

Topic:  
MCAD

## Global Web Search as a New Marketing Planning Tool for CAD Vendors

*A study based on leading MCAD solutions*

21 October 2008

By Marek Villermann, The Business Advantage Group plc

### Article Highlights:

- Search volume for MCAD products by year
- Search volume trends and regional interest

### Objectives

Business Advantage conducted some analysis into the changing levels of interest in leading Mechanical CAD solutions between 2004 and 2008. Products included in the study were Inventor (Autodesk), SolidWorks Office and CATIA (Dassault Systèmes), Solid Edge and NX (Siemens), Pro/ENGINEER (PTC).

The study analyzes the actual **search volume trends** for each MCAD product, looks at the mid-range and high-end MCAD products groups as separate entities and shows search volume through various geographic segments. Dynamics of interest and regional differences in search volume are typically aligned to vendors' global strategies and channel partner activities, highlighting how vendors are contributing to the growth in interest in their own products. Considering web search volume, could become a valuable tool for CAD vendors and their partners in marketing planning.

### Methodology

Our analysis is based on data from the [Google Insights for Search](#) (a recent service launched by Google in August 2008) represented in the "Volume" column in the table below which shows which MCAD products were entered into the Google search engine. To ensure the analysis meets brand and chronological compliance we selected "Autodesk Inventor", "SolidWorks Office", "Solid Edge", "CATIA", "Pro/ENGINEER", "UG NX" (for 2004-2007) and "Siemens NX" (2008 only). The data for these particular product names is based on IP addresses and analyzes a portion of worldwide Google web searches from all Google domains and indicates interest over time, plotted on a [scale from 0 to 100](#).

### Notes

- The words "search volume" and "interest" used in this article are considered as equivalent terms
- RP 0% stands for Reference Point to which other percentages forth are calculated

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

**Web Search Volume Change for Leading MCAD Products: Period 2004 to 2008**

Most Active	Autodesk Inventor		SolidWorks Office		Solid Edge		CATIA		Pro/ENGINEER		NX	
Year	Volume	Change	Volume	Change	Volume	Change	Volume	Change	Volume	Change	Volume	Change
2008	65	-1%	81	1%	57	-2%	63	3%	53	4%	67	56%
2007	66	-3%	80	21%	58	-2%	61	-8%	51	-9%	43	-9%
2006	68	-11%	66	22%	59	-14%	66	-12%	56	-16%	47	-15%
2005	76	-8%	54	-10%	69	-14%	75	-11%	67	-18%	55	-19%
2004	83	RP 0%	60	RP 0%	80	RP 0%	84	RP 0%	82	RP 0%	68	RP 0%

Percentage in the “Change” column represents current search volume strength vs. previous year, e.g. interest for Autodesk Inventor changed by **-1%** in 2008 vs. 2007.

**2005 (vs. 2004)**

- Overall there was a reduction (**-13%**) in web search volume in 2005, across the six leading MCAD products

**2006 (vs. 2005)**

- Declining interest for five MCAD products (Autodesk Inventor, Solid Edge, CATIA, Pro/ENGINEER, and UG NX) continues to deepen (**-14%**). In contrast interest for SolidWorks Office shows grows strongly (**22%**)

**2007 (vs. 2006)**

- Decline in interest for Autodesk Inventor, Solid Edge, CATIA, Pro/ENGINEER and UG NX continues (**-6%**), however this was much lower than 2005-2006, and showed signs of stability. A slight decline for Autodesk Inventor (66) and Solid Edge (58) on the levels of the previous year - 68 and 59 respectively – but a bigger decrease for Pro/ENGINEER (**-9%**), UG NX (**-9%**) and CATIA (**-8%**)
- SolidWorks Office’s growth of interest continues by **21%** remaining robust and similar to the previous year

**Year-to-date 2008 (vs. 2007)**

- The current leader in terms of search volume strength is SolidWorks Office (81), followed by Siemens NX (67), Autodesk Inventor (65) and CATIA (63). In 2008, interest for the five MCAD products remained similar to levels of 2007 with negligible fluctuations, the exception being Siemens NX

