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Interview Francis Cadin Blog Novedge

<http://blog.novedge.com/2007/06/an-interview--1.html>

1. Francis, can you tell us a bit about yourself and your company?

Datakit is a privately-owned company that I founded in 1994 and that is specialised in CAD data exchange. I set up Datakit because I was convinced that the development of the use of CAx solutions was going to generate a large volume of CAD data exchange. The company has grown. Now we have a staff of 25, twenty of whom work in R&D and technical support. In 2006, we launched Datakit Inc in California and are currently looking at a project to open an office in China. Our products, plugs-ins, standalones, vendor-embedded components, and data correction solutions have been successfully adopted worldwide.

2. CAD Data translation is not a perfect science. During the process something always gets lost in translation. How do you usually explain this to your customers?

No, CAD Data translation is not a perfect science but you have to acknowledge that most of the limitations are linked to weaknesses in standard formats like IGES and DXF. We based our technology on the modelling paradigms used in the original models and assemblies. Hence our strong attachment to native formats, which alone let users recover complete CAD data structures and maximise the number of entities exchanged. We can make a commitment to being able to read specific items of data. The rest is a question of resources! However, reading native formats is not always easy. Users are savvy to the fact that software architecture always has some surprises in store.

3. Data translation is quickly moving from being packaged as a standalone application to being embedded inside CAD systems. What are the challenges in making a software module compared to developing an independent application?

We are focusing on breaking down the entities into the finest grained detail possible and on building structures that enable data to be stored thoroughly and then used as needed by different applications. Data exchange impacts an increasing range of disciplines. This makes it natural and imperative to work with vendors to enable as many end-users as possible to exchange their CAD data. Datakit collaborates as an OEM with some fifty vendors. Supplying these software components accounts for 70% of our revenue. This upstream collaboration delivers benefits to end users in industry who can turn to local dealers in our network for support.

4. You recently moved with a part of your company from France to Santa Barbara, CA. How is your perception of the US market changing now that you're looking at it from the "inside"?

It is true that the US market looks different from here. Flying over from Europe, even regularly, is no substitute for day-to-day contact! Seen from across the Atlantic, the potential of the US market is huge, with so many world-famous vendors here. Even more striking though is the dynamism of the market, its ability to keep on creating new products and the positive attitude in the business.

5. The consolidation of the CAD market has greatly reduced the number of CAD systems. Has this evolution also reduced the need for data translation? How have the end-users' needs changed in the last few years?

If you look at just the CAD market, the number of players has thinned a bit, though in my opinion, that doesn't tell the whole story. Some companies have disappeared but others have emerged. Consolidation does not necessarily have an immediate effect on data exchange strategy. Compatibility issues have not moved on much. On the contrary interoperability issues have increased the need for data exchange and considerably exceeded the scope of CAD. CAD models provide a working basis for more and more disciplines.

In technical terms, the substantial growth over the last few years is the switch from IGES surface data to STEP, which does a much better job of handling solids and assembly data.

6. Datakit “promiscuity” (your software is embedded in competing products from different manufacturers) places you in a privileged position to observe new trends.

What is going to be the evolution of current CAD systems?

The current trend is of course all about managing FTA modules from Catia V5, UG's PMI and all the other data of this type. Companies must work from these modules to increase productivity. Exchanging 3D models that have dimensioning and tolerancing data is of course essential. Datakit has been proactive in this area for the last 4 years. We have been working with vendors of data inspection solutions for whom the ability to build this information into the 3D model is an additional guarantee of quality. Viewer developers who facilitate access to CAD data are also among our prime targets. Manufacturing departments are also interested and this could lead to 2D paper drawings disappearing completely from many workshops.

7. If you were a CAD manager and had to choose a file format for the long term archival of your company strategic data, which file format would you choose, and why?

Ideally, and on the strength of the data we have at the moment, we would recommend three methods. The first for 2D in DXF (V12 for example), then IGES for its robustness and availability across all software brands. However, given the limits of IGES, we would add STEP. It's a neutral format, independent from hardware and CAD systems. It provides a comprehensive and unambiguous description for 3D models. It also supports association of Validation Properties, which makes it possible to check the validity of imported data (either as simplified volumes to view parts and assemblies, or clouds of points for detailed face representations).

In fact we agree with the specialists of the Lotar project who recommend the software and define how it should be used, arguing that it is the only way to process all the data in the CAD model, assemblies and their dimensioning and tolerancing information.