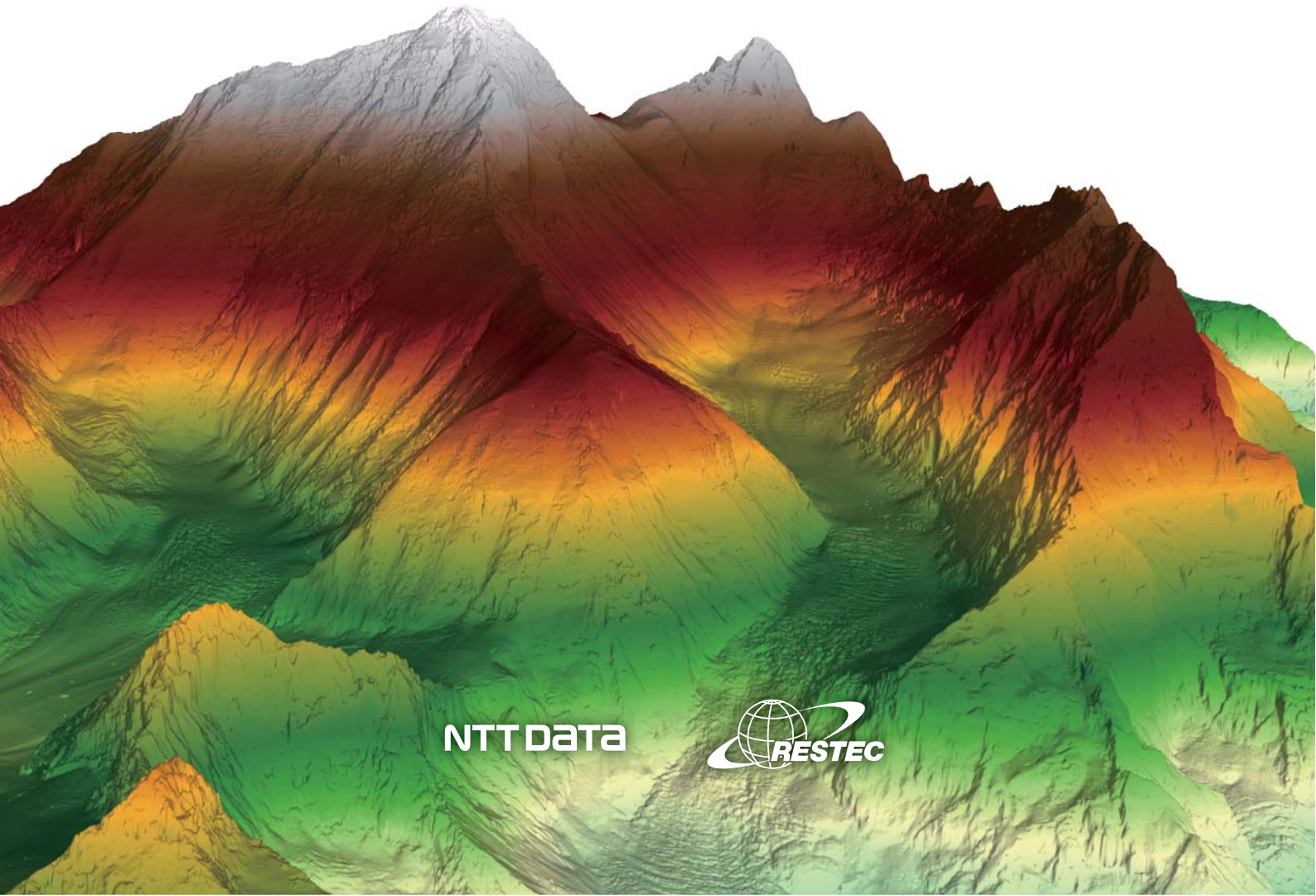
Discover New Possibilities

AW3D

Global High-Resolution 3D Map



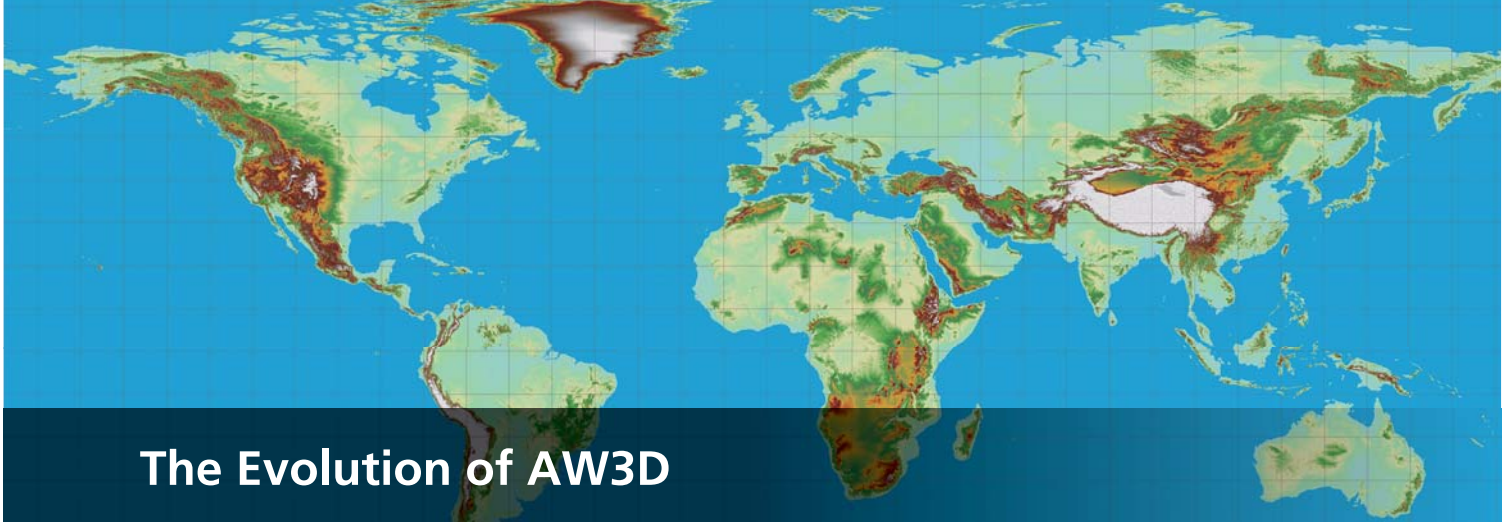
NTT DATA

RESTEC

High-resolution 3D Maps. Enhanced Usability.

Take advantage of the success we've had in over 70 countries for your project.

The possibilities for 3D mapping are infinite, ranging from wireless planning, city planning, infrastructure management, disaster management, environment monitoring, to applications in public health. With the advancement in technology, progress has been made in driving forward the demand for 3D maps in almost every aspect of our lives. AW3D has successfully established a highly capable ecosystem to provide a rich line up of 3D maps to more and more people. Cost effectiveness, superior quality, fast turnaround time, and the flexibility to support a wide range of formats is what makes this all possible. Whenever your project needs a force to move forward, AW3D is the answer.



