



**Commentary:**

## **MCAD Industry View – A March 2009 Update**

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***This March 2009 issue of the MCAD Industry Commentary recounts the financial performances of a selected group-of-six MCAD/PLM vendors for the nominal 2008 fourth quarter and for the 2008 year.***

*In the first MCAD Industry Commentary published [May 2003](#) in MCADCafé.com, then-recent yearly and quarterly financial performances of a selected group of public Mechanical Computer Aided Design (MCAD) companies were analyzed and compared. Expectations of future financial performances of these same MCAD entities were documented.*

*The May 2003 MCAD Commentary was followed by twenty-two quarterly updates in MCADCafé.com, one for each subsequent calendar quarter. URL's on all past articles are available. The entities covered were ANSYS, Autodesk, Dassault Systèmes, UGS PLM, ESI Group, Moldflow, MSC.Software ,PTC and Tecnomatix.*

*As a result of the acquisition of Tecnomatix by UGS that closed April 1, 2005, Tecnomatix was eliminated from coverage thereafter as a separate entity.*

*On May 7, 2007 UGS announced the close of its acquisition by Siemens AG effective May 4. Thereafter, the business went to market as UGS PLM Software, a global division of the Siemens Automation and Drives (A&D) Group. Over the years UGS has bounced back and forth between being a public company and a private company under different ownerships. Although not required to do so, UGS has frequently reported on its financial results even when privately held. For the first quarter of 2007 there was only this terse statement from Tony Affuso, chairman and CEO of UGS PLM Software, "We had a very strong quarter in Q1, coming in near 11 percent on total revenue growth and 16 percent on software license growth." This translates to about \$300 million. According to a company spokesperson at the time, UGS would no longer report results separately from Siemens, a very common practice with large corporations. In the first quarter of this year, the entire A&D Group generated €3.9 billion of the €20.2 billion total Siemens revenue. Regrettably, we can expect very little insight into UGS performance itself from public Siemens' reports going forward. The entity now goes to market as Siemens PLM Software.*

*On June 25, 2008 Autodesk completed its acquisition of Moldflow Corporation, so Moldflow was also eliminated here from separate coverage.*

***Accordingly, this twenty-fourth MCAD Industry article in the sequel recounts the financial performances of the remaining group-of-six (G6) MCAD/PLM entities for the nominal 2008 fourth quarter and the 2008 year. Stock performances and forecasts for Q1 2009 are also included, along with comments on the economy.***

**Recent MCAD & PLM News Highlights**

On February 19, 2009 **Dassault Systèmes** announced a new step forward in its strategic alliances, by taking a minority position in **Intercim LLC**. Dassault Systèmes' investment in Intercim, a partner since 2004, followed a June 2008 Memorandum of Understanding to provide the aerospace and defense industry with Intercim's manufacturing operations management solution integrated with Dassault Systèmes' V6 platform. Intercim offers manufacturing and production operations management software solutions for advanced and highly-regulated industries.

On December 17, 2008 **Autodesk** announced that it had signed a definitive agreement to acquire **ALGOR, Inc.**, a leading provider of analysis and simulation software, for approximately \$34 million.

On December 10, 2008 **PTC** announced it had acquired the business assets of **Synapsis Technology, Inc.**, based in Spring House, Pa. Synapsis provided environmental regulatory compliance solutions to leading customers. The company was privately held and had approximately 25 employees. Financial terms of the acquisition were not disclosed.

On December 01, 2008 **ESI Group** announced the acquisition of **Vdot**, a US software platform focused on development process management.

#### **MCAD Vendors' Financial Performances in Q4 2008**

As a group, the G6 MCAD vendors generated combined Q4 2008 **revenues** of \$1.45 billion, a decrease of 7.3% from the \$1.57 billion in the fourth quarter of 2007 and a decrease of 8.5% from the \$1.59 billion in the third quarter of 2008.

ANSYS was the only firm to show year-over-year growth, due in part to its acquisition of Ansoft last July. See **Table 1**.

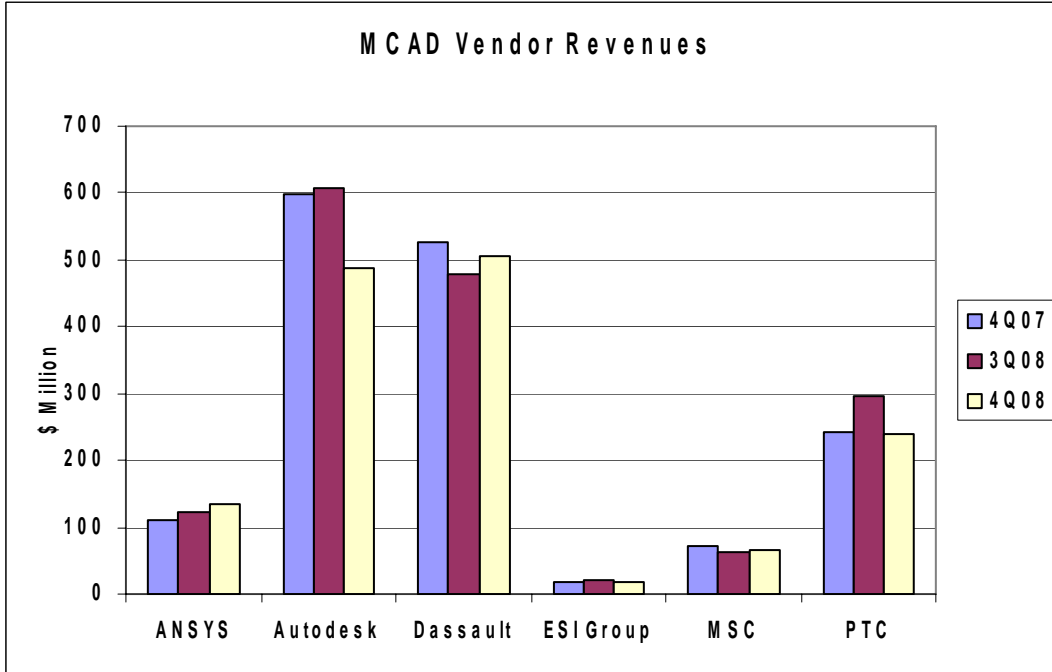
Autodesk suffered the steepest year-over-year percentage revenue decline at minus 18.4%. MSC.Software was next with a drop of 8.5%. The other firms reported low single digit dips when measured in US dollars.

On a sequential basis Autodesk, PTC and ESI Group were nestled around a revenue drop of 19%, while ANSYS posted a percentage revenue gain of nearly 11%. Dassault and MSC.Software also posted small quarter-over-quarter gains.

<b>Company</b>	<b>Last QTR Revenue</b>	<b>Prev QTR Revenue</b>	<b>Last vs. Prev QTR</b>	<b>Comparable 2007 QTR</b>	<b>Last QTR vs. Comparable QTR</b>
ANSYS	135	122	10.7%	111	21.6%
Autodesk	489	607	-19.4%	599	-18.4%
Dassault (€)	383	318	20.3%	363	5.5%
Dassault (\$)	505	477	5.9%	526	-4.0%
ESI Group (€)	13.4	14.6	-8.2%	12.9	3.9%
ESI Group (\$)	17.7	21.9	-19.2%	18.7	-5.4%
MSC.Software	65	64	2.0%	71	-8.5%
PTC	240	296	-18.8%	241	-0.4%
<b>Total</b>	<b>1,453</b>	<b>1,588</b>	<b>-8.5%</b>	<b>1,568</b>	<b>-7.3%</b>

