



# DATA SOLUTIONS

CASE STUDY: HULL & ASSOCIATES, INC.

PARTNERS WITH PACE® ANALYTICAL TO MAXIMIZE DATA HANDLING EFFICIENCY AND PUSH SAVINGS TO THE BOTTOM LINE



## HISTORY

Since the environmental industry first began collecting and interpreting site data, consultants, regulators and the regulated community have been seeking ways to more efficiently handle the vast quantities of laboratory and field data required to move a project from investigation to closure. Over the course of a project, the numbers are entered, verified, validated, transferred, accessed, integrated, and managed many times by multiple stakeholders. The workflow can be smooth and efficient or difficult and expensive, depending on how well the system is designed and the individual components are connected. The environmental industry is quickly moving away from the days when large stacks of paper were transported around the country; but the physical challenges of moving bank boxes can seem quaint and simplistic when compared to the digital challenges of providing secured access for multiple users through various interfaces to fully validated, high-quality environmental data in a transparent and cost-effective manner.

## CHALLENGE

The GIS and Data Management staff at Hull & Associates, Inc. (Hull) in Dublin, Ohio set out to track and lower their "total cost of ownership" of laboratory data, while providing more value to stakeholders. Hull defines the total cost of ownership to include: cost per sample, field costs, shipping, post-processing, validation, and quality control handling time necessary to make the data useful to clients. Their goals were to provide enhanced data functionality, maintain data integrity, increase process efficiency, and improve data access, while significantly decreasing man hours required to enter large sets of data into client databases and reducing errors related to data handling. If successful, the efficiencies could result in significant savings within their operations, and these savings and efficiencies could be shared downstream with their clients. To accomplish these objectives they turned to their data partners: Geotech Computer Systems (Geotech) – producers of the Enviro Data, Environmental Data Management System and Pace® Analytical Services, Inc. (Pace®), Hull's primary source of laboratory data, and developers of the PacePort® web-based data management portal.

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## SOLUTION

With the assistance of their data partners, Hull began implementing the process of fully integrating and automating all the systems and components involved in the data collection process. Beginning at the site with sample collection and sample location mapping using Global Positioning System (GPS) and Geographic Information System (GIS), the process continues at the lab where samples are analyzed and results are reported, and concludes with the transfer of final report data to Hull, where it is uploaded into the Enviro Data System and their client's databases. Once the samples are analyzed and results auto-uploaded to PacePort®, an electronic data deliverable (EDD), based on an Enviro Data standard EDD, is developed to facilitate the data transfer to Hull. Following the delivery of the EDD from Pace® to Hull, Hull utilizes a workflow for importing, processing, and performing quality control of the laboratory data into the Enviro Data database system. Hull is able to verify and validate the data within Enviro Data and link to the GIS data utilizing Enviro Spase. Enviro Spase provides the seamless interaction between Enviro Data and the GIS databases. With Geotech's assistance, Hull developed streamlined reporting processes to greatly reduce the data reception to report time. The combination of a sophisticated array of mapping, aerial photo and trend analysis presentation formats provided an ideal medium for communicating project information to stakeholders.

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## BENEFIT

With all systems now fully integrated and operating, Hull is able to offer unique, high quality, and efficient data solutions to their clients at a fraction of the cost and time previously involved. Mark Eiseman, GIS and Data Management Practice Leader at Hull during the implementation and now Vice-President of Altitude Solutions LLC, a GIS and environmental data management firm based in Denver, Colorado, commented, "Our goal with the system was to make field sampling and data management better, faster and cheaper. With assistance from Geotech and Pace®, in just a few months we were already realizing our goals for a smooth and efficient workflow; the products we provided to our internal and external clients were significantly improved; and our data management costs were greatly reduced. We have seen reductions in field sampling and data management costs per sample ranging from 20% to 50% versus our old system, depending upon project characteristics."



Pace® makes the world a safer, healthier place. We partner with clients to provide the service, science, and laboratory data needed to make critical decisions that benefit us all. Through a nationwide laboratory network, Pace® advances the science of businesses, industries, consulting firms, government agencies, and others. More at [PACELABS.com](https://www.pacelabs.com).