

Metadata and the quest for the Holy Grail

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Metadata. When spoken of in the geospatial context, we often think of GIS data and the information which describes it. Having attributes such as the date of creation, method of digitization, and even the color prescribed for a feature, has become an integral part of the way our industry does business.

What about similar information related to remote sensing data?

It is infrequent that field collection is performed on a project and an end product not created. Whether it is a topographic plan, an engineering model or simply a data dump onto a hard drive, users need to know and have access to, some of the same information.

When was the data collected? Which type of sensor was used? What was the temperature during collection? As unimportant as it may seem, these types of information may have a meaningful impact on the downstream products and without the answers, the resulting decisions are easily questioned.

Professional surveyors have traditionally captured this information on the cover page of field notes. Things such as the collection date, the weather, the instrument serial number and who performed the work are standard requirements. These sheets are rarely sent to clients, instead they receive plans which capture this information in the title block. The original field notes, a legal document, are stored for eternity by the surveyors.



With so much remotely sensed data now being collected outside traditional survey firms, it is hard to know how many of these practices remain. How is someone supposed to know what projection a point cloud file is in? What was the instrument height of the 360° camera? Although this information may not have the same legal implications as legal boundaries, it is no less important.

With fewer and fewer physical deliverables in the form of plans with title blocks, this information seems lost, or if not lost, at least hidden. From proprietary projection files, to overly complex folder structures, the "field collection metadata" is often there, you just need to dig for it, and it helps if you know exactly what you're looking for.

Why not make this easier for everyone? Is it really necessary to keep this information concealed?

The use of something as simple as a project deliverables sheet can prove invaluable when delivering raw data files and ensures the intent of the data remains with it. Without this information, data can easily be used for the wrong purpose. Examples of this include using full earth for DEM creation, procuring sparsely posted point cloud information for engineering grade modeling and employing outdated feature location information for as-built tie-in.

To assist with this handover of information, we have developed a simple "Geospatial Data Sheet" which can be used for these submissions. We hope that this will alleviate many of the struggles we see with finding metadata associated with the transfer of geospatial data and reduce search times.

Although some enjoy the search for information which may, or may not, even be present, not everyone wants to undertake the adventure of an expedition with it's undoubted trials and tribulations to find the "field collection metadata", or as I have started to call this, the data Holy Grail.