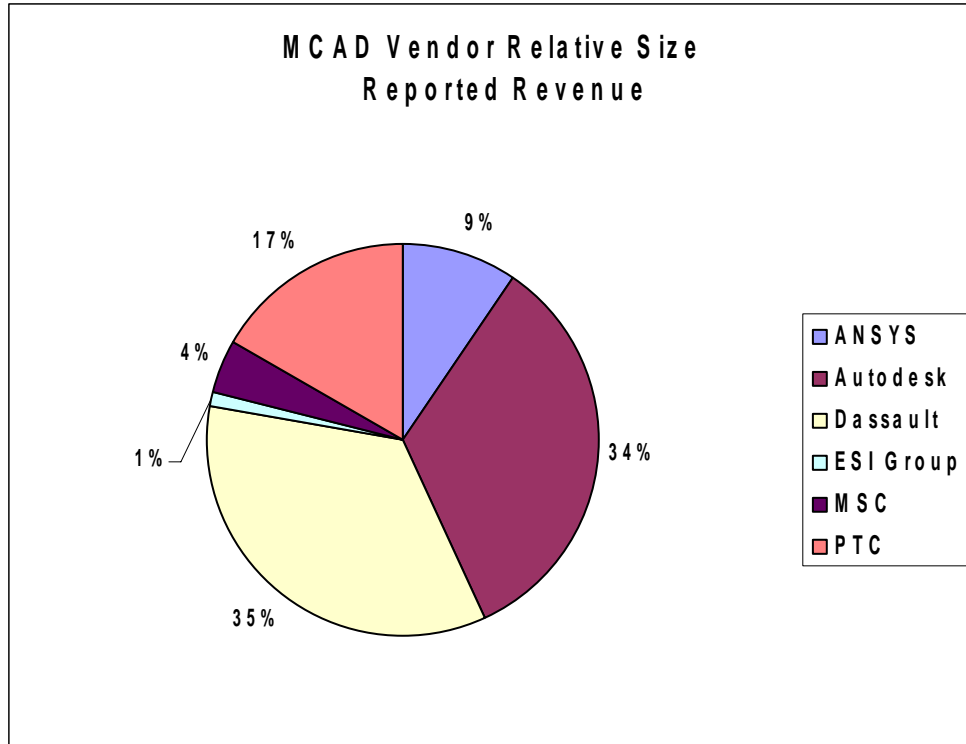
**Table 1 - Quarterly Revenues of G6 MCAD Vendors (US\$ millions)**

**Figure 1** below provides a bar graph showing the revenue trend for each of the covered vendors, for the periods mentioned in **Table 1**.



**Figure 1 - Quarterly Revenues of the G6 MCAD Vendors (US \$ Millions)**

For the fourth quarter of 2008, Dassault Systemes achieved the largest relative market share at 35%, Autodesk was a very close second at 34% and PTC was a distant third at 17%. Note that the Autodesk figure contains considerable revenue from outside the MCAD arena in AEC and Media/Entertainment. All three of the leaders have some form of third party distribution. **See Figure 2.**



**Figure 2 - Relative Sizes by "Q4 2008" Reported Revenue**

**Table 2** reveals that the combined Q4 **earnings** of the G6 MCAD vendors was as mere \$3 million, dominated by Autodesk posting the largest loss of minus \$105 million. This loss compares to net Autodesk gains of \$96 million in the year ago quarter and of \$104 million in the third quarter of 2008.. MSC.Software also posted a significant Q4 2008 loss at minus \$22 million. ANSYS was the only firm to post a year-over-year gain at plus 9%. Dassault's earnings were down 15% year-over-year but up 45% sequentially.

Company	Last QTR Earning	Last QTR Earning	Last vs. Prev QTR	Comparable 2007 QTR	Last QTR vs. Comparable QTR
ANSYS	31.9	25.8	6.1	29.3	2.6
Autodesk	(105)	104.5	(209.8)	96.5	(201.8)
Dassault (€)	71.6	43.3	28.3	76.6	(5)
Dassault (\$)	94.5	65.0	29.6	111.1	(16.6)
ESI Group (€)	N/A	N/A	N/A	N/A	N/A
ESI Group (\$)	N/A	N/A	N/A	N/A	N/A
MSC.Software	(22.5)	2.3	(24.8)	2.3	(24.7)
PTC	4.7	36.5	(31.8)	9.9	(5.2)
<b>Total</b>	<b>3</b>	<b>234</b>	<b>(231)</b>	<b>249</b>	<b>(246)</b>

**Table 2 - Quarterly earnings of G6 MCAD Vendors (US\$ Millions)**

**Details on Individual Vendors' Q4 2008 Performances**



On February 26, 2009 **ANSYS Inc.** reported its fiscal fourth quarter and full year 2008 results. Total revenue for the quarter was \$135 million, an increase of 21.6% from the \$111 million in the fourth quarter a year ago and an increase of 10.7% from the \$122 million in the previous quarter. Software license revenue was \$90 million, an increase of almost 20% year-over-year and an increase of nearly 13% sequentially. Maintenance and Services revenue was \$44.9 million, accounting for 33% of total revenue. This was an increase of 26% from the fourth quarter last year and an increase of 7% from the prior quarter.

At the end of July 2008, ANSYS announced that it completed the acquisition of Ansoft Corporation in a series of mergers for approximately 12.2 million shares of ANSYS common stock, including 1.9 million shares pursuant to assumed stock options, and approximately \$387 million in cash, plus expenses. In the first quarter of 2008, Ansoft had revenue of \$33 million.

Net income for the quarter was \$31.9 million, an increase of 9% from the \$29.3 million in the same quarter a year earlier, and increase of 24% from the \$25.8 million in the third quarter.

ANSYS President & CEO Jim Cashman commented, *"By staying true to our strategic vision, we validated that the fundamentals of the ANSYS business remain strong, even in the midst of the macro challenges. Our customers' ability to innovate is essential to their future success, which in turn furthers the success of ANSYS. As a result, we continue to have a strong financial model that can drive profitable operations while ANSYS delivers on its promise to provide best in class engineering simulation."*



On January 15, 2009 **Autodesk, Inc** announced a restructuring plan to reduce its annual operating expenses. The company anticipates the restructuring will result in annual pre-tax cost savings of approximately \$130 million annually, starting in fiscal 2010.

As part of its restructuring plan, Autodesk plans to reduce its workforce by approximately 750 employees, representing approximately 10% of the company's global workforce. The company also plans to consolidate certain facilities. As a result of this restructuring, the company anticipates taking a pre-tax charge in the range of \$65 million to \$75 million. Approximately \$45 million to \$50 million in pre-tax charges will be taken in the fourth quarter of fiscal 2009. Most of the remaining charge will be taken in the first quarter of fiscal 2010.

On February 26, 2009 **Autodesk, Inc.** reported financial results for the fourth quarter and the year for fiscal 2009. Total revenue for the quarter was \$489 million, a drop of over 18% from the \$599 million in the fourth quarter last year and a drop

of over 19% from \$607 million in the third quarter. License revenue was \$310 million or 63% of total revenue. This represented a decrease of 30% year-over-year and a decrease of 26% sequentially. Maintenance revenue was \$179 million or 37% of total revenue. This was an increase of 17% from the fourth quarter of last year but a dip of 3.8% from the third quart of this year.

The Platform segment, which accounts for about 41% of total revenue, includes AutoCAD and AutoCAD LT products that service multiple markets. Platform revenue was down 24% from the year ago quarter and down 25% from the prior quarter. Other segments are AEC (previously two segments: Building and Infrastructure) and Media/Entertainment (previously named Discreet). The Manufacturing segment (which includes the Inventor product lines) accounted for 23% of total revenue and dropped 7.3% year-over-year and dropped 8.1% from the prior quarter. A "guesstimate" of MCAD revenue for the quarter would be about \$215 million for the quarter.

