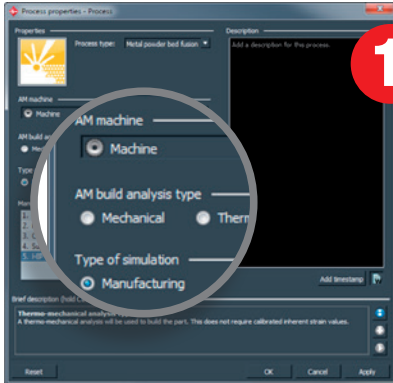# simufact additive

i

Top 5 novelties in Simufact Additive 3

1

Thermo-mechanical calculation method

The build process is simulated in layers through thermo-mechanical method. It allows users to make statements at an early stage about global thermal behavior in the part, for example, to detect thermal peak loads. This method is physically more accurate, since real machine parameters are used, including thermally relevant parameters such as laser power, laser speed and predetermined temperatures in the construction chamber. This brings the simulation closer to the familiar manufacturing process. A further advantage of this method is that the pre-calibration is not mandatory.
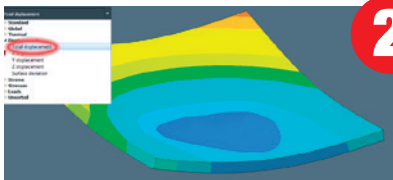
2

Version 3 predicts influences of base plate on the component

During the additive manufacturing process, distortions and residual stresses occur both in the workpieces and in the base plate. The latter can affect the properties of the support structures and the component. With Simufact Additive 3 you can determine the influences of the base plate. As a practical application, the user for instance may determine when the base plate has become too thin and an exchange is required.


LINUX solver

Source: Larry Ewing

3

## Simulation on Linux machines and Linux clusters

Simufact Additive 3 offers a Linux solver in addition to the Windows Solver. Thereby the software is now available for simulations on Linux computers for instance on high performance Linux clusters. The operation of the software through the GUI continues in the Windows environment.
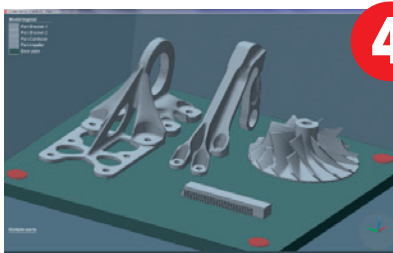
4

Multiple Parts: Simultaneous simulation of several components in the build space

In practice, several geometries are usually arranged and printed in the build space simultaneously. With Simufact Additive 3, the user quickly and easily models the thermal printing process of several geometries in the build space and recognizes at which point the components influence each other.
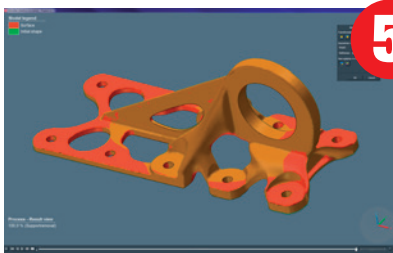
5

Best-Fit method: By touch of a button compare simulation and reference model

In Simufact Additive 3, users can compare simulation results and reference model (e.g., CAD data) by mouse click using „best-fit" positioning. In the best-fit method, the software automatically determines the position at which the deviations are lowest. The visual presentation of the results, based on measurements, allows the user to quickly assess whether the deviations are within the permissible tolerances. For this function, Simufact has integrated Hexagon's 3DReshaper technology.

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Please find a detailed description of the product functionalities on our website:
simufact.com

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