Infrastructure and Building Models
• Drawings
• H & S file, Operation & Maintenance Manual
• Assets Maintenance Information Integrated
Delivering Information to the Business

- Contractors
  - Geometry Models
  - Asset Information
- Firewall
- Document Management
- Building Models
- Geometry Information
- Maintenance and Engineering Management
- Engineering
- Space Management
- Property Manager
- Heathrow Map Live

Heathrow
Making every journey better
Quality Information is key
• Informed decisions made in a crisis
Information Quality

- In 2002 40% of Heathrow's underground services were mapped to within 500mm.
- Today 72% of the services are mapped to within 500mm.
Service Strikes due to poor information.
Service Protection
Service Protection

- European Regulations
- Maintain clashes
- Financial control
- Check handover of asset with boundary
Building Models
Building Models

- Visibility of models to the business
- Building and site in context
- Retail, Property space planning
Building Model - Terminal 3
Noise Mitigation Compensation Areas
Noise Mitigation and Compensation

- Calculate compensation values
- Traditional workflow
- Instant informed decisions
Space Management
Property Manager Database

Enabling strategic decisions to be made with a robust set of information to ensure that the diverse Heathrow portfolio is professionally managed.

Oracle Property Manager  
Heathrow Map Live
Space Management

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Space Legend
- Baggage
- Plant/Comms
- Property
- Retail
- TPF
- Terminal Occupied
- Capital
- Circulation/Transit

Heathrow
Making every journey better
Incident Management
Exclusion Zones
More Maps

- ACDM (Airport Collaborative Decision Making)
- Resilience – Situation Awareness
- Airside Works Approval
Situations Awareness
Airport Collaborative Decision Making
## Flight Information

### A-CDM User Manual

### BAA IT Help Desk

### Arrivals

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**A-CDM Trial days increase to 3 per week: TUES, WED & TH**
## Airport Works Approval

### Application for Heathrow works

#### Create New Works Application

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#### Project Identity
- **Project Name:** Test
- **Type of Work:** Other

#### Works Description

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#### Contractor and HAL Sponsor Details
- **Company Name:** Please select a Contractor...
- **HAL Sponsor Name:** Please Select a HAL Sponsor...

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 Heathrow
Making every journey better
… Finally the Technology

Autodesk
AutoCAD Map 3D Enterprise

Autodesk Infrastructure Map Server Map

Oracle 11G R2
Any questions?
Heathrow
Making every journey better