Fast-Track Business Intelligence with FieldDIRECT

Leveraging production data for business insight

FieldDIRECT® offers significant advantage to upstream operations by making it easy for pumpers to accurately report daily production and faster for the rest of the organization to see it. Enerpact adds value to FieldDIRECT by rapidly connecting its production data to other systems like Enertia, BOLO, ARIES™ and WellView®.

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Introduction

Production data is essential to upstream business management. It is the daily pulse of the organization. It provides the truth of how the company is doing and enables good decision making.

Access to production data is vital to many functions within the upstream organization. Accounting needs access to compare with revenue figures. Engineering needs access to perform reservoir surveillance. Executives need it to manage cash. The list goes on.

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Production Reporting and Surveillance

FieldDIRECT is a powerful tool for pumpers. It simplifies recording and submitting production data. It runs on tablets and PCs. It has a spreadsheet interface, familiar to pumpers. It can go into the field with the pumper for data entry right at the well site.

FieldDIRECT also improves data entry and error checking. Values from the previous day are automatically carried forward, pre-populating the data fields. Pumpers only need to enter values that have changed. A 30-day history helps the pumper recognize trends, deviations and data errors.

FieldDIRECT also stores data provided through data integrations and SCADA interfaces. This data can include gas meter and injection volumes, plunger lift, oil, gas, water and tank and well head pressures.

Before FieldDIRECT, many pumpers faxed their data or sent spreadsheets for each well. The data then had to be manually entered into a consolidated spreadsheet. With FieldDIRECT, the data is available faster and more reliably. The pumper simply uploads the data when ready via the Internet. Data is immediately available for the pumper to check and others to use in analysis and surveillance. Hours of staff time can be redirected from data entry to higher order work.

"We use FieldDIRECT for all our production data," says Robin Gorman, Manager-Production/Fleet. The majority of data is collected and uploaded by pumpers. About one-third of the wells are automated, feeding production data directly to FieldDIRECT. Gorman has used a variety of systems in the past and is very pleased with FieldDIRECT. "It is simple for pumpers to use and I love it."

Field staff and engineers access FieldDIRECT data to proactively manage wells and fields. They review graphics, pivot tables, variance reports and other monthly and daily templates. This surveillance is critical to success.

"Our engineers use FieldDIRECT and other tools from IHS like PowerTools® to do their surveillance," says Gorman.

Production Intelligence

Connecting production data to other disciplines like accounting and economics is a vital task for every upstream organization. Data must be available for combined reporting of accruals, for example.

Reservoir engineers need it to perform decline curve and fit, showing ultimate recovery and cash flow. Executives want to know cash flows and the actual versus forecast oil to gas ratio.

For many this integration is performed by dumping data to spreadsheets or doing dual window 'stare and compare'. FieldDIRECT and Enerpact together provide the means to connect data from disparate systems.

FieldDIRECT Data Services (FDDS) allows data to be extracted from FieldDIRECT databases. FDDS requests are made over the Internet. Data transfers are encrypted and secure. Enerpact uses this web service to access FieldDIRECT data and then connects it to other data from other systems for review and analysis.

While FieldDIRECT customers also have access to this service, they often do not have the IT resources to build custom reports. "Enerpact makes it easy for smaller companies to get around the need for in-house development expertise," says Becky Gibbs, FieldDIRECT product manager.

Enerpact provides greater visibility to field data. Gibbs gives the example of production versus revenue. "Accounting needs to reconcile what was produced with revenues received, requiring access to both accounting records and production data," she explains. "Enerpact makes that a lot easier."

To support production intelligence, Enerpact combines connectors, dashboards, applications and a virtual warehouse. Customers determine which data sources to include when. Connections can be built in days.
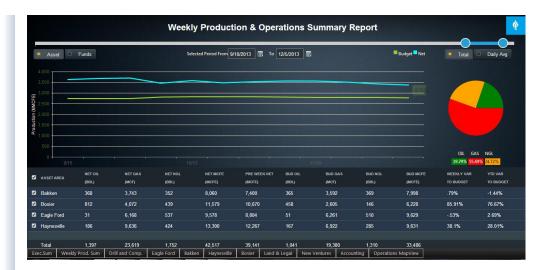
Connectors are used to add data from disparate systems like FieldDIRECT, Enertia, BOLO, economic and geologic databases. Data from these systems pass through the virtual warehouse to be correlated and calculated before presentation in the dashboard of choice. Dashboards provide insight at a glance and free users from dependence on others to extract, calculate and report data.

