



# Reality Captured. Certainty Delivered.

## AAM HDS > BIM Services

### Pre-Construction

SCAN-To-BIM support  
3D feature survey

### During-Construction

BIM-To-FIELD support  
Construction surveying  
As-Built (in-progress)

### Post-Construction

SCAN-To-BIM  
Accurate 'As-Built'  
BIM-To-FM support

### Rejuvenation

SCAN-To-BIM  
Survey consultancy for design  
Heritage building consultancy

### Visualisation Services

Aerial photography & satellite imagery  
Multi-angle obliques – Pictometry™  
3D building models and BIM Support  
360° video  
SiteSee™ and AAM-TruView

### Site Measurement

3D 'As-Built' surveys  
SCAN-To-BIM  
BIM-To-BUILD  
Dimensional control  
Deformation and automated monitoring  
Feature and GPS/Cadastral surveys  
Dilapidation and site imagery

### Terrain Services

Pit and stockpile surveys  
'Bare Earth' terrain models  
Surface/Contour/DEM/DTM

### Professional Services

GIS enterprise consulting web mapping  
Spatial application development  
Hosted services & data management

### Derived Products

Mine mapping  
Building outlines  
Vegetation  
Asset information  
Powerline data  
Off the Shelf datasets



*Sydney's 1 Bligh Street project utilised BIM throughout the design and construction, and relied heavily on the use of survey set-out and as-built recording. AAM supported the construction firm Grocon for the entire project with surveying services*

### About AAM

AAM is a leading spatial information technology provider with exceptional capabilities in aerial mapping, asset information recording, geographic information system (GIS) projects, enterprise GIS solutions, and location-based services.

Further to this, our Surveying division has considerable experience in Land, Engineering and Industrial Surveying Methods as well as High-Definition Surveying.

Our services are sought after internationally; so to serve our clients we have almost 500 geospatial professionals and a fleet of custom equipped aircraft operating across Australia, New Zealand, South East Asia and Africa.

### Services & Technology

AAM's proven technology leadership includes a range of advanced systems for the collection, analysis and presentation of geospatial information.

Our teams have introduced pioneering innovations to the market and continue to adopt industry leading technology such as Automated Monitoring Solutions, Terrestrial Mobile Laser Scanning and precise laser tracking, LiDAR, Bathymetric LiDAR, high resolution aerial photography, UAV, Satellite Imagery (GeoEye, DigitalGlobe, RapidEye), 360° Spherical Imaging, SiteSee™ and Pictometry®.

Using our skills and tools, AAM has built an extensive GeoExtra library of "Off the Shelf" digital photography, 3D building models and high resolution digital terrain datasets.

### Industries

AAM has a wealth of expertise across a diverse range of industries. Although AAM supports all sectors, we have vast experience in the areas of Resources (Mining & Minerals, Oil & Gas), Infrastructure, Government, Forestry and the Environment.

### What is HDS?

High Definition Survey scanning is the technique of collecting data of a given area by taking millions of distance measurements from a Laser Scanning instrument resulting in a three-dimensional (3D) photographic image. Spatial data is collected through horizontal and vertical swathes of user defined intensity.

### BIM & 3D Laser Scanning

3D laser scanning and advanced scanning technologies allow for better documentation of as-built drawings and existing conditions.

3D visualisations allow customers to see site context with respect to the new project. They allow for co-ordination to reduce RFI's, errors and omissions. 3D laser scanning offers an excellent means of documenting and capturing existing conditions of current buildings as well as as-built recording of new structures.

AAM are best positioned to support Developers, Architects, Engineers and Project Managers for developments, redevelopments and heritage projects to ensure accurate measurement and dimensioning.



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## HDS Case Study: ThinkOTS

AAM have been working closely with ThinkOTS in developing an accurate model of the secret chamber attraction deep within the historic mine at Sovereign Hill. Sovereign Hill is a museum located in the heart of Ballarat in regional Australia.



AAM's High Definition Survey Laser Scanner generated an incredibly high resolution model of the space. This allowed for a precise 3D depiction of every nook and cranny of the chamber. This allows accurate projection onto the surface to remove distortion and make animations as lifelike as possible.



ThinkOTS benefited from the use of the scanned HDS to ensure they achieve the best results for visitors to Sovereign Hill's new tourist attraction. Creative Director Peter Ford understands the benefit in reality capture by AAM and testify to AAM's experience and service in HDS.in the video available at:

<http://youtu.be/ISrcuVeAkFk>



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The custodians of Melbourne's Flinders Street Station use HDS technology to provide analysis on the buildings position, structural integrity and developments over time.

### Benefits of HDS Scanning

- Discrete and rapid field acquisition
- Accurate foundation BIM for reliable site and design dimensioning
- Clearance measurements and clash detection
- Building positioning or as-built recording
- Information in one place for decision making
- Survey Data Forms basis of all future works in the precinct
- Capable of being updated further as needed by client request

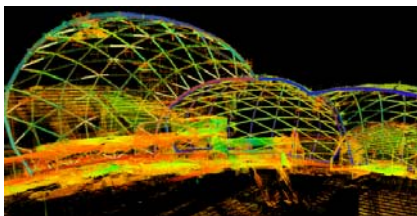
### HDS in Pre-Construction

AAM have used High-Definition Surveying Technology to support new and existing BIM's to ensure that the existing structure represented in BIM is dimensionally accurate.



### HDS in Construction Validation

HDS Technology is used to record as-built position of many structures during construction projects, which would be otherwise be too difficult, timely and dangerous to capture.



### Successful HDS Projects

AAM have been consulting engineering surveyors on hundreds of structures up to 100 Storeys, several of which are now designed from BIM.

- No 1 Bligh St, Sydney
- Gorgon & Wheatstone LNG
- Pilbara operations and audits
- Stadium developments
- Chau Chak Building, Sydney
- Melbourne Convention Centre
- Eureka Tower, Melbourne
- Soul Tower, Gold Coast
- Burj al Arab, Dubai
- Petronas Towers, KL

### AAM is one of the world's largest spatial solutions providers with;

- 500+ staff, about 300 in Australia
- High Definition Surveying
- Engineering and Industrial Survey
- Construction surveying
- Satellite imagery
- Over 14 aircraft
- 3D GIS, visualisation
- GIS and spatial services

### AAM Office Locations

Australia | New Zealand  
Malaysia | Singapore | South Africa

### HDS Contact Details

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