

GET AUTOMATED!

VTS EXPRESS™

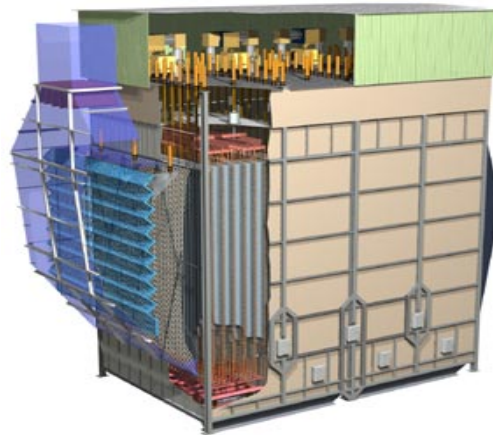
with Intent! by Heide Corporation

V I G A N I T E C H N I C A L S E R V I C E S , I N C .

The Emerging Field of Knowledge-Based Design

Knowledge-Based Automated Design (KBAD) is a paradigm that involves automating tasks involving geometry, engineering, configuration, drawing production, costing, etc. KBAD applications incorporate all the necessary design information to produce automated outputs. A KBAD application is driven by rules such as codes and standards, engineering calculations, data base information, manufacturing requirements, or simple designer preference. KBAD is typically used to quickly develop customized designs and arrangements for engineered products. The output of a typical KBAD system can include 3D models, 2D drawings, Process and P&ID drawings, Bills of Material, Cost and Schedules. Input to a KBAD application is typically through a Windows type GUI.

KBAD applications are normally custom written for each user. In that regard, VTS employs AutoDesk's AutoCad® or Mechanical Desktop® together with VTS Express™, a custom application developed by VTS written in Visual Basic®, and/or Intent™ knowledge-based software by Heide Corporation.



Knowledge-Based Design Can Help your Business

Knowledge-Based Automated Design will drastically increase your productivity by allowing you to provide design-to-order products and systems at a fraction of the time and cost it would take to perform the work using conventional methods. KBAD also minimizes human error since the design rules and arrangement constraints are built into the system. Other benefits of KBAD include the ability to:

- Quickly optimize components and assemblies.
- Perform fast and easy "what if" explorations.
- Respond quickly and accurately to proposal requests.
- Quickly generate 3D models, detailed drawings, estimates, bill of materials, etc., anywhere, even at a customer's site.
- Generate photorealistic renderings of your product whether or not the product has ever been built.

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Accurate

The fundamental architecture that utilizes a fully specified 3D model insures accuracy of the final design. VTS Express™ is designed to minimize, or completely eliminate the need to access drawing databases or, for some applications, even to draw. Input data is kept to a minimum by embedding databases in the code that key important parameters to, for example, the model number. Therefore, long lists of required input are eliminated. To assist in the accuracy of the input that is required, filters that restrict the data can be incorporated, or pull down lists can be supplied. Human error is almost entirely eliminated.

Customized

VTS Express™ is custom written to your specific needs. A computer model for your application is constructed using Intent and Autodesk's AutoCad®, or using Autodesk's Mechanical Desktop®. Every dimension or design option that can be altered is defined by a parametric variable. Thus, altering the model is merely a matter of specifying the desired dimension or design option. This is accomplished by answering some simple questions on an input form in a front-end program written in Microsoft's Visual Basic®. In many cases, the user need input little more than a model number.

Flexible

In VTS Express™, model updates are not constrained to dimensional variations. Depending on your needs, the number of components or subassemblies can be varied, as well as the location of parts. In fact, entire designs can be interchanged based upon the design rules incorporated into the model. VTS Express™ can also be configured to provide numerous types of output including: 3D models, 2D drawings, exploded views, bill of materials, cost estimates, spreadsheets, databases, text documents, etc. For convenience of the user, output can be printed directly from the user's workstation or opened in its native application for additions or modifications.

Fast

This architecture results in a program that is exceptionally fast. In production tests VTS Express™ could produce a general arrangement drawing of a complex industrial filter system in less than 15 minutes, from program launch to final output. Normal drafting time for this drawing was between 3 and 20 hours.

Contact us

Contact us directly to find out how we can help you reduce design and drafting time, add new dimensions to your presentations, and change the way you do business.

VTS Express
with Intent!

Interactive CAD

Parametric CAD

Expert Systems/
Typical
Languages,
Configuration
Systems



Comparison of Technologies

*comparison information provided by Heide Corporation

VTS

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VTS is an official Value Added Reseller of Intent! by Heide Corporation.