A Diagram Worth 1,000 Words

How TrakSYS™ Visual Workflow Revisualizes MES Rollouts
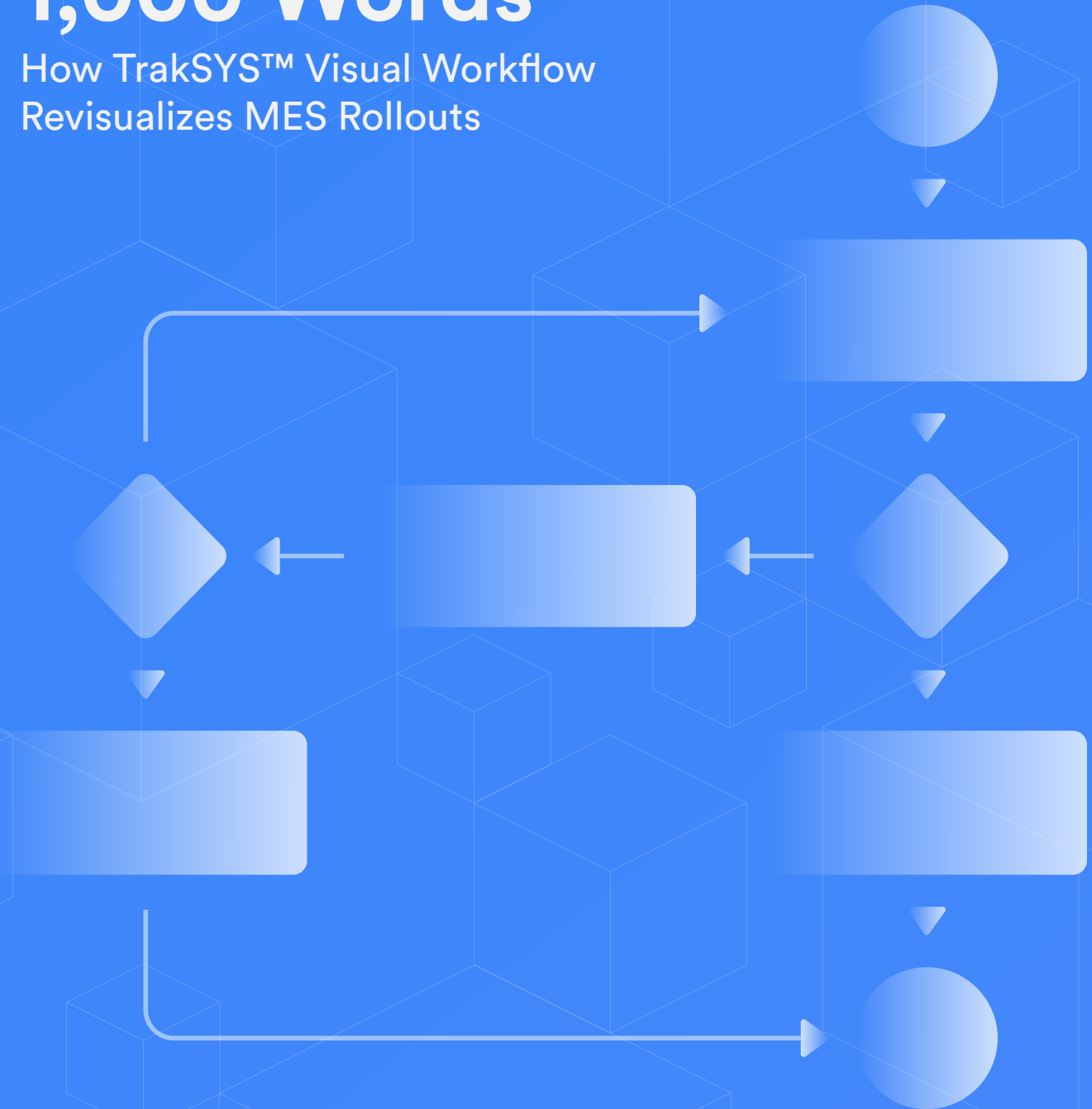
MES Projects are Complicated

MES projects are notorious for being difficult, time-consuming, and costly. Traditional techniques used for modeling and executing MES projects can become mazes of scripting and configuration that can only be successfully navigated by the original teams that designed them. As the years go by, and those teams retire or move on, the MES project that was meant to solve business needs can become a locked-down relic that users fear to alter, lest they interfere with the system's ability to function.

