

THE INDEPENDENT MAGAZINE FOR CATIA, ENOVIA AND DELMIA USERS



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# REACH NEW HEIGHTS THROUGH EDUCATION & TRAINING

4th Annual Salary Survey

COE Spring Conference Preview

THE OFFICIAL MAGAZINE OF



## The Learning Channel

No matter how many years of experience CATIA users have under their belts, there is always a need to fine-tune user skills. (This was especially true as CATIA moved from V4 to V5.) We hope you find our special education and training section helpful, and that it gets your creative juices flowing.

## Good Housekeeping Architectural design and CATIA V5

Richard Cozzens

**C**ATIA has a lot to offer the design and manufacturing worlds. However, I have seen few instances where it has been applied to the world of architectural design. With a little investigation, I concluded that special training and systems requirements made CATIA V4 prohibitive to most small architectural firms. (Two-dimensional drafting was sufficient for their needs and could be met with lesser CAD systems.) But CATIA V5 has the ability to change all that.

CATIA V5 now runs on the same system as lesser CAD systems, yet offers improved capabilities. Firms that pump out volumes of slightly modified plans in 2D (with a lesser CAD system) may not find CATIA V5 advantageous. However, for firms that require unique designs with a three-dimensional (rendered) preview, CATIA is perfect. I am aware of low-cost, off-the-shelf design packages that allow users to preview a design in 3D (and these design tools are fine for standard designs), but when it comes to customizing, analyzing and previewing a design, the tools prove limited and, in most cases, useless.

To test this theory I used CATIA in an Architectural Design Class at Southern Utah University (SUU) last semester. (I used an Autodesk product alongside CATIA V5.) I found that constraining the floor plan was a powerful tool, allowing for quick updates. Once the change was made, it would be propagated throughout the design. With the power of knowledgeware, accurate detail construction views as well as a complete bill of materials could be generated.

With CATIA V5, I was able to complete the house in varying degrees of detail, and the students in my Basic CATIA class assembled and furnished the house with cabinets, sinks, tables, chairs, couches and even pictures on the wall. *Figure 1* previews the basic house, with a cut-out section displaying the wall detail and the furnished living area. *Figure 2* shows an example of what a creative student was able to do with the power of CATIA V5. SUU students that contributed to this project are Jared Mortensen, Amenta Anderson, Larry Evans, Farah LeFevre, Kris Sorensen, Steven Stoker, Tracy Day and Laura Strebel.

*The house assembly, along with additional CATIA V5 information, models and projects are located on [www.shroff1.com](http://www.shroff1.com). For questions and/or comments, contact Richard Cozzens at [cozzens@suu.edu](mailto:cozzens@suu.edu).*

*Have a comment about this article? Send it to [editorial@catiasolutions.com](mailto:editorial@catiasolutions.com).*



Figure 1.

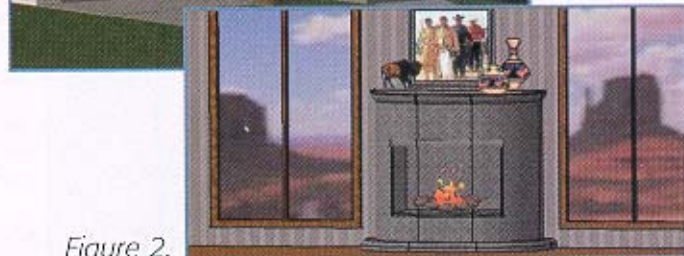


Figure 2.

## All Together Now The state of education and industry partnerships

Jeffery Maestas

**C**ATIA V5 is well on its way, and many organizations are still asking the same questions: how will my people get the training they need and how will I effectively migrate my legacy data to V5? A solution may be as close as your local college, university or junior college.

IBM's Higher Education and Training Program (H.E.A.T.) provides an invaluable service to colleges, universities and community colleges by allowing these institutions to acquire DELMIA, ENOVIA and CATIA products at deep discounts. These schools, in turn, are able to offer their students opportunities that would not normally be feasible or available to them. The industry benefits as well with a source of inexpensive training (available locally) and a stable of trained V5 users. When partnerships are forged, mutual benefits occur and ingenious solutions are created.

One reason to tap into student talent is that students are generally unaware of the capabilities and limitations of legacy products (V4 and earlier) and are not tied to preconceived notions or product peculiarities. They attack problems with fresh approaches and do not have to overcome "the way it's always been done." Also, they often have been exposed to other software packages and bring ideas and solutions they've discovered to solving problems they are presented. You only have to attend a CATIA Operators Exchange (COE) conference to witness the unique solutions students have developed in established partnerships. In addition, students are not tied to rigid