Configurable dashboards make it easy for users to visualize and analyze data from their preferred systems. Dashboards are

Weekly Production & Operations Summary Report

ASSET AREA	NET OIL (BBL)	NET GAS (MCF)	NET NGL (BBL)	NET MCFE (MCFE)	PRE WEEK NET (MCFE)	BUD OIL (BBL)	BUD GAS (MCF)	BUD NGL (BBL)	BUD MCFE (MCFE)	WEEKLY VAR TO BUDGET	YTD VAR TO BUDGET
Bakken	368	3,743	352	8,060	7,400	365	3,592	369	7,998	.79%	-1.44%
Bosier	812	4,072	439	11,579	10,670	458	2,605	146	6,228	85.91%	76.67%
Eagle Ford	31	6,168	537	9,578	8,804	51	6,261	510	9,629	-.53%	2.69%
Haynesville	186	9,636	424	13,300	12,267	167	6,922	285	9,631	38.1%	28.01%
Total	1,397	23,619	1,752	42,517	39,141	1,041	19,380	1,310	33,486		

as seen above are configured based on the user profile and data requirements, displaying reports, tabular information and charted data as desired.

The production dashboard presents tabular and chart data that combines production, accounting and economics data. This is the dashboard typically used by financial analysts for production intelligence.

The business intelligence center dashboard provides key reports defined by the company as its core set. Users specify parameters like dates, wells or fields and then run the reports. Data is retrieved in real time, ensuring access to the most current data.

The upstream dashboard is highly graphical, with the key statistics and data required by executives. This dashboard supports key executive decisions such as cash management. Net BOEs and NRIs are common data displayed in this dashboard.

The virtual warehouse coordinates data but stores only the basic details required to associate the data to each other. This ensures that data remains in synch and accessed in real time.

Where data exists outside of digital systems, Enerpact provides applications to house the data and bring it into the online system.

Examples include AFEs, budgets and forecasting and invoice processing.

"Our customers want to take analysis to the next level, and Enerpact can get them there fast," says Rick Griffin, IHS Director of Regional Sales, FieldDIRECT, Americas." Enerpact specializes in connecting data and presenting it the way it is needed to support better decision making."

"Our guys in the field need access to lease operating statements," says Tony Lopez, EnerVest director of planning and analysis. In the past, these statements came from accounting and then went into spreadsheets for analysis. Today they can pull up an LOS any time for any well, plus budgeting details and quarterly forecasts. "We needed something more economical and flexible than our existing systems could give us," says Lopez. "Picking Enerpact was a great decision on our part."

Speed Matters

Enerpact customers cannot afford to wait for lengthy deployments of complicated systems. They want fast implementation with quick return on investment. That is want Enerpact delivers.

Companies like EnerVest, RAAM Global Energy, Eagle Rock Energy Partners and Halcon Resources have all engaged Enerpact to connect their FieldDIRECT systems to accounting and other data. Enerpact has the experience to streamline the process for quick implementation, including a pre-defined set of common reports to kickstart the analysis. Initial work can be completed in a matter of weeks. Enerpact customers determine the implementation path best for them.

Rather than try to force their data into a single system, RAAM Global Energy (RAAM) is implementing a flexible model that can connect to their systems now and in the future. Those systems include Enertia, ARIES, WellView, FieldDIRECT and production data recorded in spreadsheets. RAAM can pick and choose what and when to connect for more informed decision making.

"By connecting our various systems we will get to the point where we can very accurately project future cash outgoes and incomes," says Sam Harms, RAAM Production Manager. "Anyone at any time will be able to calculate our net portion." The next step, he adds, will be to put a price on net production to forecast cash.

The value to RAAM is clear. "We can spend more time on analysis and decision-making and less time on correlation and data entry," says Harms. "We can start looking at the data earlier, more often and from more angles."

FieldDIRECT and Upstream ERP

Connecting FieldDIRECT to other systems for production intelligence takes upstream operations down the road toward overall enterprise resource planning (ERP). Think of it as simply adding more connections and dashboards for a broader view.

ERP has a bad reputation in some circles because of the cost and risk typically involved in a classic implementation. In that classic model, existing systems are often subject to 'rip and replace', causing big disruption in the organization.

With Enerpact, the ERP system grows according to your needs. Start with FieldDIRECT and production data access. Add production intelligence by connecting the particular data you need to the dashboard presentation that is optimal for you. Then add other data like budgets and forecasts, invoice management, ownership allocation reports when you choose.

"Enerpact has the oil and gas experience needed to pre-define reports and dashboard displays," says Griffin. "You can then pick and choose what you need. It's a very efficient process."

Like most upstream businesses, EnerVest had several different systems that tracked well-related data and no easy way to get a 360° view. "We needed to generate reports that drew from multiple sources like BOLO, ARIES, WellView and FieldDIRECT," says Todd Guest, EnerVest Accounting Vice President. Guest is particularly pleased with what he calls the speed of information. "Enerpact took

away the delay," he explains. "The executive team gets information faster, better and more consistent."

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