TrakSYS Visual Workflow Service Accelerates Solution Design and Delivery

TrakSYS Visual Workflow seeks to refresh the image of MES rollouts by empowering the users and architects of today and tomorrow. In the earliest stages, the layout of an MES solution, (as well as existing operations and functions), is often diagramed on paper. These visual diagrams go on to become the configuration and scripting for implementation purposes. The TrakSYS Visual Workflow tools are designed to make it possible for users and system architects to replace their paper-based diagrams with a digital, dynamic, and contextualized modeling environment within TrakSYS. Solution interactions are orchestrated using unified diagrams and built-in workflow functions (waiting, execution, transitions, splitting, merging, etc.). By creating a living, visual layout of the MES solution, users and architects can continue to grow, refine, and gain real-time feedback from their implementation for years to come.
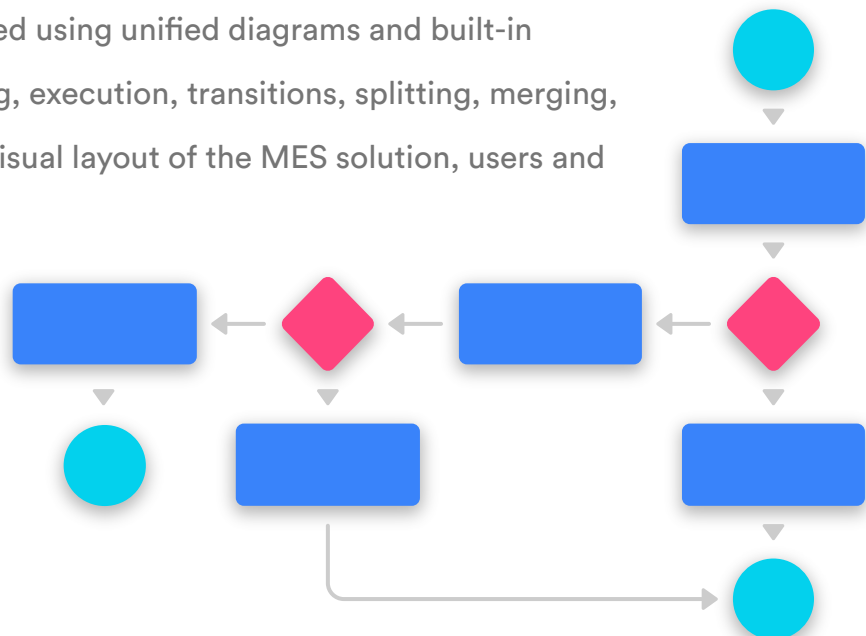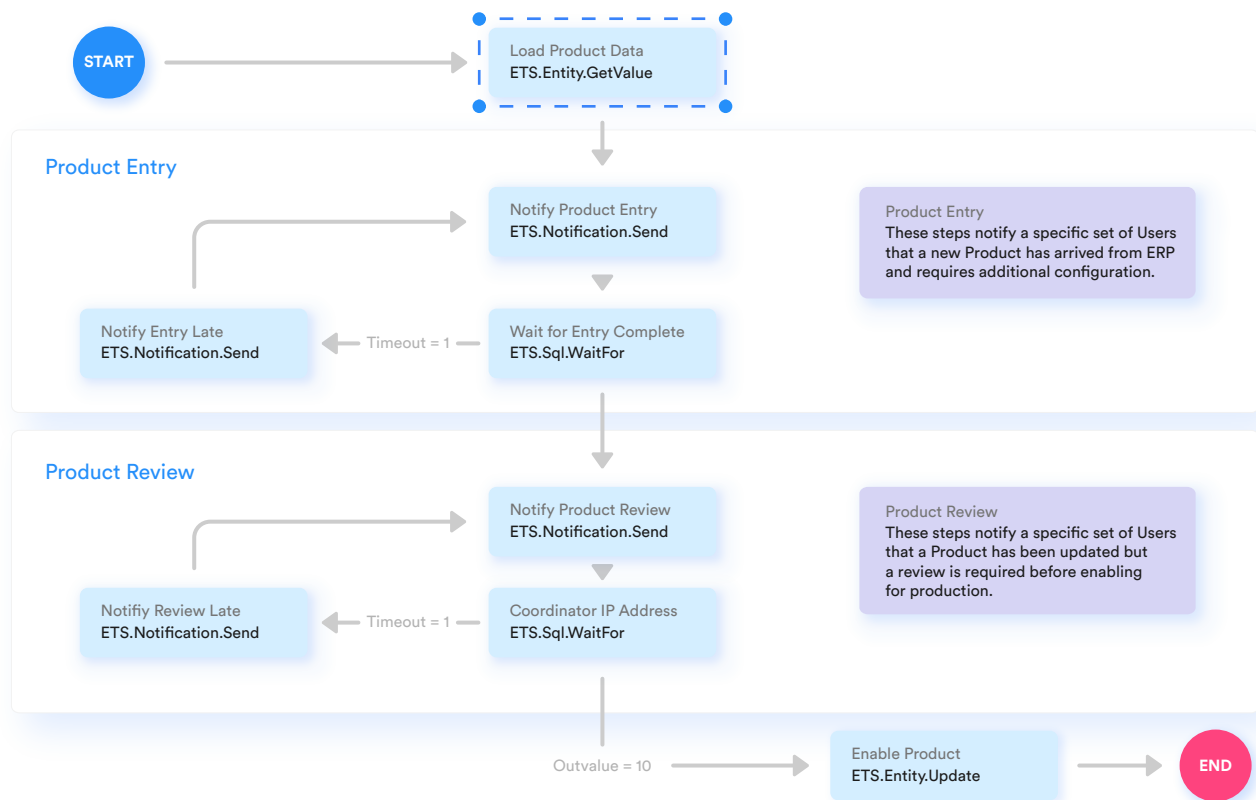
The Value of Visual Workflow

