

Customer Profile

Information Builders enables agile information solutions with the WebFOCUS business intelligence (BI) platform and integration technologies from iWay Software.

Corus

Snapshot

Organization

Corus, based in London, is one of the largest steel producers in the world and a leading supplier to construction, automotive, aerospace, packaging, rail, and engineering markets.

The Challenge

Empower users with timely, comprehensive information on customer-order and steel-production processes drawn from SAP, a variety of mainframe systems, and other disparate data sources.

The Strategy

Satisfy a multitude of end-user reporting and analysis requirements by centralizing reporting via an intranet using purpose-built, value-driven data warehouses.

The Results

Speed of analysis improved significantly, enabling higher manufacturing yields and faster response times for customer inquiries.

Information Builders Solution

WebFOCUS, ReportCaster, iWay DataMigrator, FOCUS Desktop, and Resource Analyzer.



WebFOCUS

Steels Production Process at Corus

Start with some iron ore, coke, and limestone. Combine in a blast furnace. Blow in oxygen and heat to around 1,700 degrees Fahrenheit to make molten iron. Reduce carbon content until you get liquid steel. Cool into slabs.

That's the process for basic oxygen steelmaking in the simplest of terms, but there's an enormous amount of raw materials and processing involved before the steel is ready to be sold and made into a sports car, railway track, or even a simple soft-drink can. Every one of those processes has hundreds of variables that need to be calibrated perfectly to ensure the end product is high-value, high-quality steel. Any defects or flaws in the process can reduce yields and value, and in the worst case, the product ends up in the scrap heap.

Corus, one of the world's leading steel producers with plants throughout the world, knows the importance of having iron-clad business systems. The highly competitive steel industry demands it. For this reason, Corus has embarked on a mission to close the competitive gap by being a more cohesive company and fostering an environment of continuous improvement. This ethos clearly extends to IT and is why Corus uses WebFOCUS.

“The data warehouse paid for itself in three months.”

Galvanizing Success

Corus supplies many of the most dynamic markets around the world, including building and construction, automotive, aerospace, packaging, railways, and engineering. Corus IT is organized into various groups that support multiple business units and thousands of users. One of these is the Business Systems department, which focuses primarily on end-user computing and data warehousing for Corus Strip Products UK, Corus Packaging Plus, Corus Colors, and Corus Tubes, otherwise known as the strip division. “Each business unit has different systems and different reporting requirements,” says Anthony Batts, a senior business analyst. “There were many reporting tools being used and very little standardization.”

Following a strategic directive from Corus CIO Bruno Laquet, representatives from the hubs investigated a number of leading tools in choosing an enterprise reporting product that could be rolled out to the entire organization. At a minimum, the winning solution had to be Web-based with the ability to report easily against SAP Business Warehouse and Oracle data sources. After an exhaustive search, including functionality reviews and vendor presentations, the committee chose WebFOCUS from Information Builders, a solution that was already in use at a number of business units, including Corus Strip Products UK.

A Computing Evolution

Corus and Information Builders have enjoyed a long, productive relationship that began with the implementation of Mainframe FOCUS in the late 1980s. Back then, the business units in the Welsh hub needed to report against a variety of mainframe data sources from their process-control systems, including ADABAS, DB2, Supra, and DL1. FOCUS was the only reporting solution that could deliver. From that point forward, the Corus reporting environment naturally evolved in step with major shifts in the IT industry and with product development at Information Builders.

First, FOCUS Desktop reporting solutions provided users with powerful functionality in a client-server environment. This greatly reduced mainframe computing costs and gave Corus power users more impact on the front-end and easy access to a multitude of data on the back-end.

Then came WebFOCUS and with it the opportunity to centralize reporting via an intranet, making it easier for all users to develop and distribute reports. Having recently upgraded to WebFOCUS, Corus now intends for the majority of employees to build and deploy reports on the Web. “Using the browser in a server-based reporting environment is so much easier for everyone,” says Batts. “Plus we don’t have to worry about version control and software upgrades for each department, it is now centralized.”

