3D Visualization -- Could It Be Today's Betamax vs. VHS (X vs. Adobe)?

As a strong proponent of 3D Visualization tools (High End tools such as; UGS's JT, PTC's ProductView, Dassault's 3D XML, Lattice's XVL, Right Hemisphere, Actify and others) for years, I have began struggle with which format is the best or best utilized (or will be).

But wait, how is the best format for 3D visualization established? After all what does "the best" mean to you? Has it all changed with another player in the mix called Adobe with their 3D PDF?

Before we begin to discuss the questions above let's take a quick look at what happened in the Betamax vs. VHS. Here is a fairly good excerpt from an article on Mediacollege.com (full article at: http://www.mediacollege.com/video/format/compare/betamax-vhs.html).

"Sony's Betamax video standard was introduced in 1975, followed a year later by JVC's VHS. For around a decade the two standards battled for dominance, with VHS eventually emerging as the winner.

The victory was not due to any technical superiority (Betamax is arguably a better format), but to several factors. Exactly how and why VHS won the war has been the subject of intense debate. The commonly-held belief is that the technically superior Betamax was beaten by VHS through slick marketing. In fact the truth is more complex and there were a number of reasons for the outcome.

Sony's founder, Akio Morita, claimed that licensing problems between Sony and other companies slowed the growth of Betamax and allowed VHS to become established. However most commentators have played down this issue and cited other reasons as being more important.

It is certainly true that VHS machines were initially much simpler and cheaper to manufacture, which would obviously be an attraction to companies deciding which standard to back. It has also been reported that Sony inadvertently gave its competitors a helping hand by revealing key aspects of Betamax technology which were then incorporated into VHS.

In any case, manufacturers divided themselves into two camps: On the Betamax side were Sony, Toshiba, Sanyo, NEC, Aiwa, and Pioneer. On the VHS side were JVC, Matsushita (Panasonic), Hitachi, Mitsubishi, Sharp, and Akai.

For consumers, the most immediately obvious difference between the two formats was the recording length. Standard Betamax tapes lasted 60 minutes — not long enough to record a movie. Conversely, the 3-hour VHS tapes were perfect for recording television programmes and movies. Sony did adapt and offer various solutions for longer recording, but it was too late. The issue of recording time is often cited as the most defining factor in the war. …"

As with Betamax vs. VHS the fight over visualization formats may not be won based on technical superiority. For example, the functionality for high end visualization tools such as the ones I mention earlier is amazing. Items like measurement, markup, and product structure are all terrific in their own right. However, it seems as if this functionality has been limited to the engineering world with only minor in roads into all other aspects of business. Especially, if you compare this to the in roads that Adobe has had with its PDF format. Just ask yourself where you haven't seen PDF's in any aspect of a business.

Marketing of visualization tools is a part of the picture but as with Betamax vs. VHS it most likely will not be the critical factor. After all anyone in the business knows that slick marketing only goes so far. The more important factors include; accessibility/licensing, cost and of course acceptance to change.

While I must give credit to UGS for it JT open initiative, it maybe similar to Sony's licensing issues with Betamax? Too little to late? After all it was not until after Adobe announced it public availability of Adobe 3D did companies such as UGS and Dassault kick off increased marketing. See: UGS' 3D JT Data Format Publishing Strategy Draws Strong Support (http://www10.mcadcafe.com/nbc/articles/view_article.php?section=CorpNews&articleid=244892) and Dassault Systemes Announces Adoption Of 3D XML Technology Into Virtools Solutions (http://www10.mcadcafe.com/nbc/articles/view_article.php?section=CorpNews&articleid=252099)

What does this mean? Hopefully 3D visualization will reach far beyond engineering departments. I used to have a quote hanging in my office from Edward McCracken former chairman of SGI. The quote was "If a picture contains a thousand words than a 3D model contains a thousand pictures". I think that quote helps people better understand the value of 3D visualization.

From a consumer viewpoint, Adobe's entrance into the 3D visualization market is a welcome one. At a published price of $995 and a very high usage/acceptance rate in business (the whole value chain) Adobe 3D PDF may be today's VHS for 3D visualization. However, the other vendors will not stand still. As a result consumers will eventually have a format that is common and shared, no mater if it is the Betamax's or VHS for 3D visualization.

Finally, I would suggest that the winner will be the one that is low cost, common, shared and accepted throughout all business aspects. But, time will tell who that will really be.

Thank you,
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