Collaborate

Business and technical users can collaborate to create traditional workflows that describe the desired processes. The Visual Designer has been fashioned to closely mimic traditional workflow diagrams, making it easier to transfer concepts from paper/whiteboard into the digital solution. This also allows non-technical users to participate more closely in solution development, as they can more easily "see" what is being configured.

Create

Defining a Workflow or "Process Definition" allows for a common pattern to be executed repeatedly over time. The building blocks or "Process Steps" can be dropped on from a library of pre-set functions, or solution-specific step logic can be specified. Process Steps are connected visually using drag-and-connect arrows to form the business flow.

START

Load Product Data
ETS.Entity.GetValue

Product Entry

Notify Product Entry
ETS.Notification.Send

Product Entry
These steps notify a specific set of Users that a new Product has arrived from ERP and requires additional configuration.

Notify Entry Late
ETS.Notification.Send

Timeout = 1

Wait for Entry Complete
ETS.Sql.WaitFor

Product Review

Notify Product Review
ETS.Notification.Send

Product Review
These steps notify a specific set of Users that a Product has been updated but a review is required before enabling for production.

Notifiy Review Late
ETS.Notification.Send

Timeout = 1

Coordinator IP Address
ETS.Sql.WaitFor

Outvalue = 10

Enable Product
ETS.Entity.Update

END

Execute

The powerful multi-threaded Workflow Service runs in the background fulfilling requests to start and execute instances of Process Definitions. If required, instances of this service can be deployed across different infrastructures to scale workflow execution or isolate critical processes.