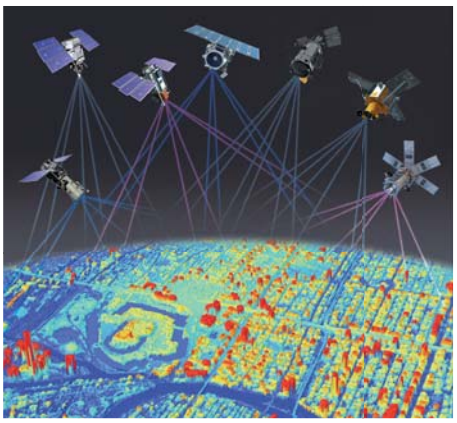
The Evolution of AW3D

The Most Advanced 3D Map in Your Hand

AW3D is a perfect combination of Remote Sensing Technology Center of Japan (RESTEC)'s lifetime experience in satellite imagery processing technology, mixed with NTT DATA's big data processing expertise.
Our main sources include JAXA's (Japan Aerospace Exploration Agency) Advanced Land Observing Satellite (ALOS) satellite, along with the world's highest resolution commercial satellites from DigitalGlobe. The capabilities from these satellites complement each other with wide area coverage and high resolution imagery, to create a cost effective and high quality product that fulfills the needs of many customers. This is the advantage of AW3D.