Segments \$M	4Q08	3Q08	Delta	4Q07	Delta
Manufacturing	114	124	-8.1%	123	-7.3%
Platform	201	269	-25.3%	263	-23.6%

**Table 3 Autodesk Revenue by Segment**

Design segment revenues of \$433 million decreased just over 17% when compared to the \$523 million in the fourth quarter of fiscal 2008. This accounted for 87% of total revenue. Design revenue fell nearly 18% sequentially. Combined revenue from model-based 3D design solutions, including Inventor, Revit, Civil 3D, Moldflow, NavisWorks, and Robobat, decreased 1 percent over the fourth quarter of last year to \$144 million and comprised 29% of total revenue for the quarter. Autodesk shipped approximately 30,000 new commercial seats of its model-based 3D design products including approximately 6,100 seats of 3D manufacturing products, and 24,000 seats of its 3D Architecture Engineering and Construction products.- Revit, Civil 3D, NavisWorks, and Robobat.

The Americas accounted for 35% of total revenue, Europe for 45% and Asia Pacific for 20%. EMEA revenue was \$219 million, a decrease of 16% as reported over the fourth quarter of fiscal 2008, and a decrease of 8% on a constant currency basis. Revenue in Asia Pacific was \$99 million, a decrease of 25% as reported year-over-year, and a 28% decrease on a constant currency basis. Revenue in the Americas decreased 17% to \$172 million compared to the fourth quarter of fiscal 2008. Revenue from emerging economies decreased 31% compared to the fourth quarter of fiscal 2008 to \$80 million and represented 16% of total revenue.

Upgrade revenue and maintenance revenue combined increased 4.9% over the fourth quarter of fiscal 2008 to \$213 million. Total upgrade revenue decreased 32% compared to the fourth quarter of fiscal 2008. Maintenance revenue increased 17% compared to the same quarter in fiscal 2008 to \$179 million, or 36% of total revenue.

Net loss for the quarter was \$105 million, compared to net gains of \$97 million in the same quarter last year and \$105 million in the prior quarter. In the quarter Autodesk took an impairment charge of \$129 million to reduce the value of goodwill related to the company's Media and Entertainment business segment.

Carl Bass, Autodesk president and CEO, said, "We have much to be proud of in fiscal 2009, including achieving record annual revenue results, expanding our market presence into new territories, and adding several new and exciting technologies to our portfolio of world-class products. While the global economic conditions in the first and second half of fiscal 2009 were very divergent, we are taking actions to reduce our cost structure to better fit the realities of today's economic conditions. Our strong market position and best-in-class products give us confidence that Autodesk will emerge from this downturn better positioned and more operationally efficient."



On February 11, 2008 **Dassault Systemes** reported financial results for the fourth quarter and the year ended December 31, 2008. Total revenue for the quarter was \$505 million, a drop of 4% from the \$526 million in the fourth quarter of 2007 but an increase of nearly 6% from the \$477 in the third quarter of 2008. Software revenue was \$437 million, accounting for 86% of total revenue. This was a dip of 2.3% from the year ago quarter, but an increase of 5.3% from the preceding quarter. New license revenue of \$152 million generated 35% of software revenue, while recurring revenue of \$285 million was 65% of software revenue.

Dassault Systemes, a French company, reports its financial results in euros but provides average conversion factors to dollars for each quarter and year. These factors were used to calculate US dollar numbers. Revenue growth for the quarter in terms of constant currency GAAP was down 1%, yet up 9% for the year.

Revenue from North America at \$157 million accounted for 31% of total revenue. This was an increase of over 2.1% year-over-year and an increase of 3.2% sequentially. Revenue from Europe was \$235 million, accounting for 47% of total revenue. This was a decrease of 10.5% year-over-year, but an increase of 7.4% sequentially. Revenue from Asia was \$113 million, accounting for 22% of total revenue. This was an increase of 3.1% year-over-year, and an increase of 6.5% from the prior quarter.

The Enovia brand which includes Enovia, MatrixOne and SmarTeam generated \$71 million in the quarter, or almost 14% of total revenue. This was a 3.2% decrease year-over-year, but a increase of 7.5% sequentially. Note that MatrixOne was acquired in May 2006 for \$410 million. Dassault has now combined SolidWorks and CosmosWorks into Mainstream 3D. This category generated \$99 million, accounting for 20% of total revenue. This represented an increase of 1.9% year-over-year, but a decrease of 2.4% sequentially. CAD generated \$199 million, or 39% of total revenue. This was down 5.5% year-over-year, but was up 8.3% sequentially.

\$M	4Q08	3Q08	Delta	4Q07	Delta
Enovia	71	66	7.5%	73	-3.2%
CAD	199	184	8.3%	211	-5.5%
Other	68	64	6.6%	66	2.6%
PLM	338	313	7.8%	350	-3.5%
Mainstream 3D	99	101	-2.4%	97	1.9%

Services	69	63	9.7%	79	-13.5%
<b>Total</b>	<b>505</b>	<b>477</b>	<b>5.9%</b>	<b>526</b>	<b>-4.0%</b>

**Table 4 Dassault Systemes Revenue by Product Area**

Net income for the quarter was \$95 million, a decline of 15% from the \$111 million in the same quarter a year earlier but up 45.5% from the \$65 million in the prior quarter.

Bernard Charlès, Dassault Systèmes President and Chief Executive Officer, commented, *"Looking back at 2008, despite a disappointing fourth quarter caused by the economic crisis, Dassault Systèmes ended the fiscal year with growth in revenue and earnings, a high level of recurring software revenue and a strong balance sheet. Thanks to our strategic investments in our product portfolio and sales channels, DS gained one point of market share in 2008."*



On December 11, 2008 **ESI Group** announced its consolidated sales for the third quarter ended October 31, 2008. Total revenue for the quarter was \$17.7 million, a drop of 5.4% from the \$18.7 million in the same quarter a year ago and a decrease of 19% from the \$22 million in the second quarter. License revenue was \$12 million or 68% of the total, a decrease of 10% year-over-year and a drop of 24% from the \$15.8 million in the previous quarter. Service and other revenue was \$5.7 million accounting for 32% of total revenue. This was an increase of 5.8% from the same quarter a year ago but a drop of 7.7% from the previous quarter.

On December 1, 2008, the company announced the acquisition of **Vdot**, a US software platform focused on development process management. Vdot adds an essential component to ESI Group's VisualDSS product, ensuring the synchronization and real-time updating of actions taken by each participant in a project, and allows rapid and reliable decision-making as part of the PLM process. The terms of the deal take into account the current uncertainties about the global economy, and do not damage the Group's financial position.

On January 12 2009, the ESI Group announced the acquisition of **Mindware Engineering Inc.** (Mindware), a software Services provider headquartered in the United States. Mindware, mostly recognized in engineering services encompassing Computational Fluid Dynamics (CFD), is also said to be versed in Fluid/Structure interaction and engineering data management. Mindware has customers in Automotive, Aerospace and Defense companies, providing digital simulation based solutions driving product design and development. Mindware has operations in three continents with its main activity in the United States and support offices in the European Union and India.

Alain de Rouvray, Chairman and Chief Executive Officer of ESI Group, made the following comments: *"Although the third quarter of the year is traditionally not a critical one given the seasonal variations in our business, our sales figures confirm*



*the trend seen in the last two years, i.e. the increasing contribution of high-value-added Services to our overall sales. These Services encourage the use of our solutions, and assist customers in implementing them. Although there has been major disruption to the global economy, our main customers – including carmakers – have shown a high level of confidence in our Virtual Prototyping solutions, which deliver major benefits in terms of productivity and competitiveness.*



On February 26, 2008 **MSC Software Corporation** reported results for the fourth quarter and the year ended December 31, 2008. Total revenue in the quarter was \$65 million, a decrease of 8.6% from the \$71 million in the fourth quarter of last year, but an increase of 2% from the \$63.7 million in the third quarter. Software revenue was only \$24.7 million, or 38% of total revenue. This was a decrease of 14.3% year-over-year, but an increase of 14.7% sequentially. Maintenance revenue was \$33.3 million, or 51% of total revenue. This figure was flat compared to last year's quarter but down 3.5% from the previous quarter. Services revenue was \$6.9 million, accounting for nearly 11% of total revenue. This number was down 23% from the same quarter a year earlier and up 2% from the prior quarter.

