

Insight



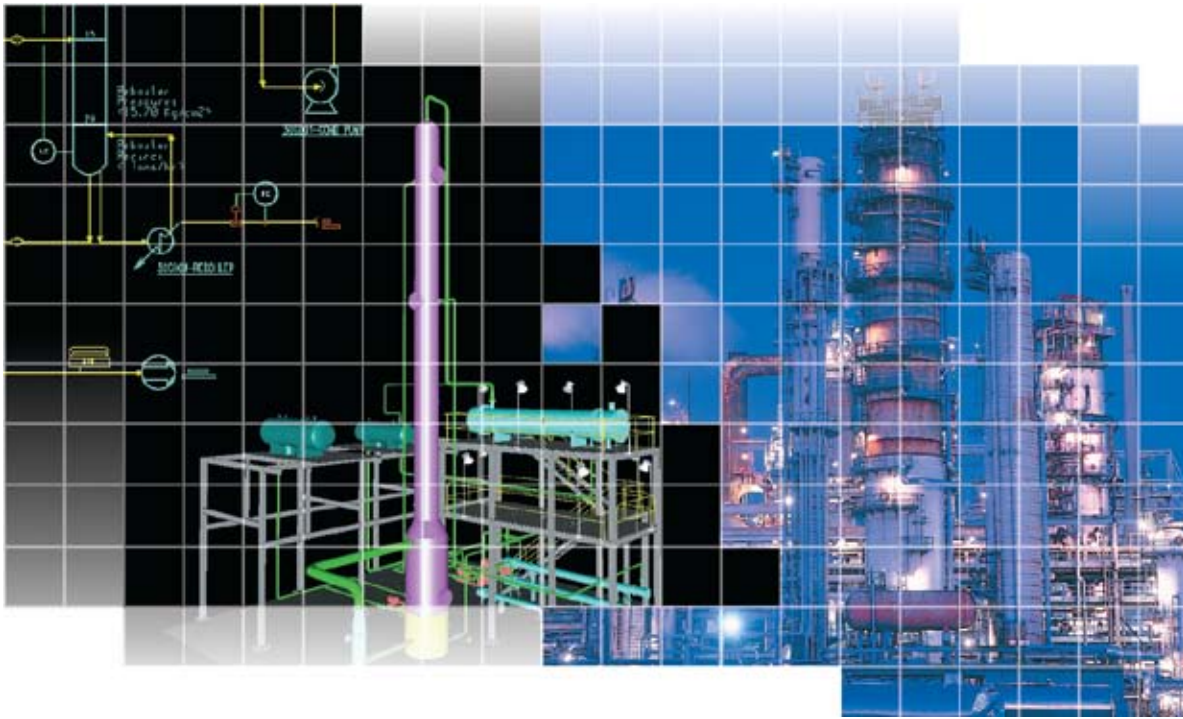
The Future of Engineering Productivity

Industry Perspectives
When is Information an Asset?
Research on EPC IT Investment

Concurrent engineering
**PBMR and SNC-
Lavalin Nuclear**

Productivity gains
Nynas

Higher standard
**Sinopec
Engineering**



When Is Information an Asset?

Demonstrating ROI from project or plant data

■ By Joe Morray

For a number of years, I have had the pleasure of observing the successes and challenges in applying information to the capital projects and operations world on the last page of each *Insight* (unless you are a mystery book reader and typically read from the back forward).

I frequently refer to creating the Information Asset™ and the importance that we attach to recognizing the value of project or plant information. But the question frequently arises: “When is information an asset?”

Business value

The concept of the “Information Asset” came about many years ago as a way to reinforce the message that information being created through our systems contains considerable value, which needs to be managed just like the corresponding physical assets that it describes. This is both an opportunity and a challenge.

As designers, technologists, process engineers, etc., we need to describe the information that we create not just as “data” — no more than we would describe a physical asset as concrete

or steel. Instead, we should think of this created information as a complete system that can support design, maintenance, retrofitting and more. This represents a huge business value.

Keeping data current

We need to move from a “cost line” mentality to the “investment line.” Just as a physical asset, project or plant information needs to be maintained, improved and further extended as new business requirements are identified.

Information must be seen as “living and breathing.” This concept reinforces the need to create work practices to keep this information current. This will ensure the safety and viability of two other assets — the physical and the human.

Proving ROI

Our challenge is to clearly demonstrate that a return on investment related to the plant or project Information Asset is being achieved. Data become an asset only when they are clearly tied to business activities that sustain the business.

To support this, we must define and implement day-to-day metrics associated with the system/

data usage that enable trending, relative performance and concrete results to be measured. Note that such measurements should start before the system is operational.

Value creation “litmus tests”

So how do we ensure that information is creating value in a plant environment? From our experiences, here are some value creation “litmus tests” to consider:

- The information must be broadly accessible in a form that is fit-for-purpose to the activity. One of the fundamental rules of data value is that data value increases as the information is reused. Our challenge is to identify where the information that is being created can be multi-purposed.
- Business processes flow through the information. If it is difficult to access the information as we work, it will be quickly forgotten or bypassed. We need to have the information available at the “train station” before the “train” leaves without it. In other words, the right information must flow to the right processes at the right time.

Data become an asset only when they are clearly tied to business activities that sustain the business.

- The job of a designer, process engineer, etc. is to predict the performance of a physical asset. Will the asset operate safely? Can it be maintained easily?

This prediction process is performed through a language of “pictures and lists.” As information is used to simulate a wider range of parameters, including cost, maintainability and safety, the value of the information grows considerably. The incorporation of rules within design systems will enhance this ability to simulate performance.

- The information is used for a broad number of work processes. Each individual workflow may not be complex, but a collection of numerous processes yields the maximum value. The focus

must be placed on processes that are performed every day, not unique (and usually complex) single instances.

Data asset examples

What are some examples of companies that have turned data into assets? Here are just a few:

- Project turnover, from design to commissioning, becomes a natural migration, not a discrete event. Best practice companies understand that the project Information Asset will become the plant Information Asset. The information must be structured so that the plant Information Asset is created as a byproduct of the project Information Asset, as opposed to a separate and expensive work process occurring after commissioning.

- Plant information (drawings, specs and procedures) is accessible from a variety of systems, including maintenance management/work order, spare parts and ERP. Best practice companies seek ways to leverage information across the enterprise so that it can be accessed at all levels, as opposed to having “knowledge centers” in which only a few experts can access and disseminate data.
- A major electric utility implemented a drawing-based system to manage its multi-billion dollar environmental projects at 27 power stations. Each facility works from a consistent system to store, retrieve and edit information. By the way, it completed this in just two years. The utility is now enjoying a tremendous return on investment that will continue throughout the facility lifetimes.
- The best EPC companies use models to coordinate their worldwide design and procurement activities for their own personnel as well as subcontractors. Their motto is, “If it’s not in the model, it doesn’t exist.” Think about performing a global project without the system. Clearly, the model is a valuable asset.

Becoming an asset

So when does information become an asset? It becomes an asset when a majority of the following conditions are met:

- You can measure business results
- Information is used every day
- Information is accessed by numerous functions in a fit-for-purpose manner
- Information is current
- Processes could not be performed without the information
- Information can be leveraged to multiple optimization evaluations.

Joe Morray is president of Trinity Technologies Corp., a process and power industries consulting firm that helps owner operators and EPC firms succeed in the use of information systems. The company specializes in driving companies to align work processes, technology and organizational change requirements for the plant environment.

www.trinitytechnologies.com

