

A UNIQUE TOOL FOR QUICK AND EFFICIENT SEARCH FOR 3D MODELS BASED ON SHAPE AND TEXTUAL ATTRIBUTE

Manually locating CAD parts is a time consuming effort and slows down the decision making process. 3DSearchIT is a geometry (shape) based search tool which allows optimal reuse of existing knowledge bases to dramatically reduce time-to-market and improve cost efficiencies.

Knowledge and information reuse are vital elements to maintain the competitive edge and ensure business success. 3D models are being increasingly used by engineering enterprises as the basis of their design and engineering activities. Engineers spend approximately 30% of their time searching for appropriate 3D information. Traditional text based document search schemes are not effective for classification, search, and reuse of 3D data. A search tool that locates similar parts and allows engineers to spend more time creatively is much needed. An effective tool contributes significantly in reducing costs and time-to-market.

3DSearchIT

3DSearchIT is a patent pending shape geometry based search engine, which allows users to instantly locate CAD files based on 3D shape criteria, unlike conventional search engines which rely only on text based attributes. The technology can work with any 3D CAD format.

By representing raw 3D data, 3DSearchIT technology provides an efficient tool for 3D information retrieval and reuse at just about any scale. It can be integrated with any PDM system, and its web-based part catalogs provide the ability to reuse existing product data.

Benefits

- Design reuse
- Part standardization
- Improved part management
- Effective vendor management
- Reliable manufacturing plan
- Quick response to RFQs



Shape-based search

Model	Release	Value
3d test model 1	TestModel1	TestData1
3d test model 2	TestModel2	TestData2
3d test model 3	TestModel3	TestData3
3d test model 4	TestModel4	TestData4
3d test model 5	TestModel5	TestData5
3d test model 6	TestModel6	TestData6
3d test model 7	TestModel7	TestData7
3d test model 8	TestModel8	TestData8
3d test model 9	TestModel9	TestData9
3d test model 10	TestModel10	TestData10

Attribute-based search

Features

- Shape/ geometry-based indexing and searching of 3D data
- Search based on attributes in CAD document
- Independent of CAD file formats
- Supports automatic crawling and indexing in local machine/ network
- Automatic visualization of clusters of similar models
- User enabled search preferences and display of results
- Platform flexibility and ability to be deployed over PDM systems, CAD modelers, standalone application or web-based servers



Duplicate groups identified by 3DSearchIT



Clusters identified by 3DSearchIT



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