Our Cutting-Edge Image Processing Algorithm

Established in 2014, AW3D's initial aim was to open up Japan's geospatial technology to the world by completing the highest-resolution off-the-shelf 3D map. Our experience in processing roughly three million satellite images to construct this global data set has now become our biggest asset.
Today's AW3D is a result of leveraging our past experiences and combining this with our constant refinement in developing innovative algorithms in the following areas: big data analytics, cloud computing, multi-view imagery processing technologies, and the state-of-the-art artificial intelligence and machine learning technologies to extract more information from satellite imagery. In order to provide our customers with the most advanced and highly usable 3D Map solution, AW3D is still evolving.

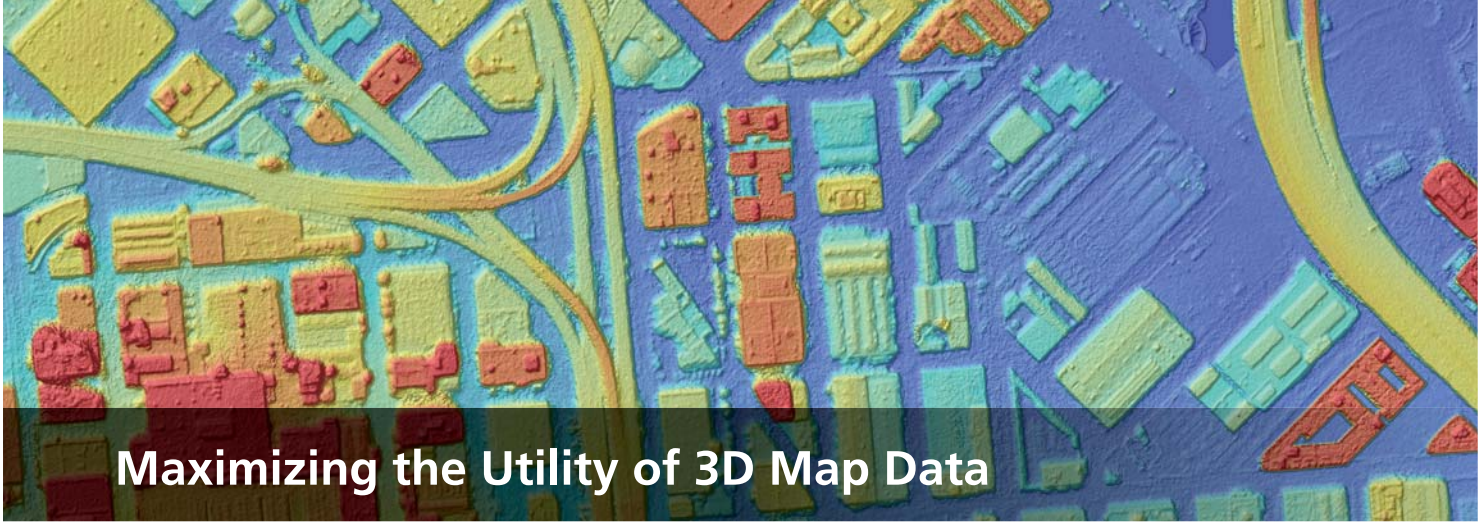


Awards

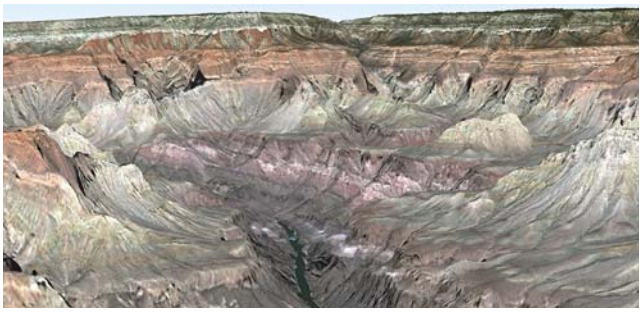
March 2016 — **The Japan Prime Minister's Award (2nd Space Development and Application Awards)**
An award to recognize the exemplary achievement in aerospace technology development.

January 2017 — **The Nikkei Business Daily Awards for Superiority (2016 Nikkei Superior Products and Services Awards)**
An award to recognize the excellence in product and service, based on six criteria : technological and developmental potential, price effectiveness, the degree of contribution to the company's achievements, growth potential, originality, and the impacts on industries and society.

August 2017 — **Asia Geospatial Technology Innovation Awards (Asia Geospatial Excellence Awards 2017)**
An award to confer the organizations or projects for exemplary innovations and practices in geospatial information and technology in the Asia Pacific region.