Coordinating all the data from the various legacy systems and platforms could have been daunting. However, iWay Software, an Information Builders company, provided a flexible data architecture that satisfied Corus’ information requirements in the beginning and still does today. Using iWay DataMigrator, a set of fully automated tools designed to dramatically simplify data integration, Corus creates data warehouses to assemble the information and support a variety of reporting and analysis applications. DataMigrator employs iWay’s award-winning adapters for seamless access to and migration of virtually any enterprise data. Its easy-to-use interface enables fast, flexible end-to-end ETL process creation involving Corus’ multiple data structures across disparate computing platforms. And because the DataMigrator integration engine provides complete data structure transparency, all the different data sources appear as a set of relational tables – so cross-platform, multiple-database extractions and joins are just a mouse-click away.

“WebFOCUS definitely makes it easier for people to do their jobs. Instead of ringing up IT, users have the tools they need to build precisely the reports they need.”

The latest company-wide strategic directive has the whole company migrating to SAP – another step toward organizational cohesiveness and one that WebFOCUS is well-positioned to complement in terms of reporting against SAP Business Warehouse.

Iron-Clad Business Intelligence

For any given manufacturing process in the highly competitive steel industry, factory managers are challenged to keep the yields as high as possible. To accomplish this goal at Corus, raw data is collected at every process step on the plant floor, primarily from process control systems. There may be literally hundreds of variables for each piece of material. For example, the materials' composition changes at every stage of the process due to fluctuations in levels of carbon and silicon. iWay DataMigrator transfers this mass of data into huge Oracle data warehouses on an Intel server. WebFOCUS is then used to extract process-control data for through-process analysis, which helps Corus find the root cause of any defects in the material and understand any variations in yields.

“Before WebFOCUS, it took around two weeks to gather data and manually analyze the production of one coil,” recalls Batts. Now Corus Quality Assurance staff can see the lifecycle of each coil by looking at the WebFOCUS report that's automatically generated for them in the morning and distributed using WebFOCUS ReportCaster. This assists in understanding why processes run well or go wrong and what changes, if any, need to be made. In addition, the quality-control system maximizes the value of each coil because there are fewer defects in the end product. “When you consider that Corus Strip Products produces about 150,000 steel coils per year each weighing in at 15-25 tons, there is potential for massive savings,” Batts says.

Corus Packaging Plus, another business unit that manufactures in Wales and for whom Corus Strip Products UK is a supplier, also uses WebFOCUS to gain greater business intelligence from their operations. They perform end-to-end analysis on data in the warehouse, monitoring the entire production history of a piece of steel from raw material to the finished article, whether it is a soft-drink can or light reflector. The powerful system has enabled Corus Packaging Plus to identify problems with the production process and correct them, reducing costs significantly.

Achieving Manufacturing in Corus Strip Products

Before a steel coil reaches the end of the line, it must pass through several different production processes. It can be monitored by a number of parameters such as physical dimensions, grade of steel used, and customer-defined part numbers. Keeping track of orders and stock levels in a process where there may be several weeks between receipt of an order and delivery of the finished product can be a complex management task.

“For any one of our customers, we may have several hundred orders either on our books or in process at any one time,” says Allan Hodgson, Senior Business Analyst at Corus Strip Products UK's commercial headquarters near Newport in Wales. “In addition, our own manufacturing and warehouse facilities are spread across several locations and many of our customers, who depend on the information provided by the systems, are spread across the UK and beyond.”

Using WebFOCUS, order progress applications were developed to pull together data from all the systems, enabling account managers – and customers – to be informed of every aspect of an order at every stage of the manufacturing process. This enables the Corus account manager to pinpoint a product at each stage in the production process and determine exactly when the end product will be delivered.

Data Warehouse ROI

Corus Strip Products UK has at least 15 data warehouses for different purposes. Some are shared by everyone within commercial headquarters; others are very specific to departments that need data organized in a particular way. "The data warehouse we built for Packaging Plus' through-process analysis cost approximately 70,000 pounds and paid for itself in three months," says Batts. "We never had the capability to deliver the reports required by the project until we built that warehouse."

Because of this, Corus business units are encouraged to build more data warehouses to analyse different aspects of data within the business, but each new data warehouse – and any new IT project – has to cost-justify itself before it gets the green light.