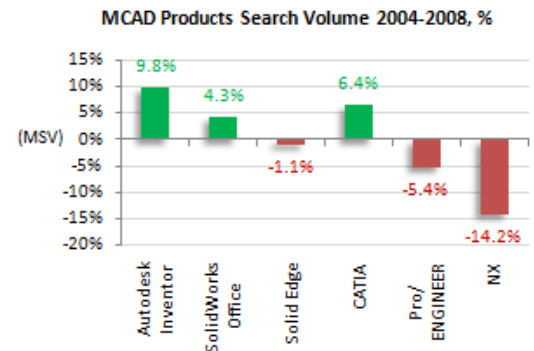
- Interest in NX (56%) appears to be strengthening, reaching the second highest five year level (67), apparently due to the acquisition of UGS by Siemens in 2007

## Search Volume Trends and Regional Interest

### MCAD Products Mean Search Volume

Mean Search Volume (**MSV**) strength in 2004-2008 for all six MCAD products was 65.3 (0%). The **MSV** is the average of a strength volume of six MCAD products in 2004-2008.

The chart to the right shows the strength for each MCAD product vs. **MSV**. Thus Autodesk Inventor (9.8%) and CATIA (6.4%) had the highest search volume in this period and NX (-14.2%) the lowest.



### MCAD Product Groups

Traditional [MCAD Product Groups](#) typically include:

#### MCAD Product Groups

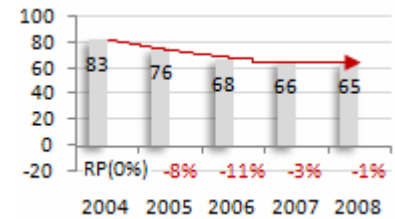
- Mid-range market products (e.g. Autodesk Inventor, SolidWorks Office, Solid Edge)
- High-end market products (e.g. CATIA, NX, Pro/ENGINEER)

Our analysis of retrospective data from 2004-2008 does not take into account the [new MCAD product group proposition](#), where Pro/ENGINEER now broadly fits the category of mainstream MCAD (mid-range group).

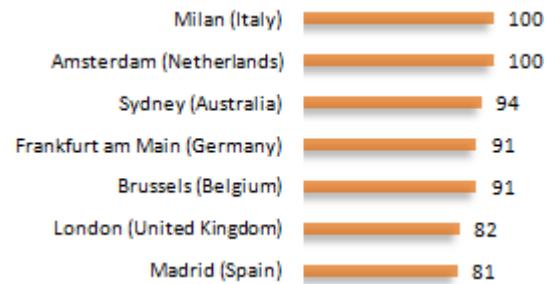
## Mid-Range MCAD Product Group

### Autodesk Inventor

Search volume strength for Autodesk Inventor shrinks in 2005-2006 (-19%). However for the whole period 2004-2008 Autodesk Inventor's average interest (71.6) was strongest with 9.8% above **MSV** and remained robust with minor search volume fluctuations in 2007-2008.

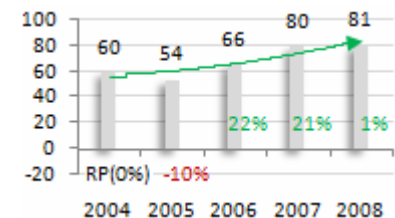


Top cities generating the strongest search volumes in 2004-Year-to-date 2008 include:



### SolidWorks Office

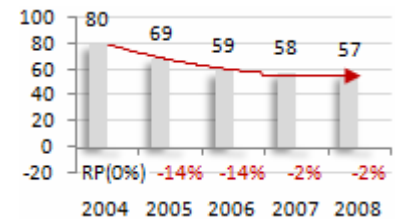
The average interest in SolidWorks Office (68.2) was one of the strongest in 2004-2008 with 4.3% above **MSV**. Interest turned positive in 2006 and increased significantly later, however in the previous year 2004-2005 interest was considerably lower. In 2006-2008 SolidWorks Office search volume reached its peak and remains robust.



