



TECHSOFT – connecting technologies



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PRODUKTBLATT

ModelSearch: Fast Search for 3D Data in Creo Elements/Direct

When different parts have a similar geometric shape, a purely name-based search can never be unambiguous. In many cases this leads to parts having to be constructed from scratch instead of reused - the wheel is continually reinvented.

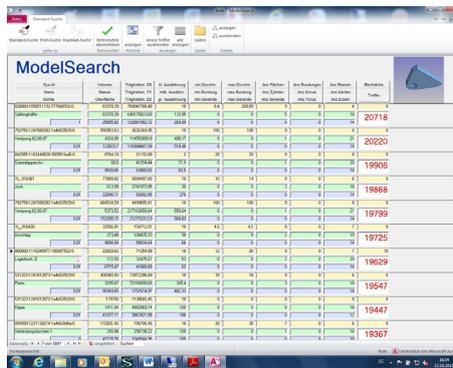
ModelSearch is a tool that allows searching for 3D parts without prior classification. In ModelSearch relevant geometric information about parts is saved automatically in a separate database.

Geometric information of previously stored components indexed according to characteristics is compared with the reference part. This search takes only seconds and provides a preview of similar parts very precisely. If a similar component is found, this may serve again as a reference part for a subsequent search.

If a person searches for a component that has already been used once, he can locate it by means of alphanumeric methods with variables such as name, part number, etc. If several similar parts are displayed, ModelSearch helps find the really suitable variant. Thereby, details of all relevant geometric information facilitate the selection. Queries automatically determine information about

- Dimensions, areas, moments of inertia
- Surfaces, volumes, masses
- Diameters, curves, planes, angles
- Threads, plate thicknesses, plastic castings
- Details of hole patterns

In addition to searching for similar parts, search for parameters is also supported. The query is performed directly by Creo Parametric and/or Creo Elements/Direct.



picture top:

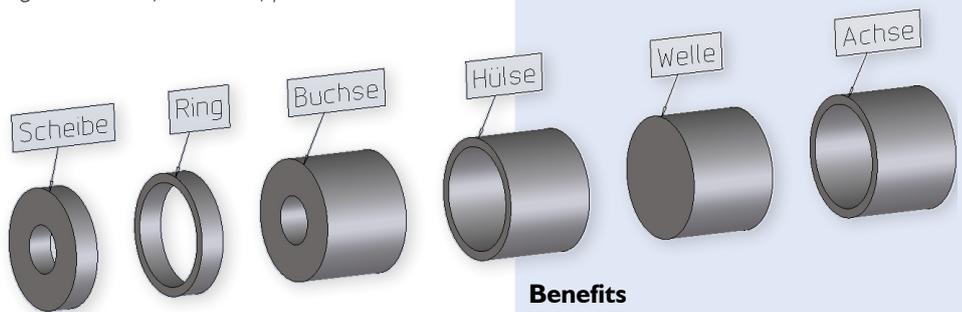
physical search

picture middle:

difficulty of subject cataloguing

picture bottom:

geometrical information of parts



Alle Flächen = 4
Volumen (mm³): 8444.6
Oberfläche (mm²): 3518.5
Masse (g): 66.3
Zylinderflächen = 2
Ebene Flächen = 2
Alle Kanten = 4
Alle Eckpunkte = 4

Functionality

Integrated searching by Creo Parametric, Creo Direct and Creo Elements/Direct as well as Creo Elements/Direct ModelManager and Windchill PDMLink

Extension for alphanumeric searching in the database

Automatic capture and storage of geometric information in a separate database (about 20 kB per part), recording takes about 1 second per part

Queries based on geometric information

Search for similar parts and for parameters

Benefits

Classification is no longer necessary, high effort eliminated

Easy to use, even for employees outside of engineering

Results are delivered graphically and with accurate dimensions

Shortens development time

Reduction of costs, because not every part is „reinvented“

Reduces duplicates in the system and thus storage costs