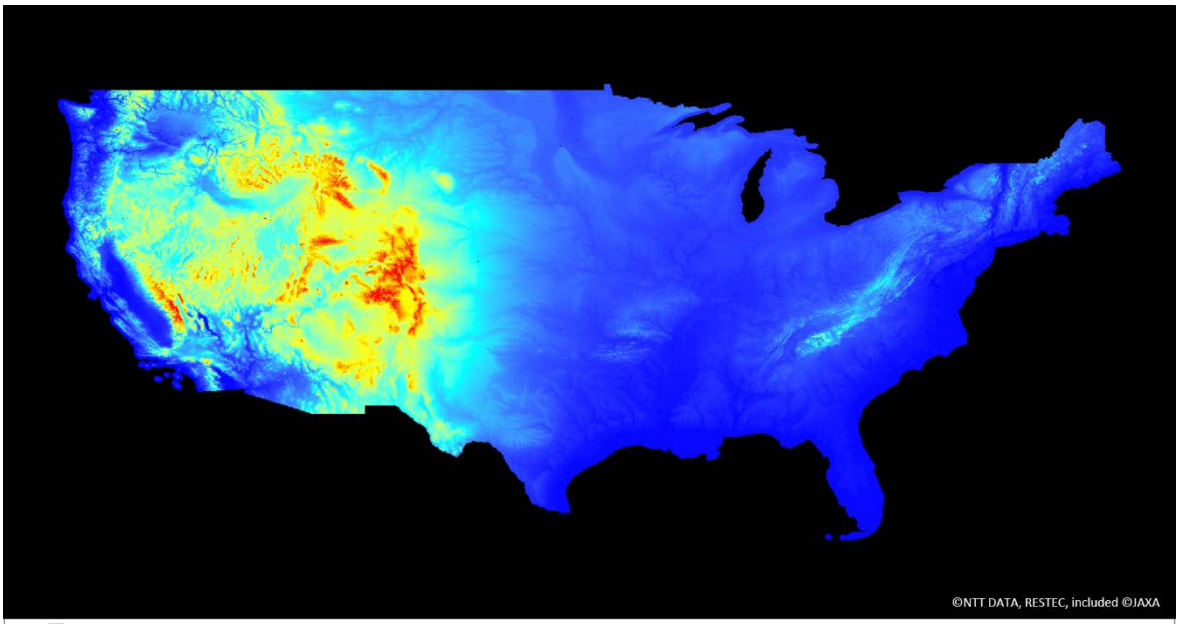
AW3D Newsletter vol. 31

October 21st, 2021

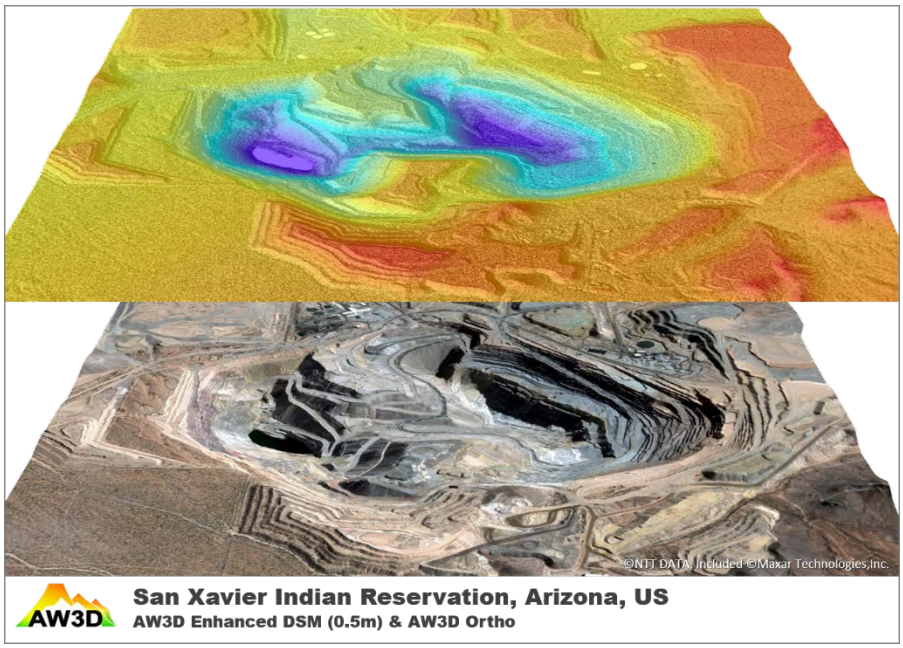
Welcome to the latest edition of the AW3D newsletter.
The cooler breeze reminds me that autumn is just around the corner in Tokyo.
Today, we would like to introduce AW3D use cases in the mining field, that our 3D products have been increasingly used in recent years. Please enjoy, and contact us any time if you are interested.