Visualize

As Workflow Processes are executed, the real-time state can be visualized using standard Content Parts and Pages. These live diagrams allow operations users and management to monitor complex processes and quickly determine status, as well as any issues that may be occurring.
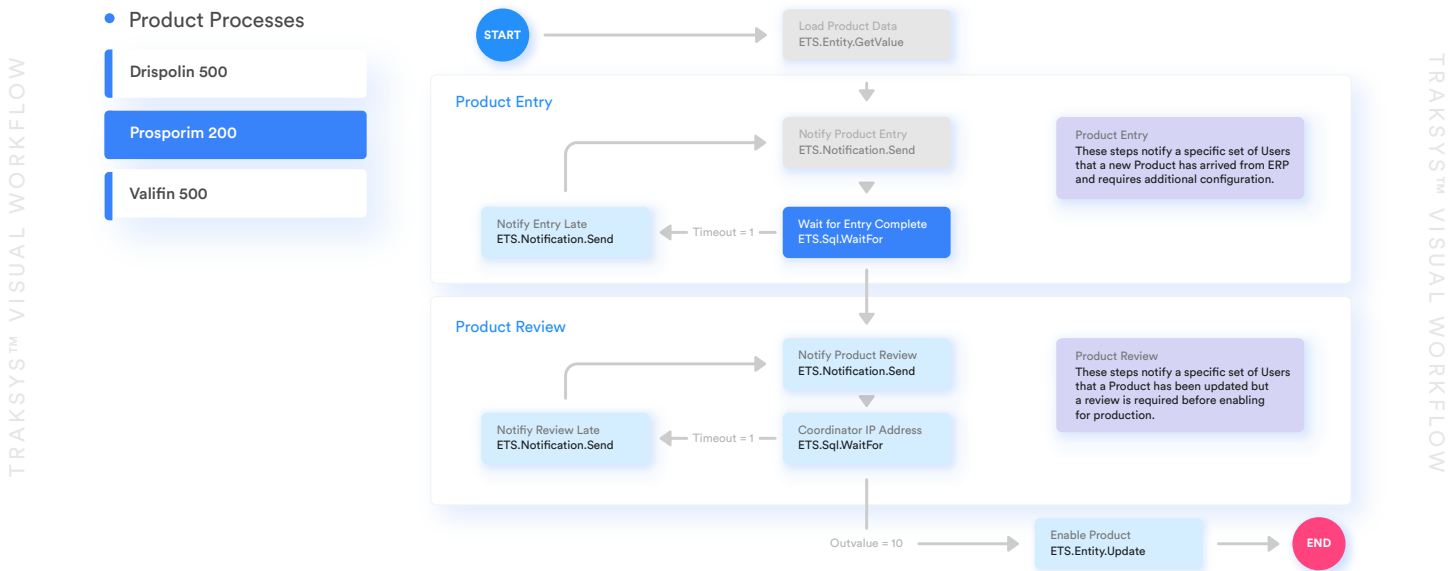
Iterate

Traditional solutions where rules and complexity are hidden behind the scenes often can lead to much more challenging process improvement and life cycle management when the original technical resources are no longer available. The visual nature of the Workflow configuration and monitoring encourages the evolution and improvement of business processes. Process changes become easier to plan, implement, and test, allowing the solution to evolve with the business for years to come.

Picturing the Future

The TrakSYS Visual Workflow is a service of the TrakSYS platform. Extending the core functionality of TrakSYS, the Workflow tools are utilized at the beginning stages of implementation as system users and architects begin building the framework of their TrakSYS deployment. As your teams (and business needs) evolve and change, the diagramed, arrow-connected system architecture enables new players to learn, contribute to, and care for your MES deployment. By creating visual solution architecture, TrakSYS Visual Workflow gives you the tools you need to empower your teams and operations – today and tomorrow.