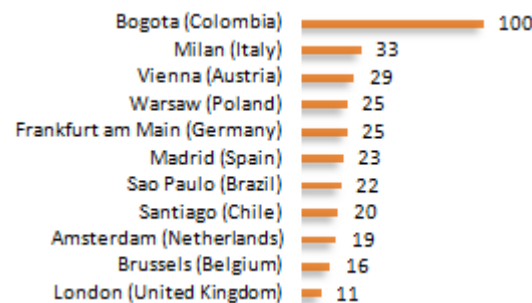
Google Insights for Search did [not have enough search volume to show results](#) for top cities.

## Solid Edge

Average search volume for Solid Edge in 2004-2008 was **-1.1%** in line with the **MSV**. From 2006 the search volume dropped to another **-4%** below the level of **MSV** and until Year-to-date 2008 remained robust.

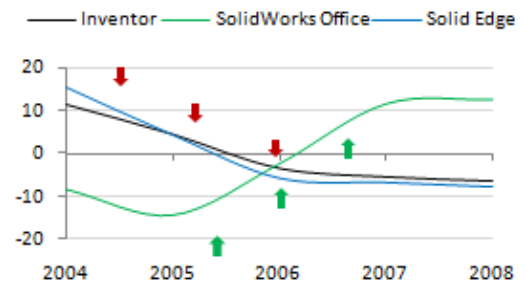


Top cities generating the strongest search volumes in 2004-Year-to-date 2008 include:



## Trends in the Mid-Range Product Group

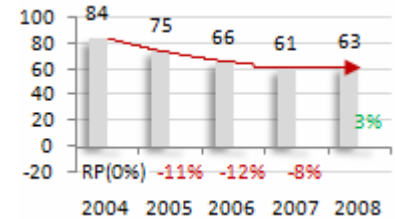
- In 2005 search volume identically decreased for all group members
- In 2006 decline continued but only for Autodesk Inventor and Solid Edge. Interest for SolidWorks Office shows strong opposite trend within a mid-range group in 2006 and continued to grow in 2007. Apparently part of the market particularly interested in Autodesk Inventor and Solid Edge switched to SolidWorks Office (right chart)
- In 2007 decrease of search volume has almost stopped for Autodesk Inventor and Solid Edge remaining **1%** above and **-11.2%** below the level of **MSV** accordingly. SolidWorks strongly contributed to the growth of mid-range market in 2006-2007



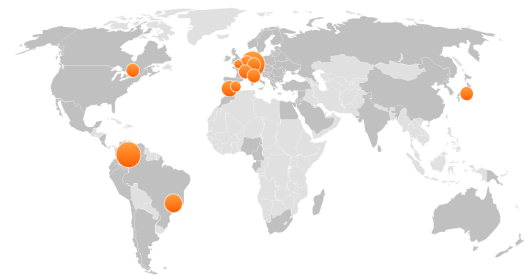
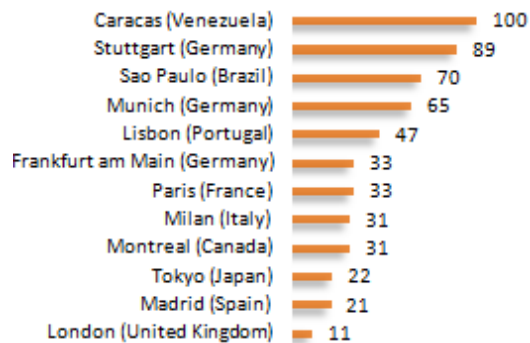
## High-End MCAD Product Group

### CATIA

Average search volume (69.8) was strongest amongst the high-end products in 2004-2008 with **6.4%** above **MSV**. Interest decreased in 2005-2006 similarly to the mid-range product group however in 2007 dropped to **-8%**.