1. 3D Map of the Month: DTM over entire US CONUS



The United States is known as one of the countries that 'open data' of advanced geospatial information is well developed and prepared. However, there is always a challenge in its uniformity when using the data over a wide area, since the data is usually prepared differently by each local government.
AW3D prepares the uniform dataset of Digital Terrain Model (DTM) for contiguous United States (CONUS) areas as "off-the-shelf" with 10m resolution.
It is suitable for the customers in telecom, utilities, broadcasting & cable TV, railway, and so on, for their businesses, and can be offered in a very short delivery timeline.

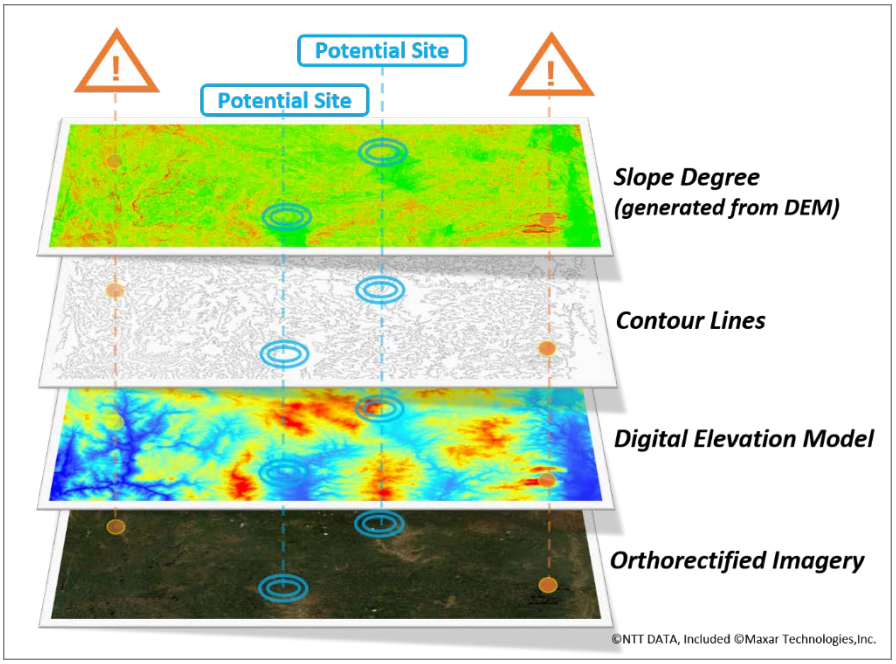
2. AW3D use case in mining field



AW3D is used by customers in various fields, and in this newsletter today, we will introduce use cases in the mining field.

For efficient mining-site exploration and development, it is necessary to perform an extensive and accurate exploration sites survey. However, a pre-exploration on-site survey could be very costly, time-consuming, and sometimes risky for surveyors. AW3D is useful to get the latest overview of worldwide exploration sites without the on-site survey, with a lower cost and shorter timeline.

