

SIMPLE, VISUAL AND INTERACTIVE

Environnement

- Discreet production environment
- **High mix, low volume**
- Great complexity (in process and flow)
- Integrating a large human capital component (high expertise)

Benefits

- Save Capital Investment, Time and Costs
- Improve product quality
- Give material flow **efficiency**
- Eliminate waste during production
- Reduce Lead Time
- Reduce the **distance travelled** by personnel or material handling
- Increase overall plant productivity
- Simulate the plant throughput
- Reduce inventory

Functions

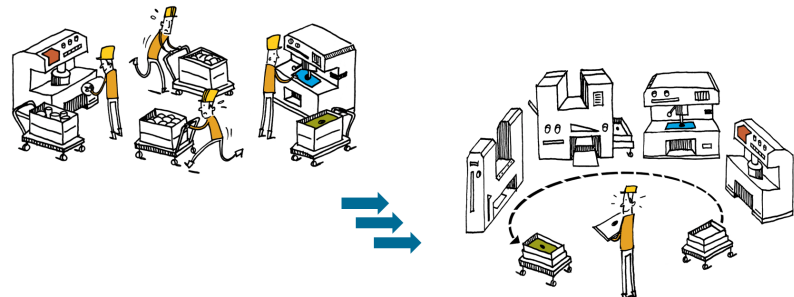
- Easy to use
- 2D factory layouts to **facilitate the understanding** by all the stakeholders
- Only few amounts of required data to perform analysis
- Immediate assessment of KPIs
- **Multi-scenarios** and dashboards to compare the different alternatives
- Automatic optimization of the layout to target the best solution
- **Incremental transformation** by building manually your own good solution
- Automatic identification of product families
- A **collaborative approach** to facilitate the change management
- Multiple types of licenses available (fixed, floating, renting by jetton or period)

About

SIMOGGA Layout Design is a unique and innovative tool used to visualize, quantify and optimize factory layouts based on global flow analysis. It is a tool that guides manufacturing companies through the **improvement and optimization process** that allows them to achieve operational excellence. SIMOGGA Layout Design aims at improving factory efficiency by **decreasing complexity** in the flow analysis process that permits plant management to take strategic decisions.

It is a software tool that permits manufacturers to visualize and modify production flows and it allows them to redesign their factory through a helicopter view by using easily modified spaghetti diagrams; which permits to see all the optimized flows by the repositioning of machines, moving of factory equipment, combining of unnecessary workflow stations and analysing of the required investment to simplify the flows and dedicate equipment's to product families.

SIMOGGA Layout Design cultivates on the **knowledge and experience** of all key players involved in the improvement process from plant managers to operators. Its interactive ergonomic user interface allows a **collaborative approach** for all actors involved to allow them create efficient plant layouts and help them prioritize improvement ideas which make for better process efficiency at different levels of production. The uniqueness of the software is the fact that it allows ensure all the **operators involvement** to design solutions that facilitate the process of change by improved layout efficiency which accelerates the decision-making process.



Business value

As the number of competition in the international marketplace is increasing, surviving in this environment is not easy. Sustainable Manufacturers are always searching for ways to produce high quality products at the lowest possible price to deliver satisfaction to their customers. Having a **flexible production systems** allows to respond to these needs and reach objectives with as few resources as possible. SIMOGGA Layout Design gives manufacturers a chance to define adequate processes for current or new products by having a global flow analysis which allows them to take strategic decisions, build solutions to save capital investment and time. SIMOGGA Layout Design is a tool used for workflow analysis and layout optimization in production plants combining visualization and quantification of the change processes. It supports **Lean manufacturing** methods that helps to transform factory layouts from **functional to cellular**.





