

Petrobras

Fuels Environmental Insight

Energy Giant Builds a More Sustainable Operation With BI Technology

With nearly 14,000 productive wells, 98 production platforms, 16 refineries, 120 tankers, and 53,000 employees, Petrobras is the world's seventh largest oil company and the largest corporation in Brazil. Size matters in this capital-intensive industry, but even more important in today's ecologically minded business environment is a company's environmental track record. Petrobras is an acknowledged leader.

In 2008, the company was identified by a Management & Excellence (M&E) survey as the world's most sustainable oil company. Petrobras placed first for ethics and sustainability based on 387 international indicators, including fewer pollutant emissions and oil leaks, lower consumption, and a transparent vendor service system.

This insistence on accountability and efficiency pervades Petrobras' vast organization, as evidenced by its astute use of business intelligence (BI) technology to track corporate performance. Information Builders' WebFOCUS BI platform presents detailed financial and production information to managers through boardroom-quality reports that monitor every facet of the organization.

Drilling for Data

Business leaders at Petrobras depend on information presented in a 200-page report book that includes dozens of charts and graphs. According to



Snapshot

Organization

Petrobras is the world's seventh largest oil company and the largest corporation in Brazil.

Challenge

Petrobras needed consolidated financial reports that reveal the performance of more than a dozen companies. Formerly, the related report book was difficult to create and modify, hampering productivity for the IT staff.

Strategy

Create a new report book anchored by a WebFOCUS performance management system. Use print-ready electronic publishing technology to help executives analyze every facet of the organization via dynamic, boardroom-quality reports.

Results

Detailed financial and production information is more accessible. Petrobras can generate new versions of the report book in 90 seconds rather than four hours.

Information Builders Solution

WebFOCUS, Electronic Publisher, services from InfoBuild Brazil.

managers at Petrobras' executive offices in Rio de Janeiro, the report book contains extremely valuable data, but it was difficult to create or modify using the previous BI tools. For example, report specialists had to manually create the final PDF output, an arduous process. If an executive wanted to make changes – a common scenario before important meetings – it took time to re-generate all the charts and graphs.

In some cases, the report book was re-created several times a day to reflect continually changing values at the database level, not to mention calculation changes, the need for new metrics, or a change to the associated comments. Petrobras management knew there was an easier way to generate these reports and present this important information. They issued a request for proposal and asked leading BI vendors to respond.

InfoBuild Brasil, Information Builders' representative in the area, supplied a proof of concept for a new report book. As part of this proof of concept, Information Builders revealed its plans for Electronic Publisher, a PDF Layout Painter that empowers managers to create pixel-perfect operational reports to their exact specifications. Taken with WebFOCUS, a powerful BI

and performance management environment, the Information Builders tools offered the capabilities Petrobras needed.

Easing the Flow of Information

Led by Luiz Camara, president of InfoBuild Brazil, InfoBuild used WebFOCUS Developer Studio to create a new version of the report book. They constructed a star-schema database as the foundation for a new set of key performance indicators (KPIs), with user-defined measures and dimensions.

"Based on this proof of concept, which included 20 reports and graphs, we got the buy-in to proceed," Camara says.

Petrobras was particularly impressed with the quality of the report output. WebFOCUS supports boardroom quality graphics via pixel-perfect positioning and scalable vector graphics (SVG). Vector-based graphics are fundamentally different from image formats, such as GIF or JPEG,

because they are not pixel-based and therefore allow for perfectly smooth curves and angular image elements.

During the ensuing one-year development project, Camara and his team created more than 500 reports and graphs using WebFOCUS, FOCUS, and Java. As part of the project, they

imported data from an Oracle database to a FOCUS database and used Information Builders Financial Modeling Language (FML) to develop statistical reports.

Meanwhile, back at Information Builders headquarters in New York City, the company was putting the finishing touches on a new PDF Layout Painter, which later became the WebFOCUS Electronic Publisher product.

"The two projects coalesced into a real-world implementation," Camara recalls, "and Petrobras was a



big help during product development. They researched optimum color combinations and they had an extremely sophisticated display environment – a war room designed with the very latest audio-visual equipment."

InfoBuild created unique electronic publishing features on Petrobras' behalf such as the ability to add comments to the report book, the inclusion of a table of contents, and the ability to display extra wide reports on the war room screen, which measures six meters across.

These capabilities are now a standard part of Information Builders' Electronic Publisher product, which can display images that combine four reports across a single screen.

InfoBuild used WebFOCUS Developer Studio and HTML Layout Painter to precisely position and display charts, images, and watermarks for the generation of ready-to-publish documents. This is essential at Petrobras, where executives require graphics of the highest quality.

This performance management system helps executives monitor, analyze, and manage operational data to fulfill corporate objectives – a continuous process of measurement, discovery, alignment, and communication. It includes consolidated financial reports from more than a dozen operating companies under the Petrobras umbrella, which handle everything from producing natural gas to exporting refined oil biofuels.

Petrobras now uses WebFOCUS to prepare the report book every

rather than four hours, and managers can easily add comments to the presentations.”

Authorized users need only a standard Web browser to view this print-ready content. These attractive documents act as a self-contained business intelligence environment, directly accessible from a Web page or a free Adobe viewer.

Exporting Value Enterprise-Wide

Based on the proven capabilities of WebFOCUS for the report book project, Camara foresees using the



“In just five months we constructed all the reports and graph templates,” says Camara. According to Petrobras, their former BI vendor took years to achieve similar results.

A Gusher of Operational Reports

Today the report book includes Corporate Performance Reports, a Board of Directors Summary, and an Administrative Council Summary, all of which can be sorted by month, quarter, and year. It also includes a Board of Directors dashboard and an Administrative Council dashboard. All told, there are 274 reports, 627 graphs, 696 layout pages, and 1,597 objects.

month and hands it out as a reference document before each meeting. It offers both pre-defined reports and automated runtime options, empowering managers to create operational reports to their exact specifications. For example, users can easily insert sections of a report, or even multiple reports, into a single HTML page. The charts and graphs are interactive: users simply hover the mouse above an item to drill down into the underlying data.

“WebFOCUS presents information in a very dynamic way,” Camara notes. “These BI tools enable Petrobras to generate new versions of the report book in 90 seconds

BI tools within other divisions. “We have been pleased with the success of the report book project, and Petrobras has expressed interest in expanding the BI tools to other parts of the operation, both in Brazil and abroad,” Camara says. “WebFOCUS is a flexible platform with great potential for many types of operational reporting.”