

Topic:
CAD

The JPR 2008 CAD Report

CAD Report sees New Growth in 3D

iCAD is produced by Business Advantage, a B2B research, business development and marketing consulting practice operating in the global IT, Digital and Telecommunication sectors.

"We were surprised to see the vitality and growth in the CAD market. Not that we didn't believe what the vendors were telling us, but they've been telling us the same thing for so long. You truly do forget that the CAD industry moves slowly and for good reason, these really are the levers that move the world."

Kathleen Maher, Jon Peddie Research.

CAD - at one time it was ground breaking technology. It was the first practical manifestation of computer graphics and it helped spawn several productive lines of thinking including virtual reality, virtual prototyping, and eventually product lifecycle management. It would also be fair to say that after a decade of revolution, CAD seemed to become a mature market with little capacity to surprise — at least to those outside the realm of CAD. Instead, the attention has gone to computer games, movie special effects, and consumer content creation. All those fields are fascinating indeed but while we were all distracted, the CAD industry has been ramping up the revolution and there's a new ball game going on.

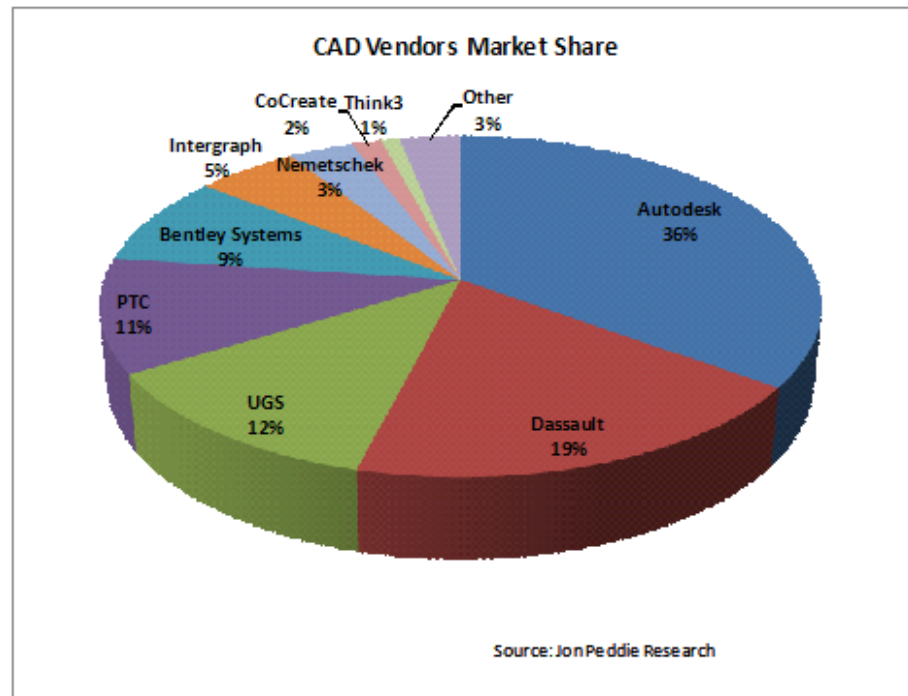


Figure 1: Worldwide market shares for CAD software.

On one hand it may seem the computer aided design industry is a specialized industry, the territory of architects, engineers, and seriously geeky guys in shirtsleeves with pocket protectors. There are those, but as the CAD vendors will tell you, CAD is involved in everything that is built or manufactured. The vendors are pushing a 3D vision that will enable the CAD model to function as a visual front end for products offering access to information about how to build that product, how much the components cost, how it will perform in various environments and where to bury the thing when it dies.

The vision is coming closer to a reality in 2008. More companies are adopting 3D techniques. In the meantime, the established companies are selling drafting products in increased numbers to emerging technologies. These are all trends that are expected to increase even as western economies face economic challenges.

And there's the dark side. Because CAD is involved in every major industry in the world, it follows that economic slowdowns will affect the CAD industry directly. That has been true in the past and there's no reason to believe that it won't be true over the long term but for the immediate future, the CAD vendors are seeing solid growth.

In addition to the positive effect of globalization, add hardware advances that put 64-bit, multi-core computers into the mainstream. Most recently Autodesk announced support throughout its product line for 64-bit processors. Autodesk is behind the curve. The high end products from Dassault and Siemens UGS have gone to 64-bit years ago reflecting their customers' reliance on their products to create huge models. Siemens' SolidEdge made the transition in 2006 and so did SolidWorks.

Autodesk's relative slowness porting its products to 64-bit is probably not a huge problem for the company. The majority of Autodesk's design customers buy mainstream products or the entry level AutoCAD LT. They are more often working on smaller models and most are still working in 2D.