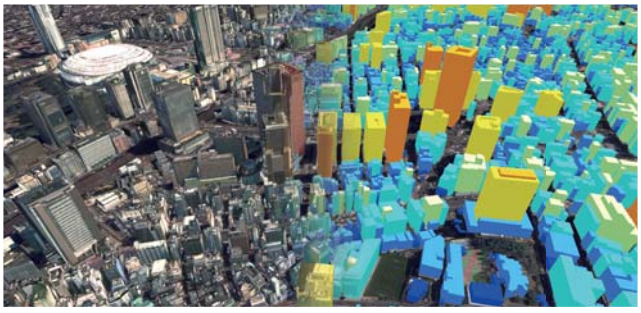


Maximizing the Utility of 3D Map Data



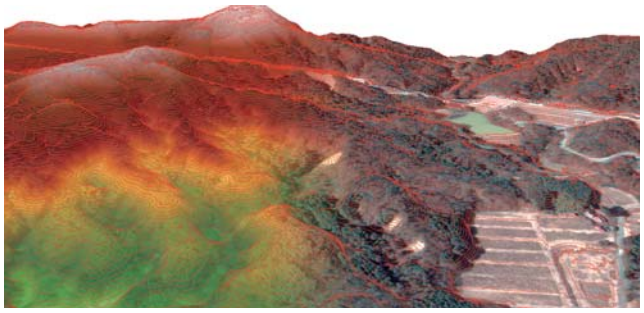
Complete Global Coverage

The availability of accurate and consistent data over your area of interest is one of the key elements for projects where 3D map data is required. "AW3D Standard" overcomes many restrictions of aerial survey and ground-based observation by utilizing three million satellite images that were acquired by a single satellite. The product, generated from Advanced Land Observing Satellite(ALOS) operated by JAXA, had been managed under a strict quality control process and this allowed us to provide precise and homogeneous 3D map data throughout the entire world, regardless of regional characteristics in the target area.



Overwhelming Cost Effectiveness

Short lead times and cost-effectiveness are the two keys in determining if 3D maps that include building information can be applied for a given project. The conventional map creation method is highly labor intensive and cannot catch up with market demands. "AW3D Building" and "AW3D Metro" make 3D building data more affordable by fully utilizing various machine learning techniques with a cloud computing environment to extract massive amounts of building information in three-dimension from high-resolution satellite imagery. As a result, we are now able to provide wide area of 3D city model in very short time at a fraction of the original cost.



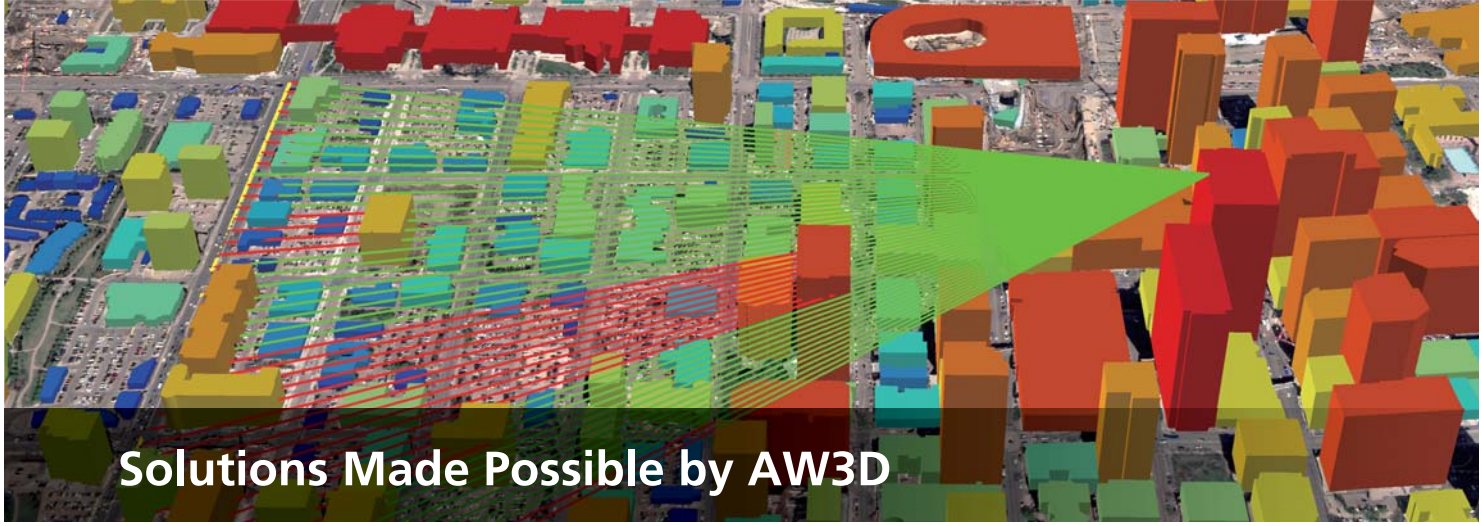
The World's Best Resolution and Accuracy for Projects in the Field of Planning and Designing