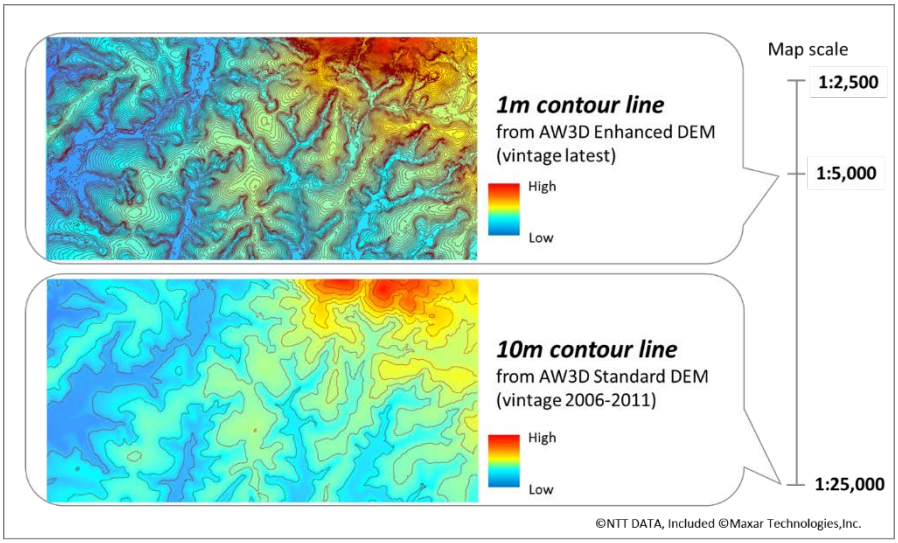
2.1 Prospection and exploration of sites



Dataset for prospection and exploration phase in mining

In the exploration phase, AW3D can offer various information layers without any ground surveys. For example, digital elevation model, contour line, and highly accurate ortho-rectified imagery. By utilizing these layers, it is possible to understand the topography and evaluate the best site location before an on-site survey. This will contribute to minimizing the time and risk of prospection and exploration of sites.

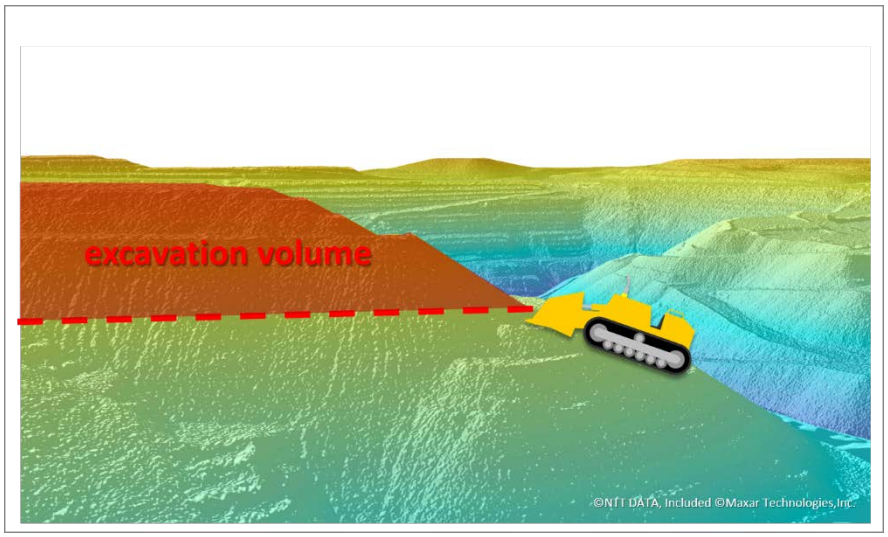
2.2 Highly accurate contour lines



Contour lines for planning and design phase in mining

In the planning and design phase, accurate contour lines are required to understand the current topography precisely. 10m contour lines can be created from AW3D Standard DEM (2.5m or 5m) from the satellite of ALOS-1, and it is equivalent to 1:25,000 map scale. Also, 1m contour lines can be created from AW3D Enhanced DEM (0.5m – 2m) from the satellite of Maxar, and it is equivalent to 1:2,500 to 1:5,000 map scale.

2.3 Estimation of excavated soil volume



Estimation of excavated soil volume in mining

In the planning and design phase, it is important to estimate the excavated soil volume to manage the site. AW3D can offer the recent 3D topographic data for the wide region so that it is possible to make realistic estimations at a lower cost. For example, AW3D is useful to consider how many construction machines are best to carry a certain volume of soil.

2.4 Mining site monitoring

Mining site monitoring using AW3D

AW3D is one of the best products to manage and operate mining sites, including oil, gas, iron, and gold; not only to understand the current situation but also for comparing with the past situation of the site. Throughout the mining phase (exploration – operation & maintenance – site closure), AW3D enables you to monitor the worldwide exploration sites even if staying at home.

If you are interested in our AW3D product, please contact us from our website at https://www.aw3d.jp/en/contactform/ for more details.

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