Corus works together with its outsourcing partner Capgemini to design and build data warehouses. The source systems are updated in the plants, which all use different databases because historically they were different companies with different systems. They use iWay Adapters and iWay DataMigrator to access and transfer data from the mainframe and three other platforms into an Oracle data warehouse.

Some data warehouses are updated every hour, some overnight. Currently, Corus runs about 200 DataMigrator jobs per night. "We recently upgraded servers and are running WebFOCUS on Windows 2003," says Batts. "Jobs that used to take an hour are now taking five minutes so we can fit a lot more into an overnight schedule." According to Batts, this is important on a shift-based work pattern. "When a new shift arrives at 7:00 am, everyone wants reports – they want to know the performance from the last shift and look to improve it."

WebFOCUS reports are run against the Oracle data warehouse to produce the information and graphs needed for the vast majority of Account Team and customer enquiries. A few power users also continue to use FOCUS Desktop to report against the data warehouse. To make things even easier, Corus has linked iWay DataMigrator to WebFOCUS ReportCaster, which means as soon as fresh data comes in reports are kicked off – a nice chain of events.

Integrate With SAP? No Problem

As part of a big IT initiative to standardize reporting environments, reduce integration points, and enable more cooperation between business units, Corus has begun migrating finance, procurement, and HR systems to SAP. Over time, more functions such as sales and distribution will also move to SAP. Corus expects this strategic restructure to deliver big business benefits by integrating systems that are now disparate, reducing overall IT spending and sharpening its competitive edge.

"The process data in the mills is not going away," says Batts. "One of the key reasons we chose Information Builders' WebFOCUS backed with iWay's integration capabilities is because it enables us to easily pull data out of many data sources and join it with other data in the data warehouse. It's very simple – SAP could be just another data source to report from."

Corus is considering another Information Builders product, the iWay SAP Adapter, that "listens" for SAP outputs and "pushes" requests out automatically. This presents an opportunity for time- and event-driven data warehouses, which Corus believes could be an opportunity going

Find Out More

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forward. "There would be less reason for users to need to report against the source, whether it's the mainframe or SAP," says Anthony. "With the capability for event-driven updates, the data warehouse becomes even more vital."

Users Have the Power

Corus does not believe in a restrictive reporting environment. They feel strongly that the people who know the data use the data because they can take the most value out of the information. From day one, they empowered users with training so they could simply and quickly create the reports needed. This philosophy holds true today. "WebFOCUS definitely makes it easier for people to do their jobs," Batts says. "Instead of calling on IT resources, users have the tools they need to build precisely the reports they need."

To coordinate the reporting environment and keep things running smoothly, there are power users in each business unit or department who coordinate, develop, and deploy reports using WebFOCUS. Since the overall user environment has been designed by Corus to be open in nature, power users are also responsible for making sure that reports are not queued on WebFOCUS ReportCaster before they have been tested. Corus uses WebFOCUS Resource Analyzer to help them get a clearer picture of what the users are doing. "With Resource Analyzer we can see how many reports were run in various environments, how long they take, how much processing power they use," says Batts. "We are not trying to control the way people work, just giving them more information to help them work smarter."

Information Builders' Consulting helped with Corus training in the beginning, but as the majority of IT support and services is now provided by Capgemini, they are the first line of support for Information Builders' products, followed by Information Builders' consultants. Capgemini trains the power users and the power users train everyone else. "One of the real benefits of WebFOCUS is how straightforward it is to use by staff with all levels of IT experience," says Batts. "Minimal training is required before users start producing their own reports."

Including Corus Strip Products UK and Packaging Plus, there are five main businesses within Corus that currently use WebFOCUS for end-user reporting: Corus Colors, Corus Tubes, and Corus Construction & Industrial. Batts believes that Corus and its customers benefit greatly from WebFOCUS, mainly by the speed of analysis and the resultant saving of time that can be put to better use in serving their customers' requirements. "The ease with which users can pull information from WebFOCUS reports positively impacts every part of the steel production process – from ensuring high-value product off the plant floor to keeping our customers informed and satisfied," says Batts. "The power of that information will help us to gain competitive advantage in the long run."