Some applications such as city planning or facility design require very high resolution 3D map data. In order to meet these demands, "AW3D Enhanced" provides up to 50cm mesh data which is equivalent to traditional 1:2,500 maps. This is realized by processing multiple ultra-high resolution images that are acquired by the WorldView constellation operated by DigitalGlobe. The best in class accuracy of AW3D Enhanced maximizes the possibility of 3D mapping, including the use of 3D maps for any planning and design works.

Offering Lineup of Dedicated and Customized Products

Our society has been changing and so have been the requirements of your projects. One of the unique features of AW3D family is its flexibility to offer customized products. For example, a change in terrain dataset after a specific event can be analyzed using the AW3D Enhanced product.

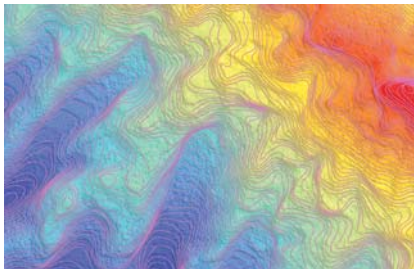
We have also been expanding our product portfolio to fulfill various demands from specific applications. "AW3D Telecom" is a dedicated product to support signal propagation and other analyses. "AW3D Airport" is specifically designed for aerial navigation applications. Going forward, we will continue to improve AW3D products per your requests.



Solutions Made Possible by AW3D

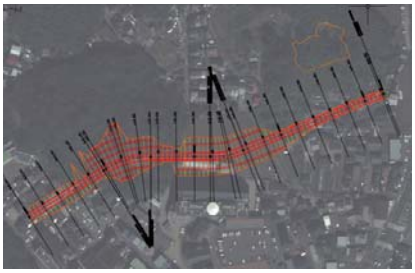
More than 400 projects worldwide in various fields

Thanks to the worldwide coverage, high-precision, and the variety of products, our global customer support network has helped promote AW3D to be used in more than 400 projects in over 70 countries. The dataset has been contributing to the efficiency and sophistication of disaster prevention measures, natural resource, city planning, electricity development and communications services in the global market.

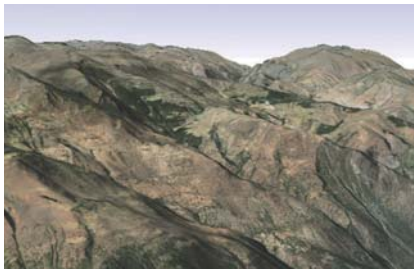


Mapping at scale of 1:2,500

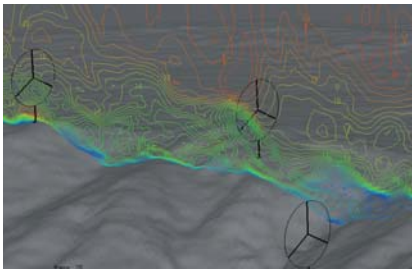
Damage estimation of inundation above floor level by Flood simulation



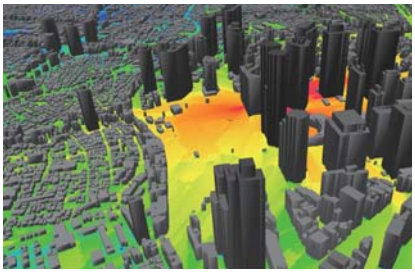
Soil volume estimation for the land development construction