Decrease Traffic within the production unit by **10 to 30%**



Decrease Workload in the factory by creation of **product families**



Accelerate the decision-making process



Awaken the **reactivity** to market demands



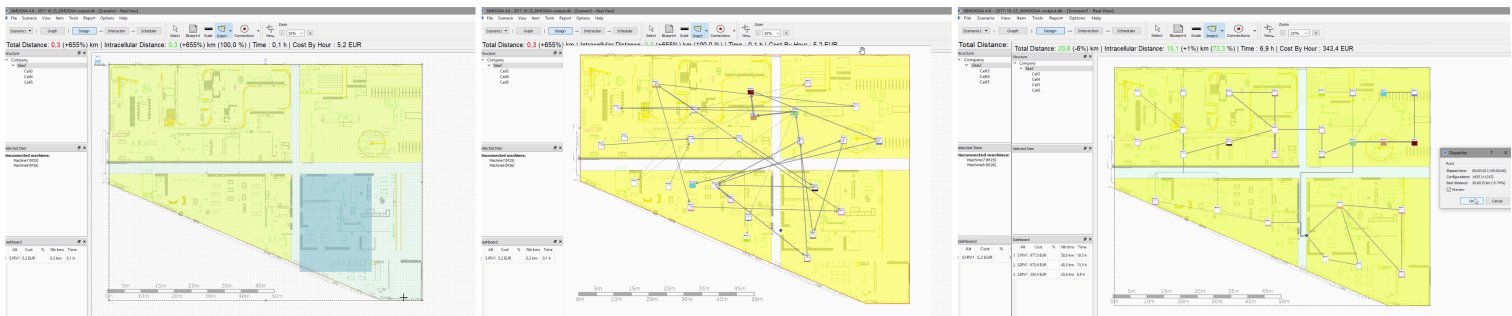
Collaborate information about the factory's production

SIMOGGA Layout Design features

- From macro to micro data: set global data and progressively increase the granularity
- Analyse the different flows (products, operators, supply, waste...)
- Make a **Costs/Benefits** analysis for each level of transformation (Kilometers, Costs and Time spent in the transport, Lead Time and Work-In-Progress) to accelerate management's decision-making process
- Support the **Lean Methodology** by automatically analysing the **Spaghetti Diagram** and Dynamic **VSM** (Value Stream Mapping)
- Support Quick Response Manufacturing (**QRM**) methods by defining the product families and forming the cells to easily manage the factory (Cellular Manufacturing)
- Support Systematic Layout Planning (**SLP**) by simplifying the process of layout creation (Site, blow-ck and detailed layout) in all-in-one

Simulate to achieve a consensus

- The customer extracts their data from an ERP (or another database) to fill in an Excel sheet to be transformed it into an "xml file"
- The data can be directly collected or changed through the SIMOGGA user interface
- The data and its reliability can be validated thanks to the visual view of flows and equipments
- The user creates the As-Is situation with SIMOGGA to analyse the current KPIs
- The user analyzes the data using SIMOGGA solutions to generate an efficient factory layout
 - A **graphical view** to allow the flow analysis without any constraints (technical, historical or cultural)
 - A **factory view** to design the layout, to improve the flows and to build various scenarios before applying the best one
 - A **"quick compare" scenario** interface to test and validate the changes of the production (demand variation, new product, new mix product, new investment...)
 - A high **interactivity** rate to capture the input of the operators and create a consensus
- The plant managers chooses the solution that best fits their needs



Data and building Features

- Use a simple picture of the factory **blueprint** to design the layout
- Support different types of areas such as site, building, floor area and cell to focus the analysis on identified areas
- Build the aisles for each zones by adding crosspoints, In/Out
- Create cells manually to keep the ownership of the solutions
- Create **product families** based on the cells or on various methodologies (Production Flow Analysis, ROC, similarities)
- Automatically optimize the location of equipments by zone or globally
- **Optimize cell** formation with a genetic algorithm
- Create your own **filters** (by products, machines, operators, product families)
- Simplify the flow analysis using filters to decrease the complexity
- Quickly identify machines operating below or above their capacity

Analysis/Results Features

- Review the layout taking into account all the part-mix ratios, not Pareto because 20% of the products will generate 80% of perturbations
- Analyze the traffic without technical, historical or cultural constraints in the graphical view
- Analyze the traffic with a specific layout using the "factory view"
- Build and test any layout solutions thanks to the great interactivity
- Compare the scenarios within a **dashboard**
- Analyze aisles **congestions** and direct connections between machines
- Show all possible routes within the factory to precisely evaluate all flows
- Export the results in CSV, TXT and PNG formats for more reporting flexibility