Revenue from the Americas accounted for 33%, revenue from EMEA for 35% and revenue from AP for 32%.

<b>Geography</b>	<b>4Q08</b>	<b>3Q08</b>	<b>Delta</b>	<b>4Q07</b>	<b>Delta</b>
Americas	21.3	20.3	4.9%	22	-3.2%
EMEA	22.8	25.3	-9.9%	30	-24.0%
AP	20.9	18.1	15.5%	19.1	9.4%
<b>Total</b>	<b>65</b>	<b>63.7</b>	<b>2.0%</b>	<b>71.1</b>	<b>-8.6%</b>

**Table 5 MSC Software by Geographic Region**

Net loss for the quarter was \$22.5 million compared to net gains of \$2.3 million in both the year ago quarter and in the previous quarter. This loss includes restructuring charges of \$3.3 million and impairment charges related to intangible assets of \$10.0 million. There was also a net tax charge of \$17.3 million, resulting primarily from establishing a valuation allowance totaling \$22.9 million.

Bill Weyand, CEO and Chairman of MSC Software, said, "*Although 2008 presented its challenges to MSC as we continued our strategic product transition, our simulation software solutions continue to be strategic components of our customers' product development processes. With a strong balance sheet and a focus on cost control we are able to weather the current uncertain and volatile economic environment.*"



On January 27, 2009 **PTC** reported financial results for its first fiscal quarter of 2009. Total revenue for the quarter was \$240 million, a decrease of 0.4% from the \$241 million in the first fiscal quarter of 2008, and an almost 19% drop from the just preceding quarter. License revenue was \$51 million or 21% of total revenue, a drop of 29% from the same quarter a year ago and a drop of 49% sequentially. Maintenance revenue was \$131 million accounting for over 54% of total revenue. This was an increase of 14% year-over-year but flat compared to the last quarter. Services revenue was \$59 million or 25% of total revenue, a rise of 6.4% from the same quarter a year earlier and a drop of almost 12% from the prior quarter.

On December 10, 2008 PTC announced it had acquired the business assets of Synapsis Technology, Inc., based in Spring House, Pa. Synapsis provided environmental regulatory compliance solutions. The company was privately held and has approximately 25 employees. Financial terms of the acquisition were not disclosed. With this acquisition PTC will broaden its support for green product design and enable customers to achieve compliance with REACH and other environmental regulations.

Beginning in FY2009, PTC is reclassifying its computer-based training product related sales previously recorded as Services revenue to License and Maintenance revenue to better align with how these training products are sold to customers. This will not affect total revenue, operating margin or net income. However, the reclassification will result in a shift of approximately \$20 million of revenue annually from Services to License and Maintenance (primarily License).

On a geographic basis North America accounted for 35% of total revenue, Europe for 41% and Asia Pacific for 24%.

<b>Geography</b>	<b>4Q08</b>	<b>3Q08</b>	<b>Delta</b>	<b>4Q07</b>	<b>Delta</b>
NA	84	102	-18.1%	85	-1.2%
Europe	99	131	-24.0%	102	-2.2%
AP	57	67	-14.1%	55	4.4%
<b>Total</b>	<b>240</b>	<b>300</b>	<b>-19.7%</b>	<b>241</b>	<b>-0.4%</b>

**Table 6 PTC Revenue by Geographic Region**

The reseller channel generated \$65 million in revenue, for 27% of total revenue. This was up 10.4% year-over-year but down 14% sequentially. Revenue from the direct channel was \$176 million or 73% of total revenue. This was down 3.8% year-over-year and down 22% sequentially. There are more than 410 channel partners supported by 125 channel business development managers, including about 35 from CoCreate. On the direct side PTC has 355 sales reps as of the end of the quarter.

In the quarter PTC had 9 large deals totaling \$24 million. 4 of these customers were in North America, 4 in Europe and 1 in Asia. This compares to 12 large deals in Q1 2008 totaling \$32 million. One of the deals in Q1 2009 was almost \$10 million. Excluding that large deal in Q1 2009, the average deal size was \$1.8 million compared to an average deal size of \$2.5 million in FY 2008.

Net income for the quarter was \$4.7 million, a 53% decline from the \$9.9 million in the year ago quarter and a drop of 57% from the \$36.5 million in the last quarter.

Total headcount was 5,264 at the end of Q1 2009, up 177 employees (including approximately 20 from the Synapsis acquisition) from 5,087 at the end of Q4 2008. Given the hiring freeze and restructuring plan, PTC intends to end FY 2009 with approximately 5,000 employees.

C. Richard Harrison, president and chief executive officer, commented, "*We delivered \$240 million of revenue in Q1 compared to \$241 million in the year ago period. This performance reflects a \$20 million, or 29%, decrease in license revenue compared to Q1'08 inclusive of a \$2 million unfavorable currency impact. Our total revenue was up 2% on a constant currency basis, reflecting the growth of our maintenance and services businesses as well as 2 months of additional revenue contribution from CoCreate, which we acquired on November 30, 2007. On an organic constant currency basis, our total revenue was down 3%, or approximately \$8 million, compared to last year.*"

### MCAD Vendor Performance for the Calendar 2008 Year

PTC and ESI Group have fiscal years other than the calendar year. So **Table 7** below represents the last four quarters and the four quarters the year before. We use an average number to convert euros (Dassault and ESI Group report in euros) to US dollars.

The **combined 2008 revenue** of the covered MCAD vendors was \$6.18 billion, a 10.8% rise from the \$5.58 billion in the preceding year 2007, with all vendors in the list managing to grow. ANSYS enjoyed the best year-over-year revenue percentage performance at plus 24%. Dassault Systemes, PTC and ESI Group each delivered double digit percentage increases in revenue, while Autodesk, PTC and MSC.Software managed only single digit revenue growth.

Company	2008	2007	Delta
ANSYS	478	385	24.1%
Autodesk	2,315	2,171	6.6%
Dassault (€)	1,335	1,259	6.0%
Dassault (\$)	1,962	1,725	13.8%
ESI Group (€)	72	68	6.2%
ESI Group (\$)	105	92	14.1%
MSC.Software	254	247	3.1%
PTC	1,069	961	11.3%
<b>Total</b>	<b>6,184</b>	<b>5,581</b>	<b>10.8%</b>

**Table 7 MCAD Vendor Revenue Performance Calendar 2008 (\$ millions)**

However, **Table 8** shows that the **combined earnings** of the same MCAD vendors for calendar 2008 were only \$640 million, down \$180 million or minus 22% from the \$820 million in the prior year, in part reflecting the impact of the worldwide economic slowdown in 2008. While only MSC.Software actually lost money for the year, both Autodesk and PTC endured earnings declines approaching 50% on far larger bases. ANSYS earnings rose 35%, while Dassault's net income rose 19%.

Company	08 Earnings	07 Earnings	Delta
ANSYS	112	82	29
Autodesk	184	356	(173)
Dassault (€)	198	179	20
Dassault (\$)	291	245	47
ESI Group (€)	NA	NA	
ESI Group (\$)	NA	NA	
MSC.Software	(21)	(2)	(20)
PTC	74	138	(64)
<b>Total</b>	<b>640</b>	<b>820</b>	<b>(180)</b>

Table 8 MCAD Vendor Earnings Performance Calendar 2008(\$ millions)

### Calendar 2008 Performance of Individual MCAD Vendors

For the year **ANSYS** reported total revenue of \$478 million, an increase of 24% from the \$385 million in the prior year. Software license revenue was \$318 million, or 66.5% of total revenue, representing an increase of 25.6%. Maintenance and services revenue was \$160 million, or 33.5% of total revenue, an increase of 21% year-over-year.

Net income for the year was \$111 million, up 35% from the \$82 million in the previous year.

