

Accurate Global Georeference

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SUMMARY

CompassData's objective is to map the world, Surveyors around the globe have travelled on CompassData's behalf across 125 countries to thousands of cities with Global Positioning System (GPS) units to record observations on photo-identifiable features. These measurements were processed with geodetic methods and the resulting coordinates are stored in databases as Ground Control Points (GCPs).

<https://compassdatainc.com/survey-mapping-data/ground-control-points-archive/>

With these GCPs, CompassData provides uniform solutions for accuracy in all of their mapping missions.

Mapping, defined as the acquisition of area covering imagery or datasets, is collected by lidar, using aerial cameras, lidar sensors, and mobile mapping platforms, and by satellites.

As a result, the coverage has grown since CompassData started the endeavor in 1996. Mapping and surveying GCPs around the world. Customer growth with new applications also has grown steadily. GCPs have become the standard within satellite imagery. Over the last two decades, and still growing. Because of the rapid development of aerial sensors to higher resolution and higher accuracy, GCPs are used more often for georeferencing data to the ground, as well as to further to assess the quality of products, such as orthoimages and 3-dimensional point clouds.

Ground truth is achieved through geo-referencing with GCPs. Geo-referencing is of highly significant for high resolution and high accuracy geospatial datasets. The GCP Archive has grown to over 65,000 GCPs in over 125 Countries. It is a unique dataset.

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While it is standard to deploy GCPs for all high accuracy mapping projects, Geospatial Information Systems (GIS) users appear less involved in accuracy, despite a surge of GIS in the last decade. Surveyors, who are familiar with Control Points as bearer of accuracy, are steadily more exposed to ready available orthoimagery for engineering projects. The main software providers are including imagery for backdrops as the imagery supports the visual perception. Imagery places an easily recognizable context around engineering and planning projects.

CompassData's GCP Archive has been used and is currently used for many large mapping projects in the western world. There is still a need to continue the acquisition of GCPs in Africa and Asia. With GCPs available over a significant amount of landmass many mapping projects can be georeferenced to existing GCPs.

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