



SCIENTIFIC DATA HUB

Task

Today, interdisciplinary teams of experts are increasingly needed to develop new solutions in design and manufacturing. When different departments cooperate closely and when there are many alternatives for a technical solution, data accumulate in such a variety that they cannot be properly structured and maintained with classic tools. Often, new materials or processes have to be adapted to changed requirements even during the process and equipment development.

Method

The core of integrated development is being able to trace and replicate the procedure and the data thus generated and to evaluate them correctly. Ideally, users should be able to comprehend how the knowledge was gained at any time, while also taking into account the boundary conditions. Systematic storage of experimental results is just as important here as following workflows when tests are carried out. The simple use of the solution must always be in the foreground.

Results

The concept of the Scientific Data Hub implements the best of software development, content generation on the web and systematic procedures in scientific research. Workflows are specified at critical points, versions saved during analyses, and status reports summarized by all users jointly. This procedure creates an environment with maximum flexibility and is comprehensible for sustainable development of manufacturing technologies.

Applications

The principles of the Scientific Data Hub are essentially aimed at solving tasks in the field of research and development. When transferred to industrial sector, the hub could also open up potential to continuously improve quality and efficiency in manufacturing.

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