*For the year **Autodesk** reported total revenue of \$2.315 billion, a 6.6% increase relative to the \$2.171 billion in the prior fiscal year. License revenue was \$1.6 billion, or 69% of total revenue, representing a dip of almost 1% year-over-year. Maintenance revenue was \$711 million, or 31% of total revenue, an increase of almost 29% from the prior year.*

*The Americas accounted for 34% of total revenue, Europe for 43% and Asia Pacific for 23%. Revenue from the Americas was down 2.7%, revenue from Europe was up 14.5% and revenue from the AP was up 7.5%*

*The Platform segment, which accounts for about 44% of total revenue, includes AutoCAD and AutoCAD LT products that service multiple markets. Other segments are AEC (previously two segments: Building and Infrastructure) and Media/Entertainment (previously named Discreet). The Manufacturing segment (which includes the Inventor product lines) accounted for 21% of total revenue and was up almost 17% from the prior year.*

Segments \$M	2008	2007	Delta
Manufacturing	488	418	16.7%
Platform	1,018	997	2.1%

Table 9 Autodesk Revenue by Segment

*AutoCad and AutoCad LT products accounted for 36% of total revenue. This amount was up 1% year-over-year. Combined revenue from model-based 3D design solutions was \$625 million, accounting for 27% of total revenue, an increase of 25%.*

Net income for the year was \$184 million, far below net income of \$356 million in the previous fiscal year. The current year includes a \$129 million write-down of goodwill and intangibles from the media segment.

For the year 2008 **Dassault Systemes** (DS) enjoyed total revenue of \$1.96 billion, up almost 14% from the \$1.725 billion in 2007. Software revenue was \$1.7 billion, 86% of total revenue, up 16.5% from the \$1.457 billion in 2007. New license revenue of \$599 million, 35% of total revenue, was up 4.8%. Recurring software revenue was \$1.1 billion, up 24% from the prior year.

North American revenue of \$603 million accounted for 31% of total revenue and was up over 12%. European revenue of \$912 million or 46.5% of total revenue was up 15.5%. Asian revenue was \$448, an increase of over 12% from the prior year.

PLM revenue was \$1.291 billion, a 16.2% increase from the \$1.11 billion in 2007. Revenue from CAD accounted for 39% of PLM revenue and was up 17%. Revenue from Enovia was \$263 million accounting for 20% of total revenue. This segment was up almost 15%. Mainstream 3D revenue was 21% of total revenue, a year-over-year increase of 17.5%. Services revenue was down 1% from the previous year. See **Table 10**.

<b>\$M</b>	<b>2008</b>	<b>2007</b>	<b>Delta</b>
Enovia	263	229	14.9%
CAD	768	655	17.1%
Other	261	227	14.8%
PLM	1291	1111	16.2%
Mainstream 3D	406	346	17.5%
Services	265	268	-1.0%
<b>Total</b>	<b>1962</b>	<b>1725</b>	<b>13.8%</b>

**Table 10 Dassault Systemes Annual Revenue by Product Segment**

Note: Dassault Systemes is claiming 26% market share with Siemens PLM Software second at a little better than half of Dassault's market share at 14%.

Net DS income for 2008 was \$198 million, almost an 11% increase from the \$179 million in 2007. During 2008 DS paid cash dividends amounting to €53.7 million in total. The Company also repurchased 2,261,986 shares during 2008 for an aggregate investment of €79.0 million.

On October 16, 2008, Dassault Systèmes' voluntary delisting from Nasdaq was completed. On January 15, 2009, Dassault Systèmes' deregistration and termination of its reporting obligations under the US SEC Exchange Act became effective. The Company does not plan to publish a Form 20-F for the fiscal year ended December 31, 2008; however, it will be providing an English translation of its 2008 *Document de référence*, when filed with the French "Autorité des marchés financiers".

Thibault de Tersant, Senior Executive Vice President and CFO, commented, "At the end of the third quarter we were well on track to achieve our revenue and margin objectives for 2008, but we finally came in below them for the full year due to the significant slowdown in the macroeconomic environment which impacted us at the

end of the fourth quarter. Nonetheless, thanks to our recurring software revenue and services and other revenue, which in combination represented about 69% of our total revenue in 2008, we were able to deliver over 8% growth in total revenue on a constant currency basis for the full year.”

For calendar 2008 **MSC.Software** managed to deliver total revenue of \$254 million, a tiny 3% increase from the \$247 million in 2007. Software revenue was \$89.2 million, accounting for 35% of total revenue. This figure was down 5.7% year-over-year. Maintenance revenue was \$137 million, or 54% of total revenue. Maintenance revenue was up 9.1%. Service revenue was \$28 million, up 6.4%.

The Americas generated 32% of total revenue, EMEA 38% and Asia Pacific 30%.

<b>Geography</b>	<b>2008</b>	<b>2007</b>	<b>Delta</b>
Americas	80.3	75.3	6.6%
EMEA	96.4	95.9	0.5%
AP	77.7	75.5	2.9%
<b>Total</b>	<b>254.4</b>	<b>246.7</b>	<b>3.1%</b>

**Table 11 MSC.Software Revenue by Geographic Sector (\$ millions)**

Net MSC loss for the year was \$21.3 million, compared to a net loss of \$1.6 million in the previous calendar year. This loss includes restructuring charges of \$3.3 million and impairment charges related to intangible assets of \$10.0 million. There was also a net tax charge of \$17.3 million, resulting primarily from establishing a valuation allowance totaling \$22.9 million.

For calendar 2008 **PTC** reported total revenue of \$1,069 million, an increase of 11.3% from the \$961 million in calendar 2007. However, net income for the year was \$74 million, down 46% from the \$138 million in calendar 2007.

## **Five Year Revenue Performance**

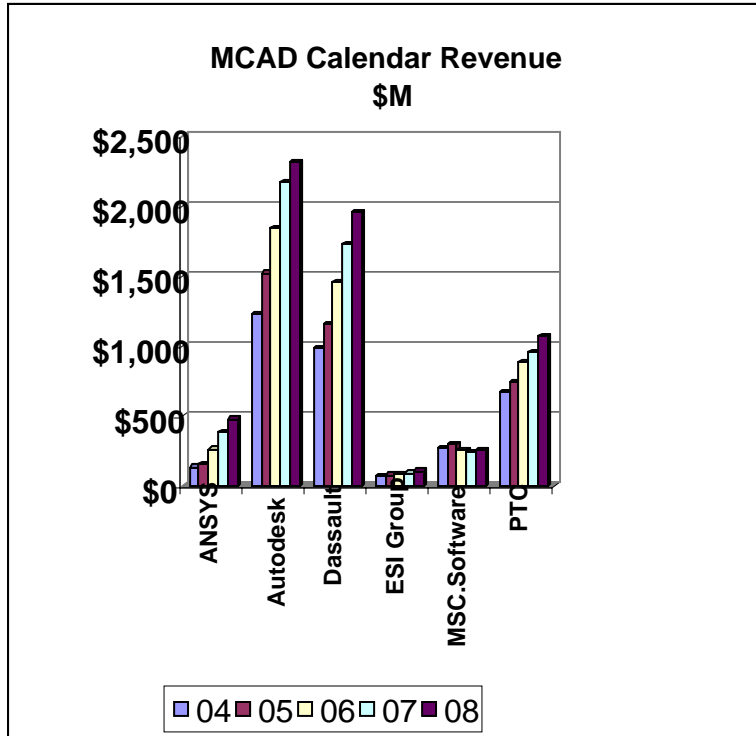


Figure 3 MCAD Revenue Five Years (\$ millions)

The annual revenue for each of the covered MCAD vendors over the last 5 years is shown in **Figure 3** above. The table below provides the annual sums of the same vendors. **The approximate compound average growth rate (CAGR) is a not-unimpressive +20%**. All of this revenue growth is not purely organic, of course. There have been several major acquisitions (e.g. Autodesk – Algor; ANSYS – Ansoft; PTC – CoCreate; MSC.Software – The MacNeal Group; Dassault Systemes - MatrixOne) and many small ones during this time period.