Selection of potential areas in mineral exploration



Selection of wind power generation locations



Planning for wireless base station

Applications	
• Energy Exploration for geothermal energy, oil and gas, photovoltaic powerplant construction	• Air Navigation Airline route design
• Infrastructure Construction and Management Route planning and outline design for railway and road construction	• City Planning Design drawing, communication and telecom analysis
• Dam Construction Determine flood prone area during construction	• Mineral Resource Exploration Research site selection
• Disaster Prevention Flood simulation, tsunami and storm surge simulation, landslide analysis	• Water Resource Irrigation plan, water vein analysis, lineament extraction
• Public Health Water basin analysis in developing countries	• CG Game, VR contents, tourism contents
• Mapping Base map generation	

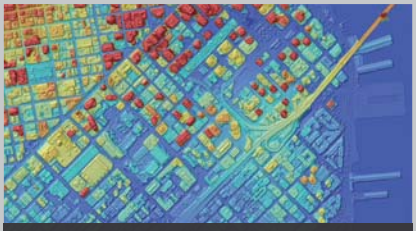
Product Lineup

Digital Elevation Model (DEM)

AW3D Standard

The world's best global DEM in 5m resolution

Product Type Raster Data
Resolution 5m
Satellite JAXA-ALOS

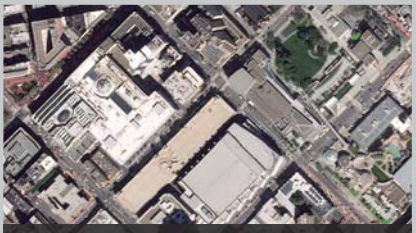


AW3D Enhanced

The world's highest precision DEM for city planning or facility management

Product Type Raster Data
Resolution 0.5m / 1m / 2m
Satellite DigitalGlobe-WorldView, etc.

Ortho Imagery

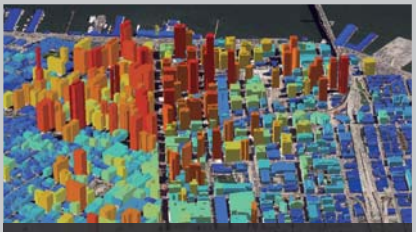


AW3D Ortho Imagery

The world's highest quality orthorectified imagery for better understanding of the present situation with 3D maps

Product Type Raster Data
Resolution 30cm / 40cm / 50cm / 60cm / 2.5m
Satellite DigitalGlobe-WorldView, etc.
JAXA-ALOS

Building Data



AW3D Building

3D data with building footprints and heights

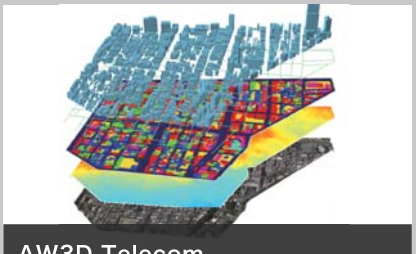
Product Type Vector Data
Satellite DigitalGlobe-WorldView, etc.

AW3D Metro

Precise 3D city model which has nation-wide or state-wide coverage

Product Type Vector Data / Raster Data
Satellite DigitalGlobe-WorldView, etc.

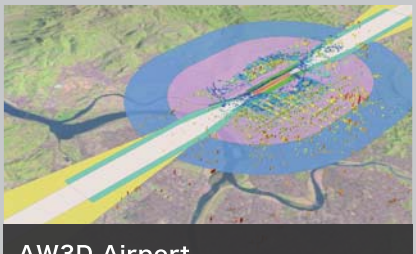
Dataset for Applications



AW3D Telecom

Perfect 3D dataset for simulation of wireless signal propagation

Product Type Vector Data / Raster Data
Satellite DigitalGlobe-WorldView, etc.



AW3D Airport

Terrain and obstacles dataset optimized for aviation standards (eTOD)

Product Type Vector Data / Raster Data
Satellite DigitalGlobe-WorldView, etc.

NTT DATA Corporation
Sales and Marketing Group 3
e-Community Division
Public Sector 1
Toyosu Center Building Annex, 3-9, Toyosu 3-chome, Koto-ku,
Tokyo 135-8671, Japan
Tel : +81-50-5546-2507
E-mail : aw3d@kits.nttdata.co.jp

Remote Sensing Technology Center of Japan (RESTEC)
Solution Service Department
TOKYU REIT Toranomon Bldg. 2F, 3-17-1 Toranomon, Minato-ku,
Tokyo 105-0001, Japan
Tel : +81-3-6435-6789
E-mail : data@restec.or.jp

http://aw3d.jp/en