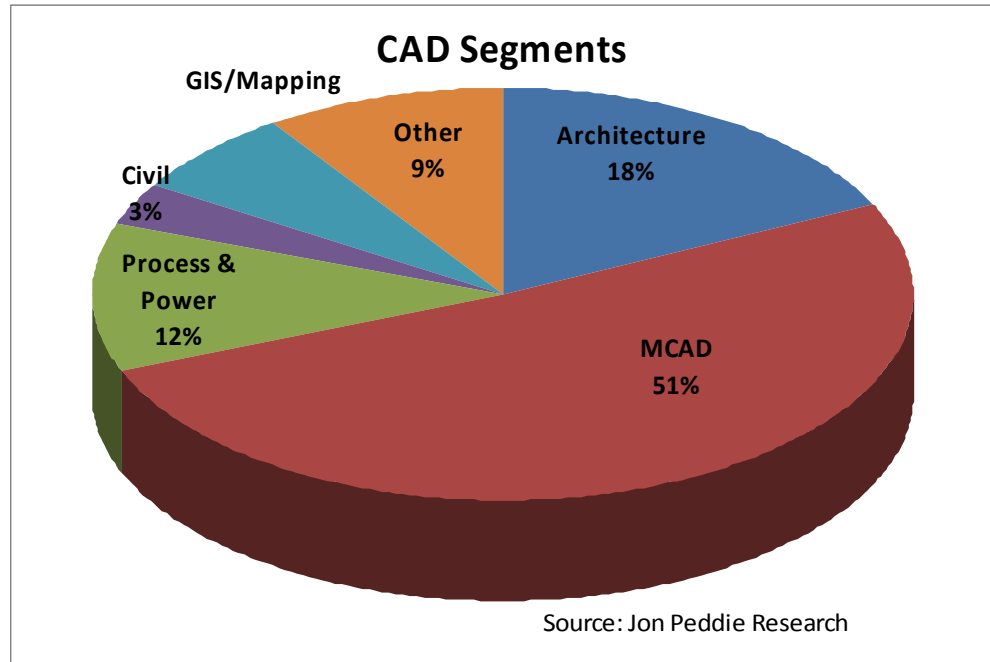


Figure 2: CAD tools are involved in just about every industry in the world. The CAD industry reached \$5.2 billion in 2007. The above chart shows the share of the different CAD segments. This is a fairly high level look since the segments are further fragmented in to specific industries

Looking at the overall transition to 64-bit technology, we can see that the computer industry made the transition in 2006 but the operating systems are only now accommodating 64-bit systems in the mainstream and entry level with the arrival of Vista and Leopard and in both cases there are still plenty of people still working on older systems with 32-bit operating systems and applications.

