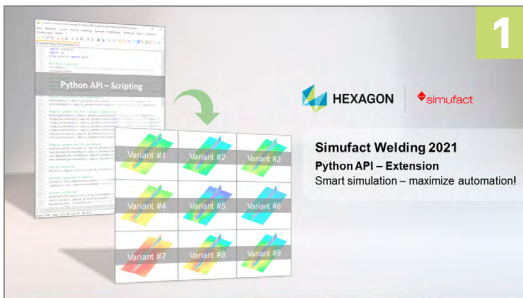




Simufact Welding

# Top 5 Highlights in Simufact Welding 2021



## Extension of Python API

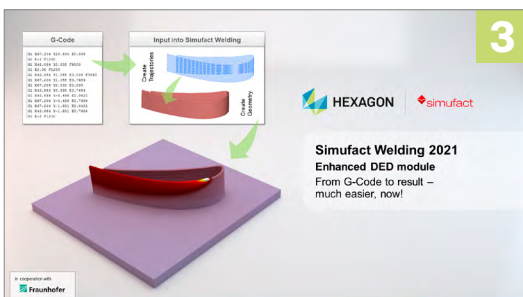
Simufact Welding 2021 allows the user to automate model creation, such as the import and the positioning of his parts, the creation and the assignment of objects necessary to the process and their process definition. In addition, Simufact Welding 2021 now automatically initiates post-processing such as the creation of measuring points wherever needed, and exporting or copying results into subsequent processes. Once the results have been exported from Simufact Welding 2021, our user can analyse them without any limits using Python programming language.



## New weld bead creation tool

Until now, modelling certain welds such as butt welds required for for an additional software.

Simufact Welding 2021 has integrated a new weld bead creation tool, that serves for a complete control over any shape of your weld beads. Whether you need to simulate square butt welds, V-butt welds or T-joints with a gap: the new weld bead creation helps you to easily, quickly and intuitively create them within one welding simulation software.



## Enhanced DED module

We have improved our direct energy deposition (DED) module so that users can easily create a geometry based on the trajectories after the G-Code import. Afterwards he generates the mesh for his simulation.

Further enhancements improve the stability, robustness, and ease of use in both: model generation and simulation of DED processes.



Simufact Welding

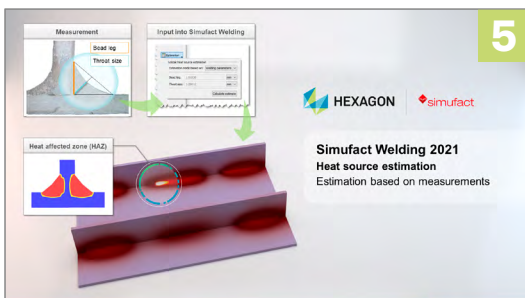
# Top 5 Highlights in Simufact Welding 2021



## 4 New cost estimation module

Simufact has enhanced its range of applications by including a basic cost estimation module as technical preview. Users can now estimate the costs of each process variant in advance and optimize them prior to production.

The new cost estimation module makes it possible to estimate itemized and total costs of each variant. This allows the user to compare different welding processes in terms of cost. The holistic calculation engine considers fixed costs such as maintenance and labour costs, and variable costs such as material and tooling consumables and the cost of energy used.



## 5 Enhancement of heat source definition

Defining the heat source is essential for a welding simulation. Simufact Welding 2021 simplifies the heat source definition so users can focus on their process setup.

Look forward to two major updates to the heat source definition:

1. The Goldak's heat source geometry and power can be estimated by using the geometric parameters of a weld bead dimensions from a weld plan or a cross-section from experiment.
2. In addition to the conventional heat source definition by specifying the speed, power and efficiency, users can now easily specify the target temperature, the temperature tolerance as well as the maximum current and the maximum voltage.

## Additional improvements

Our user enjoys a various number of modernizations in Simufact Welding 2021: The GUI, the icons, the product window, the splash screen as well as the installation wizard.

In addition, our version numbers of any new software release have changed starting with Simufact Welding 2021. In the future, further feature packs will be referred to as 2021.1 and service packs as 2021.0.1.

Overall, 1130 improvements (new features, bug fixes, documentation and other improvements) have been incorporated in Simufact Welding 2021.

