



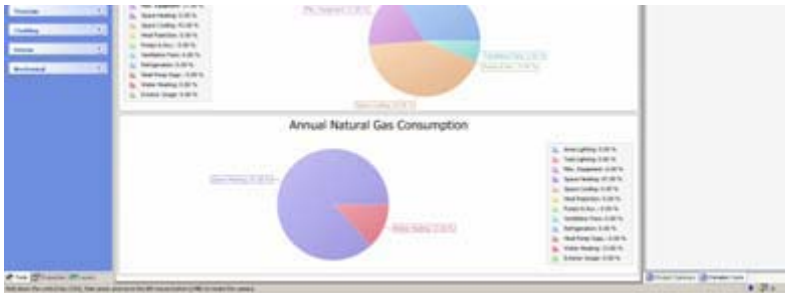
## What's all the fuss about Sustainable Design?

Whether you are a Republican or Democrat. Whether you believe Al Gore's Global Warming Hypothesis or not. One thing is sure: Sustainable Design is a very hot topic. To an old mechanical engineer, it's kind of funny. We were taught to conserve and optimize the consumption of energy years ago. That might even be considered the central purpose of mechanical engineering. So, we can just say "thank you" to Al Gore for the hysteria he has caused and the red-hot market that has ensued. It is now very fashionable to drive a Prius and unfashionable to drive a Hummer.

So, what is the impact on architecture and building design? Well, good architects are doing what most were doing anyway, and BIM software vendors are all scurrying to link up to as many energy software as possible. The recent USC symposium on the subject was primarily an exposition by each BIM vendor of their status. Some of the vendors have tied their BIM software in tightly with one "Green software", if I can call it that. Other vendors have worked on interoperability with several. Seems to me that the latter strategy is preferable at this stage of the market. Who can say which green software will be the market leader in a year or more. I believe Bentley has the right approach. Since Bentley is the interoperability leader (more file formats on the Save As/Export/Import), it was very easy for them to link to quite a large number of Green software. In addition, they are doing tighter integrations with a number of software including: Ecotect, Trane's Trace and Green Building Studio, plus more. Here's a list of the other energy software that Bentley is interoperable with: BSim, DeST, Energy Express, EnergyPlus, eQuest, HAP, IDATCE, IES, PowerDomus, Tas, Trnsys, and no doubt more. In case you don't know those software, there is a great place to get up to date. The Department of Energy's website lists a total of 300 different software. Some available at no charge and others available as commercial products. There are probably at least 50 of those software that deserve serious consideration. The DOE has an article on their site that analyzes about 20 products. Here is where to go for that:

[http://www.eere.energy.gov/buildings/tools\\_directory/](http://www.eere.energy.gov/buildings/tools_directory/) HEED, the software developed by Professor Murray Milne at UCLA, is a must for anyone who is just starting to look at green building software. It is a free download from: [www.aud.ucla.edu/heed](http://www.aud.ucla.edu/heed) You will find it very easy to use and deceptively powerful. It is built on a database of standard weather data, so a building can be modeled at its actual location. The steps are simple: specify number of stories, square feet and location and you get a couple of energy consumption estimates right off the bat. Then, you actually layout the building, landscape and hardscape in a very simple way. Place windows, position on the lot, specify roof, wall and





We are glad to be a part of Sustainable Design.

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