

Field Data Capture Systems

Time is money

The bottom line is that oil and gas companies need to reduce costs and increase profitability. Time is money and the more time that staff are required to expend on the collection of the data, the less time they must devote to the analysis of the data and the implementation of cost cutting and profit enhancing measures.

Production deferment tools are vital and allow the operator to link production outages to specific maintenance events, resulting in a clearer analysis of production issues. In addition, depending on the region that the company is operating, there could be legislative requirements that need to be enforced and field data that needs to be relayed to government bodies for approval.

WHAT EMERSON CAN DO FOR YOU?

The Data Management consultants have extensive expertise with the implementation and support of Field Data Capture software:

- iSolERA A highly configurable field data capture, production reporting & volume accounting software solution, learn more about iSolERA.
- PVR Among the leading production management systems on the market today, PVR offers companies an efficient means of collecting, compiling and reporting field data.
- Peloton ProdView is an interactive, visual production management system that captures the physical flow of all fluids (such as oil, condensate, gas, water, sand) through a gathering system.
- Tietonator Energy Components Tietonator Energy Components is a field data capture system used in both the conventional and heavy oil spaces.

FIELD DATA CAPTURE (FDC)

FIELD DATA CAPTURE (FDC) is the gathering and analysis of manually entered or electronically uploaded data from field equipment. Oil and gas facilities have hundreds of metering points. The data from these metering points is required by multiple departments within an organization. Some of the field data is necessary to meet government reporting requirements. Data must be collected on time and accurately in order to reassure the recipients of that data of its validity.



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THE FDC SYSTEM

An FDC system can range from:

- Hand written log books
- Excel spreadsheets
- FDC software

Regardless of the system being used to capture the data there are a few fundamental requirements:

- Data must be accurate.
- Data changes must be auditable.
- Data must be available to multiple groups and departments within a company, and to external partner companies.
- Data must be available to different departments with different urgency.
- Operational issues must be identified and resolved daily, whereas production accounting groups need data on a monthly basis.
- The system must be flexible and expandable when new employees or equipment is deployed to the field.
- The system might be required to share data with other applications.

Based on the fundamental requirements, the options for capturing data can be further analyzed:

- Hand written log books would be difficult to share with multiple groups and the data may not be available in order to resolve operational issues depending on the amount of data being captured.
- Excel spreadsheets would be easily shared between groups but, as with hand written log books, the data may not be available in order to resolve operational issues depending on the amount of data being captured.
- FDC software could be easily shared between groups, and if most of the data is downloaded electronically then the data would be available in order to resolve operational issues.

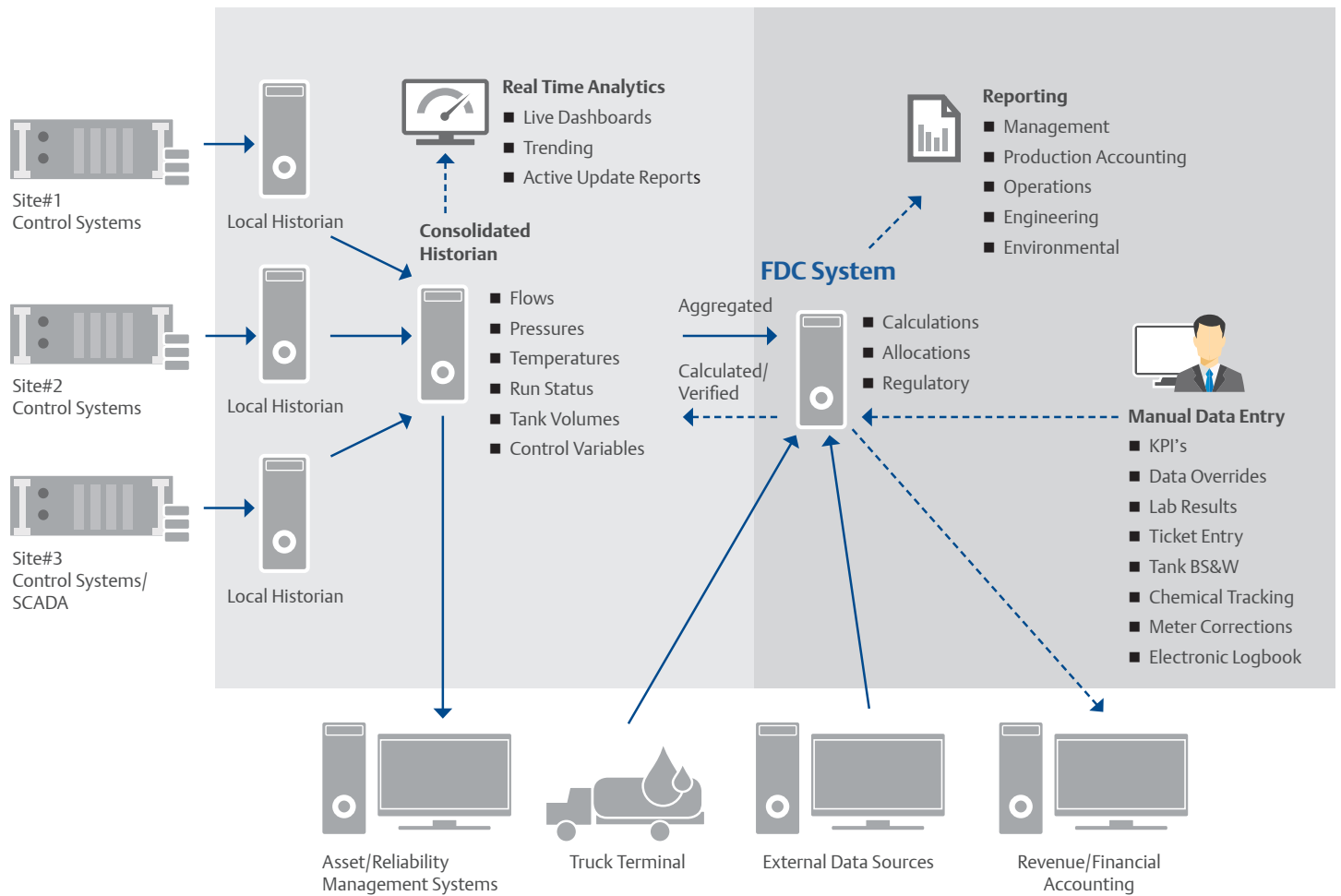
DATA CAPTURE

Current methods of capturing data include:

- Manual entry: written on paper, typed into software
- Electronic capture: downloaded from the field in various formats with one of many interface options
- To be printed for filing
- To be uploaded into FDC software for analysis and verification



EMERSON'S RECOMMENDED DATA FLOW



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COMMON ISSUES

Problems faced by oil and gas companies regarding electronic collection of data include but are not limited to:

- Fragile handheld devices that are cost prohibitive for company wide use
- Software maintenance of systems that must communicate
- Feasible plans to allow for data capture during system downtime or offline
- Company IT bandwidth limitations

BENEFITS OF FDC

The benefits of excel or FDC software is that the application can perform some of the analytics and calculations necessary for the operator or engineer which gives the user more time in the day to determine solutions for increasing profitability rather than spending that time performing the calculations. Also, there is a reduction in duplication of work and effort when all the data and calculation results are available from a single source. The benefits of moving towards cloud based data availability is that it eliminates the oil and gas company from requiring the IT infrastructure and in-house staff which also increases profitability.

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