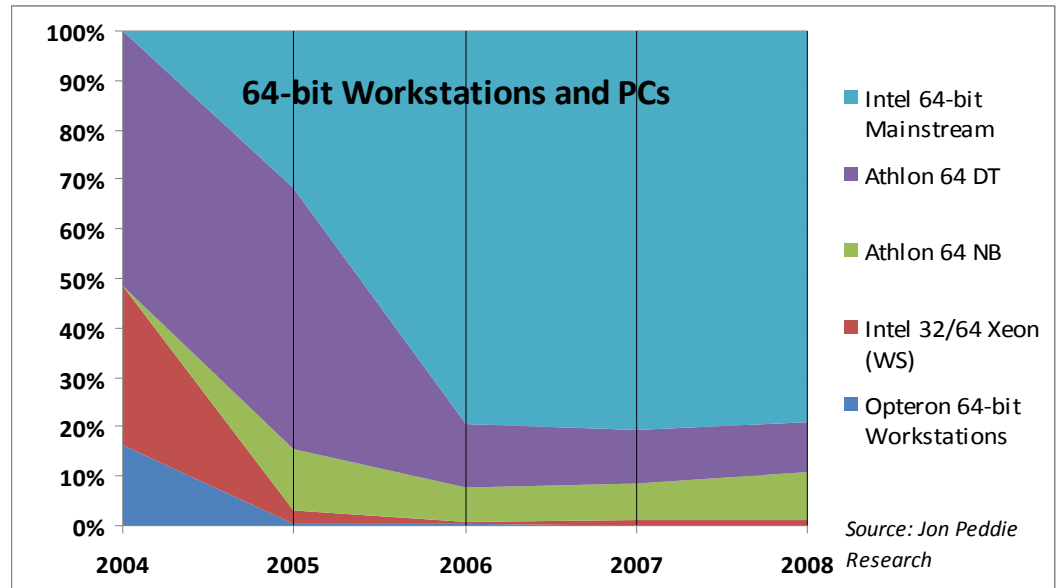
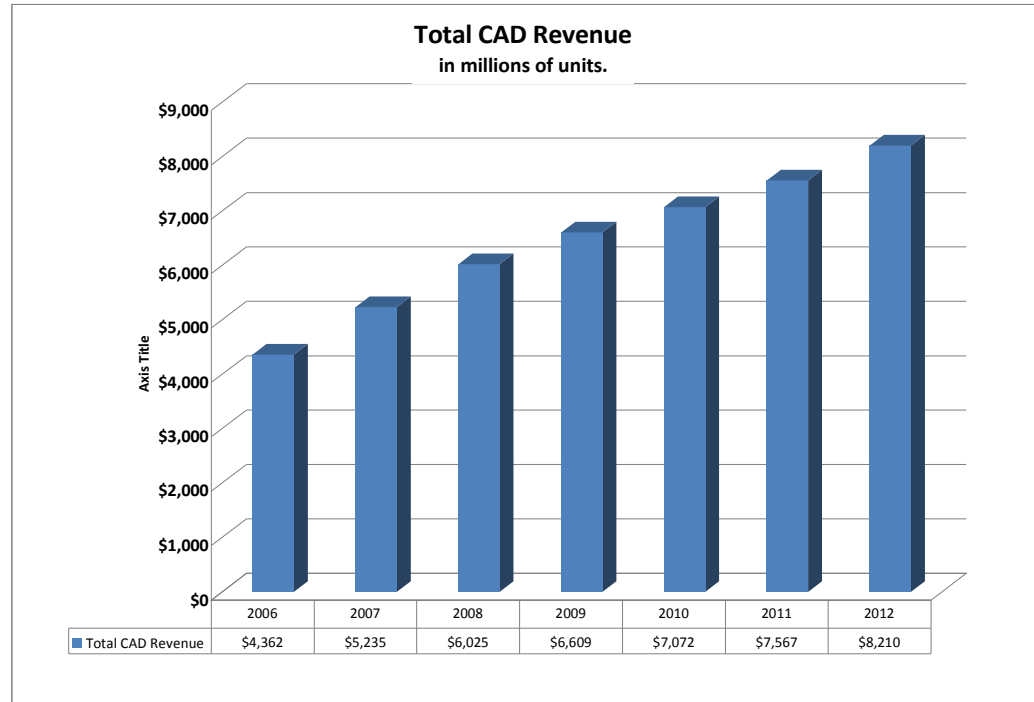


Figure 3: Computers have made the transition to 64-bit technology; however the operating systems supporting 64-bit processors are just now getting to the masses.

According to JPR's research, CAD software vendors saw combined revenues of \$5,234.95 million in 2007. The CAD software market increased an astounding 20% in 2007 compared to 2006 when revenues reached \$4,362.45 million. The trend will continue through 2008 in spite of challenges in the U.S. economy that could ripple through worldwide economies. Strong growth continues in the emerging economies that will than offset contractions in the west.

In 2008, the CAD market will grow to \$6,024.55 million, an increase of 15%. This is slightly down from our earlier prediction of 18% growth as we see some vendors facing decreased sales primarily in the architectural fields. In all, however, the CAD industry is growing and will continue to grow through 2012 with a CAGR of 11%.



In 2007 the worldwide installed base of CAD users reached 5.31 million, a 20% increase over 2006 when the number of CAD users was 4.42 million.

In 2007 the majority of CAD users, 63%, were still working in 2D, and 37% in 3D. However revenues for 3D CAD programs were higher. In all revenues for 3D CAD accounted for 53% of the market and 2D CAD accounted for 47% of the market. This highlights a shift as comparatively fewer users account for a larger share of the revenue. This trend will continue. 2D CAD programs are less expensive than 3D programs and we've been seeing the slow encroachment of 2D CAD programs offered for free by companies hoping woo 2D users to their 3D products.

The trend to 3D will continue but it's important to note that not all of the 2D CAD users are going to make the transition to 3D. In many cases, the transition means a change of job description. Sometimes, the growth of 3D CAD is happening as professionals add CAD to their portfolio of tools. However, those 2D CAD users who do make the transition to 3D can expect to see increased job prestige and increased income.



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iCAD is grateful to **Kathleen Maher** of Jon Peddie Research (www.johnpeddie.com) for supplying this article.

The 2008 CAD Report, published by Jon Peddie Research is a detailed report that looks specifically at the CAD market. It includes information on worldwide CAD software revenues, market share, and information about the user base. The market looks at the industry from the two major subsets of Mechanical/Manufacturing and AEC (Architecture, Electrical, and Construction).

The report also looks at major trends in the industry including the transition to advanced hardware, the approaches to multiCAD, and the addition of visualization to the repertoire of CAD companies' capabilities. For more information see http://www.jonpeddie.com/special/CAD_report.shtml

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