	04	05	06	07	08
Revenue	3,366	3,956	4,786	5,581	6,184

Covered MCAD Vendors Combined Revenue 5 Years (\$ millions)

#### MCAD Vendor Stock Performances in Q4 2008

During Q4 2008 the combined stock prices of the covered MCAD vendors fell in *absolute terms* nearly 38% year-over-year and just over 27% sequentially. On *average terms*, the stock prices fell 33% year-over-year and 25.6% relative to the just prior quarter.

Year-over-year, Autodesk's stock price tumbled the most at minus 60% with MSC.Software the next poorest at almost minus 49%. PTC and ANSYS fell around 30%. Dassault Systemes has the best performance among decliners at -22%.

On a sequential basis, Autodesk was again the largest decliner at minus 41% with MSC.Software again in second place at minus 37.6%. PTC fell over 30% and ANSYS fell 26%. Dassault has the least decline at minus 15%.

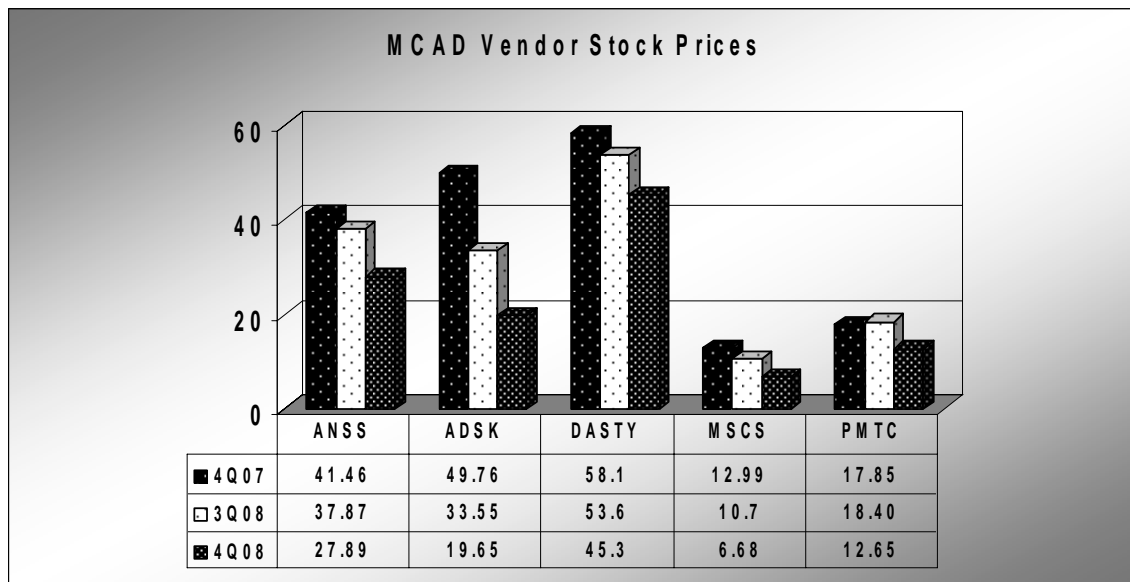
Symbol	4Q07	3Q08	4Q08	QoQ	YoY
ANSS	41.46	37.87	27.89	-26.4%	-32.7%
ADSK	49.76	33.55	19.65	-41.4%	-60.5%
DASTY	58.1	53.6	45.3	-15.5%	-22.0%
MSCS	12.99	10.7	6.68	-37.6%	-48.6%
PMTC	17.85	18.40	12.65	-31.3%	-29.1%
<b>Total</b>	<b>180.16</b>	<b>154.12</b>	<b>112.17</b>	<b>-27.2%</b>	<b>-37.7%</b>
			<b>Avg Delta</b>	<b>-25.6%</b>	<b>-33.0%</b>

**Table 12 Stock Prices of MCAD Vendors (\$)**  
**(ANSS split 2:1 in June 2007)**  
**(Note: Siemens PLM Software is no longer publicly traded)**

**Tables 12 and 13** reveal that the average MCAD stock performance (minus 33%) compares slightly favorably to a year-over-year decline of 37% for the average of the major indexes, but compares somewhat unfavorably at minus 26% to a major indexes decline of 22% versus the previous quarter.

Symbol	4Q07	3Q08	4Q08	QoQ	YoY
DJI	13,264	10,851	8,776	-19.1%	-33.8%
Nasdaq	2,652	2,092	1,577	-24.6%	-40.5%
S&P	1,468	1,165	903	-22.5%	-38.5%
			<b>Ave Delta</b>	<b>-22.1%</b>	<b>-37.6%</b>

**Table 13 - Statistics of the Three Major Stock Indexes**



**Figure 4 – Stock Prices of MCAD Vendors**

**Figure 4 is a graphical version of Table 12.**



Figure 5 below shows the steep decline (average -33%) in stock prices over the calendar year 2008.

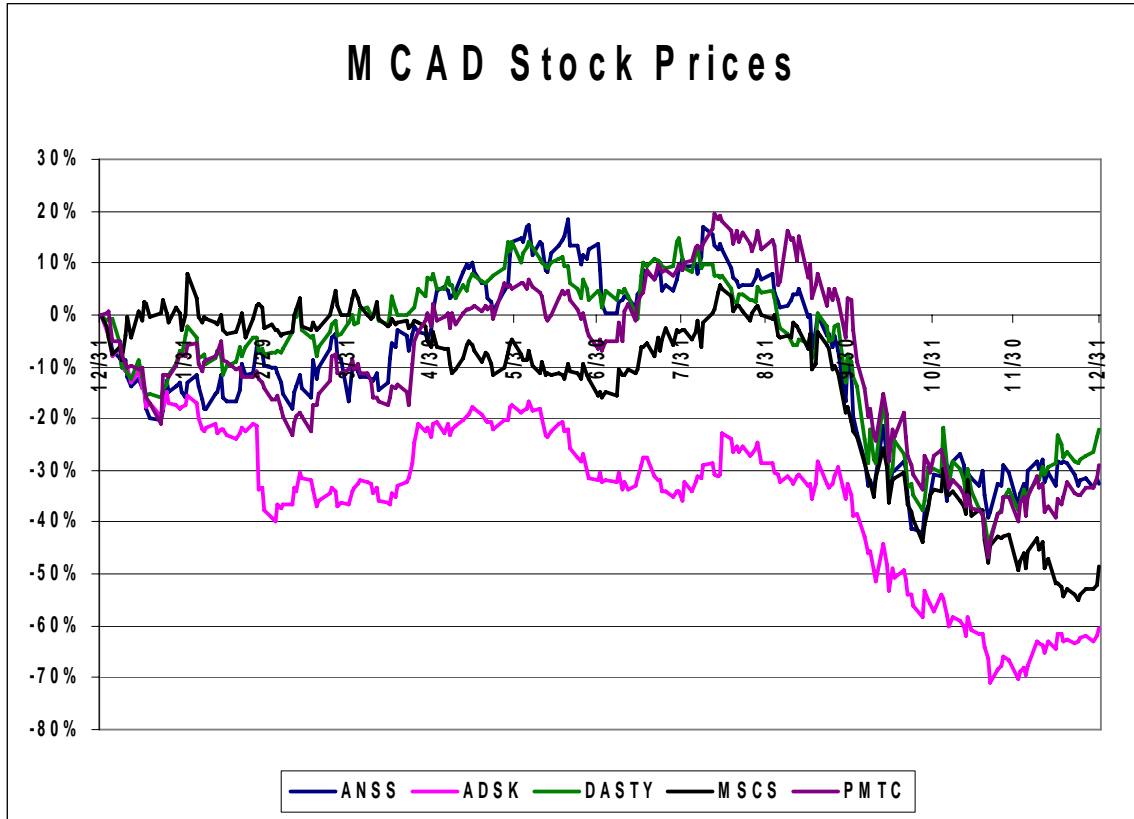


Figure 5 MCAD Vendors' Stock Prices for Calendar 2008

Figure 6 below shows the stock indexes performance for calendar 2008 which dropped on average about 38%.

