



Press Release

Date: 05/09/08

CADFind adds 'Group Technology' option for cell family search

CADFind Sketch & Search has now been developed to identify potential families of parts for cellular manufacturing automatically – the first commercially available graphical retrieval system to be able to do so.

Currently, the process of finding families can be based on finding parts that look similar in shape, for example; by using visual inspection of parts or by finding common process routes using Production Flow Analysis. However, such methods can be slow, inaccurate or both and therefore are expensive and likely to lead to sub-optimal cell designs.

CADFind solves these critical cellular manufacturing design problems by providing an effective way of identifying potential cell families. The system automatically identifies groups of similar parts and then allows the user to refine the groups interactively. The refinement facility makes full use of CADFind's extensive searching capabilities (CADFind can search up to 40,000 parts in 3 seconds) but allows an engineer's product and manufacturing knowledge to be properly employed in the process. The engineer can use CADFind's ability to load parts into popular CAD systems to examine or analyse a part in more depth.

This version of the software not only supports cell family formation but also allows users to build custom applications to meet their own special business and engineering requirements.

"Although some research and commercial systems currently offer part clustering, none of these have been designed specifically for this task." says Dr Doug Love, Research Director of the company behind CADFind: Applied Search Technology. "CADFind is the perfect solution because it has the benefit of having years of research at Aston University into 'Group Technology' behind it so we have a very clear view of what is required."

CADFind is simple to use, even for casual users, and consequently requires little training or preparation. A company's wealth of past designs, including those only held in 2D formats, can be checked as a normal part of the way that the designer creates or modifies parts in their 3D CAD system. In addition, companies could save thousands of pounds in part design by allowing the user to search, retrieve and use geometrically similar parts from their database, based on a customer drawing, simple sketch or 3D model. CADFind GT can now support part standardisation projects through its ability to detect groups of similar parts.

"I have used various versions of CADFind over the last three years," says CAD Designer Tom Tanner. "I've found it to be a great time-saving tool for doing my design and drafting work as it's easy to use and its automation means there is not much technical input required from me."

A video demonstration of CADFind GT is available at <http://www.sketchandsearch.com>. If you would like any more information or would like to review CADFind, please contact Paul Burkwood on 07810125991 or email paul@astltd.com.

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Notes to editors:

Applied Search Technology Ltd was formed in 2004 by Doug Love, Jeff Barton and Neville Holmes as a 'start-up' through Aston University's Business Partnership Unit. It is currently based in Aston Science Park on the University campus. CADFind is the result of many years of research into part retrieval and classification and the system has been tested on genuine engineering databases of over 400,000 drawings.

The vast majority of current retrieval systems, like those used by product data management systems, work by using text descriptions. However, this causes difficulties when there are multiple types of part or parts which are the same but have multiple descriptions. CADFind works the way designers do - the user sketches what they want and CADFind locates it. Once a part is found the 3D model or 2D drawing can be loaded back into SolidWorks for viewing or modification. Interfaces are available that allow CADFind to interact with all the main 2D and 3D CAD systems.

Part coding systems (or Group Technology codes) are a proven technology and have been around for many years but they have always needed a skilled engineer to interpret the drawing and produce the code. Manual coding rates rarely exceed 100 parts per day per engineer meaning it would take a skilled engineer well over a year to code a modest database of 30,000 parts. With CADFind one click coding, no skill is required and parts can be added to its database almost instantaneously.