

CARTODATA

Growing Geomatics Services in Mexico



In step with global trends, CartoData is presently making the shift from a family business run by a fourth generation of photogrammetrists to a multidisciplinary consortium providing engineering and geomatic services and tools worldwide. The authors describe their view of the mapping industry from the standpoint of a geomatics service provider and software developer.



With a background of three generations of surveyors and mapping engineers, privately owned CartoData was founded in 1999 in Guadalajara, Mexico, initially staffed by sixteen technicians. Since then the company has distinguished itself by its serious commitment to R&D of software tools for geographic data management.



The firm's heritage dates back to 1951, when surveying, and particularly aerial photogrammetry were enterprises reserved for intrepid minds, such as that of the late civil engineer Henri Audirac Sr.

Offshoots Network

CartoData is an international company that provides services and products related to geomatics for the benefit of public and private sectors. The company has a fully digital photogrammetric production line. Operating two aircraft equipped with DiMAC and Ultracam Lp digital cameras outfitted with ABGPS/IMU and staffed with ninety employees, CartoData is one of the largest mapping operations in Mexico.

Management is focused on assuring geospatial data quality and client satisfaction. The company has spearheaded a network of small photogrammetric firms started up by former employees, with CartoData supplying financial and technical assistance including AU4, an in-house developed digital photogrammetric workstation DPW, and other mapping tools. Over the past four years the firm has sustained 50% financial growth as a result of timely investment in infrastructure.

Besides mapping, the company is also engaged in highway engineering, water management, environmental impact, forestry inventories, and information systems development activities.

World Niche Markets

Coping with the international competition from photogrammetric services outsourcing, the company relies on R&D to find niches for special products and services. Clients for its software tools can be found in countries as diverse as Brazil, Kenya, Greece, France, Mexico, Argentina, Spain, Chile, Honduras and Ecuador.

The CartoData R&D team has recently developed Vision360, a mobile mapping system using fisheye optics that produces panoramic views on which measurements can be performed. Another development, Oblix, is an oblique aerial camera system that takes aerial imagery wherein every object can be displayed and measured on a minimum of five views corresponding to nadir and four low-obliques at 45 degrees. Both systems have effectively been deployed in highway and urban property-assessment projects.

Diversification Ahead

The need for maps is growing steadily. Like GPS, augmented reality will become an everyday technology. Google Earth has brought along a worldwide awareness of the importance and benefits of collaborative mapping. CartoData is aligning its R&D strategies with these technologies to generate new applications in smart phones and tablets.

The authors foresee a challenging future in which many other disciplines will be marketed bundled with their geographic component. This view underpins our commitment to diversifying into other areas such as forestry, public transportation, water management, soil

conservation and agro-ecology.

Climate-change studies will also require more adequate and consistent geographic databases compiled over time.

Developing countries face the problem of segregated and inaccurate cadastre and land property records. The public and private sectors will partner to solve this problem, which results in inadequate planning and hampers investment. Wealth is measured by how fast a country can develop its assets. In this context, maps are the media that convey the message.

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