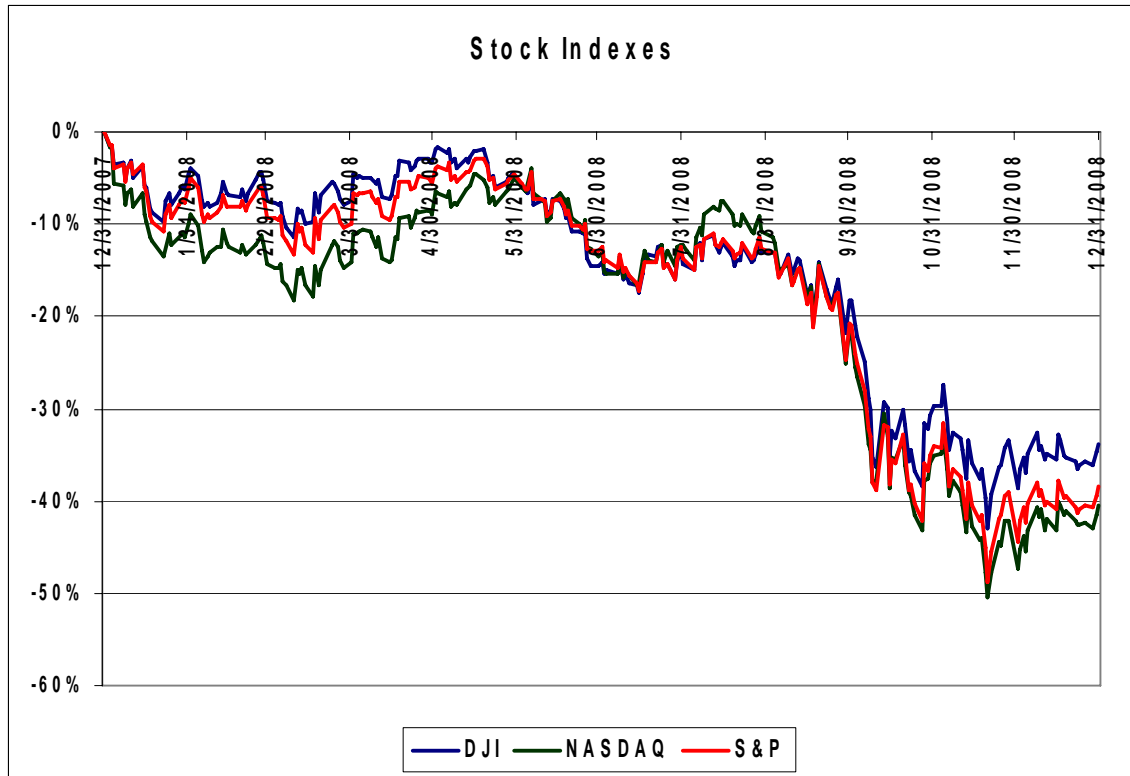


Figure 6 Stock Indexes for Calendar 2008

### The COLLAPSE OF THE ECONOMY

A detailed essay on the collapse of the economy was included by the authors in the December 2008 MCAD Industry Commentary:

[http://www10.mcadcafe.com/nbc/articles/view\\_article.php?articleid=625583](http://www10.mcadcafe.com/nbc/articles/view_article.php?articleid=625583)

Since then, the economic news has not improved.

This is the reality: Jobs being cut and unemployment is rising in virtually all sectors of the US economy and among virtually all demographic groups. At the same time, families' housing values and retirement savings have been pummeled; fully 13.6 million Americans now owe more on their mortgages than their homes are worth, and retirement accounts have collectively lost more than \$2 trillion in little more than a year. And by all indications, the worse is yet to come.

We all found out on February 27, 2009 that the US economy at the end of last year actually contracted at a far faster rate than initially estimated, according to a US Bureau of Economic Analysis report. The decline in the country's gross domestic product in Q4 2008 was the worst since the 1982 recession. Output fell 6.2% at an annualized rate in the fourth quarter of 2008, revised downward from a previous estimate of a 3.8% decline.

On March 6, 2009, more bad news was released by the US Labor Department. The nation's unemployment rate rose to 8.1% in February 2009, the highest since 1983, as employers chopped another 651,000 jobs.

Both figures were (as usual) worse than analysts expected. And as usual, revised figures released March 6 show even deeper payroll reductions in the prior two months: the economy lost 681,000 jobs in December 2008 and another 655,000 in January 2009. Since the recession began in December 2007, the economy has lost an incredible 4.4 million jobs.

The U.S. is now in its deepest economic slowdown since the 1930's. Bush 43 and his administration bequeathed monumental problems for President Obama and the rest of us to overcome. The downward spiral has tremendous momentum and it'll be very hard to reverse.

As a giant first step, President Obama and his fellow Democrats muscled a \$787 billion Stimulus Bill through Congress in mid-February 2009, despite nearly universal Republican opposition, and despite the fact that Republican policies (of deregulation, deficit spending, lower taxes, needless wars like IRAQ, etc.) were the very policies that got the economy in trouble in the first place. Worst of all, many Republican politicians have said that they are hoping that the now lawful Stimulus Bill fails, thereby hurting millions more Americans, just so that "the GOP might gain congressional seats in 2010."

But the new Stimulus Bill is just one step. There are many, many more painful actions that still need to be taken, over years, by the government and by its citizens, to recover from the current economic mess.

#### Forecast Guidance from Individual MCAD Providers

Only four MCAD firms offered guidance for the next quarter. Consistent with the poor economy, their combined forecast projects a drop of 16% compared to the same quarter a year ago and a drop of 18% relative to the quarter just reported. On a year-over-year basis Autodesk is the most negative with a forecasted decline of 30%. ANSYS is the only firm to project year-over-year growth (recall ANSYS acquired Ansoft last July 2008).

On a sequential basis all the MCAD vendors see a drop from the historically-strong fourth quarter.

Company	Next Quarter	Current Quarter	Delta	Same QTR Last Year	Delta
ANSYS	121	135	-10.6%	110	10.5%
Autodesk	420	489	-14.1%	599	-29.9%
Dassault (€)	330	383	-13.8%	307	10.0%
Dassault (\$)	429	505	-15.1%	461	-6.9%
ESI Group (€)	NA	15.3		12.9	
ESI Group (\$)	NA	23.0		17.7	
MSC	NA	65		61	
PTC	225	240	-6.4%	258	-12.8%

Table 14 Forecasts for Next Quarter

As guidance **ANSYS** expects revenue on the next quarter to be in the range of \$117 million to \$125 million, compared to \$135 million in the quarter just reported and compared to \$110 million in the year ago quarter. For the full year ANSYS expects revenue in the range of \$530 million to \$590 million compared to \$478 million in the year just completed.

*Given the uncertainty of the current markets, **Autodesk** is only providing guidance for its fiscal first quarter of 2010 at this time. Net revenue for the quarter is expected to be in the range of \$400 million and \$440 million. This compares to \$489 million in the quarter just reported and compares to \$599 in the same quarter a year earlier.*

Alain de Rouvray, Chairman and Chief Executive Officer of **ESI Group**, said, "We expect our sales to show significant seasonal variations, with most sales coming in the fourth quarter, barring unexpected events arising from the economic situation."

Bernard Charlès, Dassault Systèmes President and Chief Executive Officer, "We expect 2009 to be a difficult global economic environment in which to operate, but we move into the year with an expanded addressable market, strengthened sales channels, and a richer product portfolio to serve our customers. Moreover, our new Version 6 collaborative platform enables us to bring more flexibility and value to our customers through further coverage of industry processes. We are pleased that a number of companies, across consumer goods, energy, life sciences, high tech, as well as aerospace and automotive, have become strategic partners with DS as we work closely with them to leverage 3D PLM for sustainable product development."