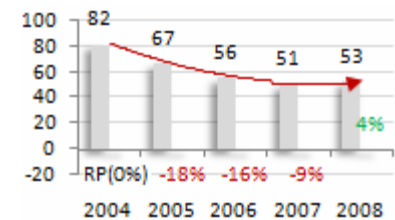


Top cities generating the strongest search volumes in 2004-Year-to-date 2008 include:

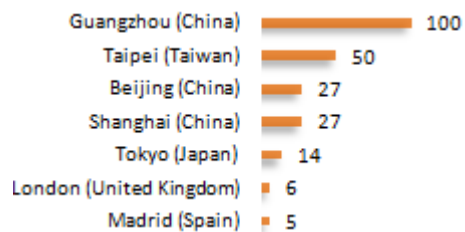


### Pro/ENGINEER

Average search volume (61.8) was **-5.4%** below the **MSV** in 2004-2008. In 2005-2006 Pro/ENGINEER followed to the mid-range product group decrease. However in 2007 continued to decrease to **-9%** below **MSV**.

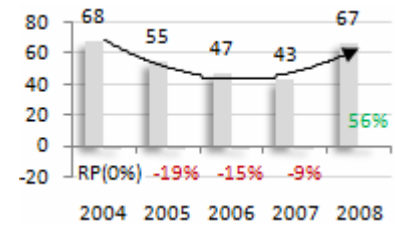


Top cities generating the strongest search volumes in 2004-Year-to-date 2008 include:

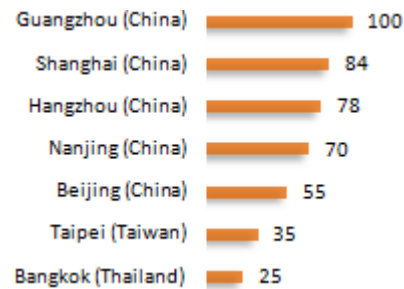


## NX

Average search volume (56) was very weak **-14.2%** below **MSV** in 2004-2008. Lowest levels of interest for NX were in 2006-2007. In 2007 changes of ownership boosted the interest for NX and in 2008 interest reached the highest five year level.



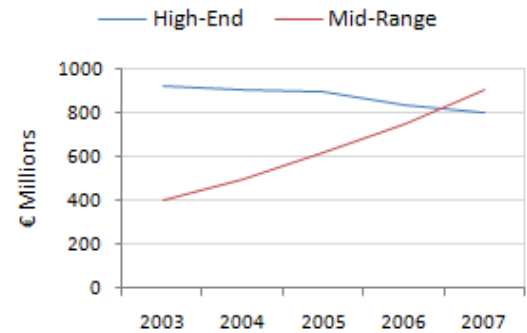
Top cities generating the strongest search volumes in 2004-Year-to-date 2008 include:



## Trends in the Mid-Range and High-End Product Groups

- In 2005-2006 search volume for the high-end product group had tumbled to **-30%** below the **MSV** with CATIA at **-23%** of search volume, Pro/ENGINEER and NX both at **-34%**. High-end group search volume loss tripled in comparison to the mid-range product group (**-10%**) for the same period
- In 2007 search volume for the high-end product group continued to decrease accounting for **-9%** for the group. For the same year 2007 the mid-range product group average was positive **(5%)** ahead of the high-end product group by 14%
- General search volume for both mid-range and high-end product groups indicated that in part interest had switched from the high-end product group to the mid-range one. For example, to follow the market needs Pro/ENGINEER has repositioned itself in recent years, it more broadly fits the category of mainstream MCAD with PLM focus according to the [new MCAD product group proposition](#)

- The general search volume trend for both MCAD groups is in line with global growth in values (€ mil) of the mid-range group and the decrease of high-end group according to some [market studies](#). Right chart shows the trend in Mid-Range vs. High-End MCAD European market representing trends in global market



### Follow Up

Search volume updates for MCAD products including geographic segments and industry sectors as well as similar insights for other CAD products and markets will be provided in future editions of CAD Spaghetti.

Please [Click HERE](#) to leave a comment or question.