According to Thibault de Tersant, Senior VP and CFO Dassault Systemes' initial revenue objective (non IFRS) for the first quarter of 2009 is about €325 to €335 million with \$US conversion rate at 1.3.

They are basing their assessment of new license activity on the assumption that the 2009 environment remains similar to the fourth quarter of 2008, taking this as the starting point for the first quarter and then applying historical quarterly new license revenue patterns for the rest of the year. For the first quarter they are assuming new licenses decline about 22% in constant currencies. For the full year their estimate is for a decrease in new licenses revenue of about 10% in constant currencies.

Thibault said "Based upon these factors and currency assumptions, leads us to target a non-IFRS revenue growth objective of about 1 to 3 percent in constant currencies for 2009; a stable non-IFRS operating margin of about 25.5 percent, and non-IFRS earnings per share of about 2.02 euros to 2.12 euros. If market conditions change, we will update our financial objectives. Including currency exchange rate assumptions this leads to a reported revenue range for 2009 of about 1.405 billion to 1.425 billion euros."

Regarding guidance C. Harrison, **PTC** CEO, said, "Our pipeline for new business opportunities remains strong. We are, however, experiencing lengthening lead times and reduced spending on large deals and our reseller channel is also being impacted by softening end-market demand. Recognizing that the margin for error is greater than it has historically been due to the uncertainties of the current environment, we

are currently expecting FY'09 revenue of approximately \$960 million, with Q2 revenue in the range of \$220 million to \$230 million."

PTC also noted. "We are expecting license sales to be down approximately 35% compared to FY'08. For Q2'09, we are expecting a \$5 to \$10 million sequential decline in license revenue, as we believe that macroeconomic conditions will continue to deteriorate, at least in the short term."

[MCADCafe.com](http://MCADCafe.com). MCADCafe.com currently tracks the financial performance of multiple public companies in the Mechanical CAD market. Eight (8) companies were chosen for the author's May 8, 2003 initial Commentary. Four of these companies (*Autodesk, Dassault Systemes, PTC* and *EDS PLM Solutions (now named Siemens PLM Software, privately-held within Siemens AG)*) represented approximately 85 percent of the total revenue in this grouping, and each of these four companies offers a wide array of software and services products across the entire design to manufacturing space. The remaining four public companies (*ANSYS, Moldflow, MSC.Software* and *Tecnomatix*) offered specialized software/services products in specific MCAD niches and together they created the remaining 15 percent of the total group-of-8's revenue. Indeed, these latter four companies frequently partnered with the initial four to provide end-customers with broader solution suites.

For the author's August 2003 Commentary in [MCADCafe.com](http://MCADCafe.com), a ninth company, the ESI Group, was added. All nine were studied thereafter for comparison purposes. Tecnomatix has since been acquired by UGS (now Siemens PLM) and hence has been removed from this report. As a result of that acquisition of UGS by Siemens, Siemens PLM no longer provides any financial data and therefore has also been dropped from the list. Moldflow was acquired in June 2008 by Autodesk and has been dropped from the list

The combined worldwide total annual revenue of these companies is now well over \$5 billion, not an insignificant sum. But it is, in fact, less than a few percent of the hundreds of billions spent annually on all types of software. *So why study MCAD companies at all?* The key to MCAD's importance lies in the leverage its users apply to create the everyday durable goods with which we are all familiar: automobiles, trucks, military gear & weapons, appliances, farm & construction equipment, aircraft & aerospace vehicles, etc. In short, MCAD is arguably responsible for enabling today's manufacturing industries, which are the centerpieces of creating real productivity and wealth in every modern economy.

Understanding the comparative MCAD revenue content of various vendors is not merely academic. For example, it helps observers better understand the likely future competitive MCAD strength of each vendor relative to its peers in such areas as amount of money available for R&D, for potential new acquisitions, for financial stability to weather economic cycles, and for other key business factors. In comparing financial performances of the four largest MCAD companies tracked by [MCADCafe.com](http://MCADCafe.com), it's instructive to account for the actual MCAD content of each. For example, the revenues of Dassault and PTC can arguably be considered 100% MCAD in nature, whereas Autodesk's total revenue is only partially made up from its business in MCAD. Some Autodesk revenue (~15%) stems from a segment which provides systems and software for creating and animating imagery. Even in the remaining 85% of Autodesk's total revenue, derived from its Design Solutions Segment, is divided among solutions for *Manufacturing, GIS, AEC*, and the *platform technology group*. Only the solutions of the *Manufacturing Group* (*Inventor, AutoCAD Mechanical, Mechanical Desktop, Streamline, Point A*, etc.) might be thought of as "pure" MCAD revenue.

It should also be noted that the companies have different business models. IBM, both direct and through Business Partners, is the exclusive marketing and sales arm for many of Dassault Systems high end product lines: CATIA, Enovia and Delmia. The IBM channel also carries SmarTeam solutions in a non-exclusive basis. IBM records the end user revenue and pays DS a royalty of approximately 50%. DS has been taken over increasing responsibility for managing IBM Business Partners. DS subsidiary SolidWorks is sold through value added resellers. Autodesk sells its products overwhelmingly through valued added resellers. The

other MCAD vendors sell mostly on a direct basis. Direct sales result in greater percentage of end user revenue recognition but also involve higher cost of sales and risk.

Siemens PLM annual revenues are right there at similar levels as the world's other MCAD revenue leaders Autodesk, Dassault and PTC. For purposes of our discussion, we considered the revenues from the remaining public companies (*ANSYS, ESI Group, Moldflow, and MSC.Software*) to be 100% MCAD.

####

**Comments? Feedback?** Tell us what you think about this topic, or share any additional information you may have on the subject! Submit your comments to: [Email Contact](#).

**About**

**the**

**Authors:**

Since 1996, **Dr. Russ Henke** has been president of HENKE ASSOCIATES, a San Francisco Bay Area high-tech business & management consulting firm. The number of client companies for Henke Associates now numbers more than forty. During his corporate career, Henke operated sequentially on "both sides" of MCAE/MCAD and EDA, as a user and as a vendor. He's a veteran corporate executive from Cincinnati Milacron, SDRC, Schlumberger Applicon, Gould Electronics, ATP, and Mentor Graphics.

Henke is a Fellow of the Society of Manufacturing Engineers (SME) and served on the SME International Board of Directors. He is also a member of the IEEE and a Life Fellow of ASME International. In April 2006, Dr. Henke received the **2006 Lifetime Achievement Award** from The CAD Society, presented by CAD Society president Jeff Rowe at COFES2006 in Scottsdale, AZ. In February 2007, Henke became affiliated with Cyon Research's select group of experts on business and technology issues as a Senior Analyst. This Cyon Research connection aids and supplements Henke's ongoing, independent consulting practice (HENKE ASSOCIATES).

An affiliate of the HENKE ASSOCIATES team since 2001, LA-based **Dr. John R. (Jack) Horgan** co-authored this **March 2009 MCAD Industry Commentary**. Dr. Horgan's prior corporate career has included executive positions at Applicon, Aries Technology, CADAM and MICROCADAM, as well as a stint at IBM. Dr. Horgan is also an editor of EDACafé Weekly.

Since May 2003 the authors have now published a total of seventy-four (74) independent articles on MCAD, PLM, EDA and Electronics IP on IBSystems' MCADCafé and EDACafé. Further information on HENKE ASSOCIATES, and URL's for past Commentaries, are available at <http://www.henkeassociates.net>. March 31, 2009 marks the 13th Anniversary of the founding of HENKE ASSOCIATES.

Inquires for new consulting engagements are welcome; see <http://www.henkeassociates.net>.

