



October 2001

Topic: **CAD data exchange**

CAD &
Data Exchange

Views from CAD/CAM Managers at Mechanical Engineering sites

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

No discussion on the future of the CAD industry seems complete without the issue of interoperability raising its ugly head. How does the move to an engineering world of solid modelling, collaborative working and outsourcing square with the presence of different proprietary formats among the thirty or so MCAD products on the market?

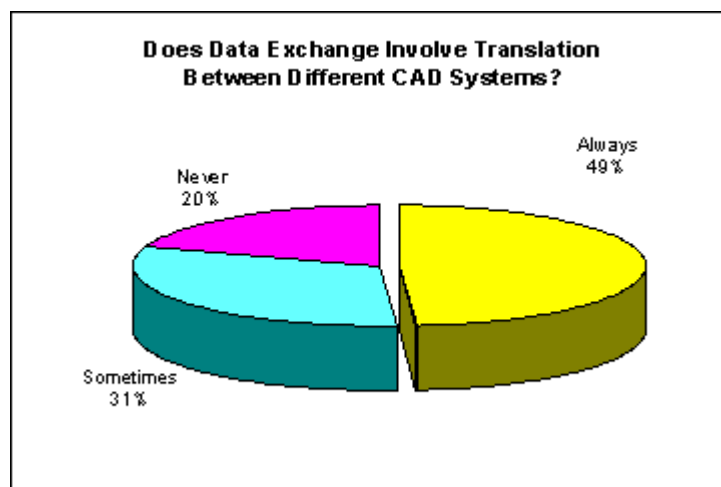
To assess how MCAD users are coping with the issue, we interviewed decision makers with responsibility for CAD functions at 210 UK mechanical engineering sites.

The Sharing Majority

Nearly four out of five of the sites engage in the exchange of CAD data with other companies in the supply chain.

The sample of 210 sites is representative of the distribution of site sizes (by number of employees) in the mechanical engineering sector.

Of these 165 sites, half said this exchange **always** involves translation between different CAD systems, and nearly a third said translation was **sometimes** involved. This leaves one in five who exchange data with others who use the same CAD system.





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Taking Responsibility

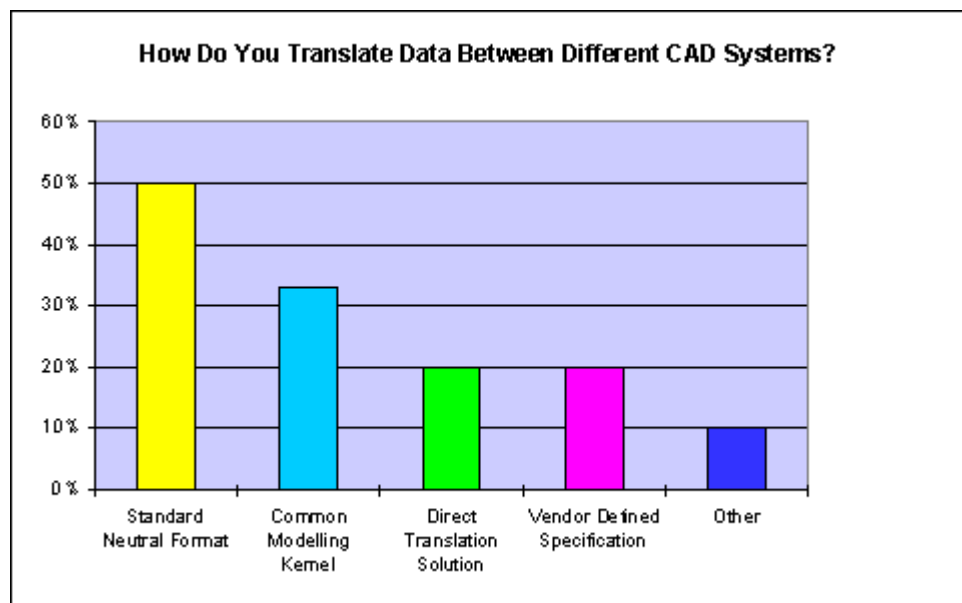
Of those involved in exchanging data, a quarter pass the responsibility of any translation work to the other party or parties with whom the exchange takes place. Nearly a half (44%) said responsibility for data translation varies according to whom they were dealing with, and 31% said they always have responsibility for effective translation.

Translation Methods

Of the sites that sometimes or always take responsibility for data translation:

- Half are using standard neutral formats such as IGES or STEP.
- For a third, data exchange occurs between CAD systems with common modelling kernels.
- One in five are using a direct translation solution or outsourced service.
- One in five are using vendor-defined specifications, such as AutoCAD's DXF, for data transfer.
- Ten per cent are using a variety of other methods.

A significant proportion of sites are therefore using multiple methods to exchange data effectively.



Problem? What Problem?

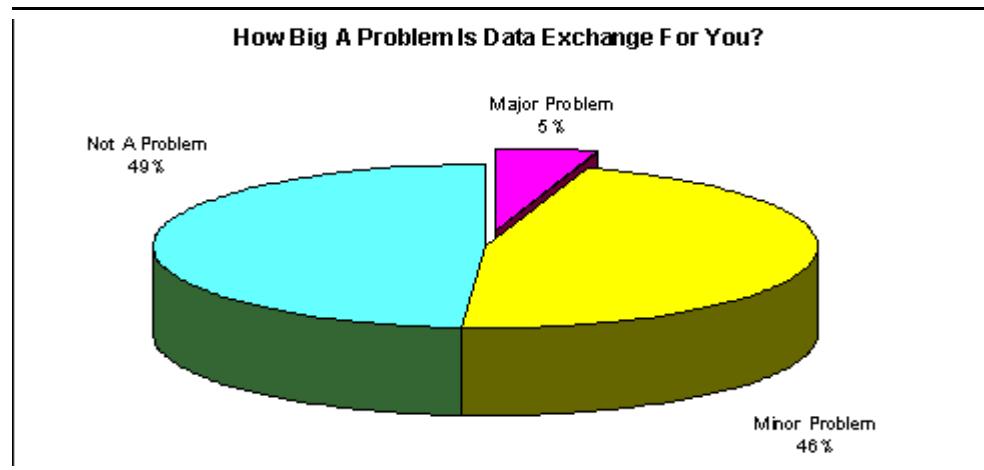
Focusing again on the group of sites with some degree of responsibility for effective CAD



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data translation, we asked how big a problem the issue of data exchange creates for them. **Only 5% said it was a major problem**, 46% said it was a minor problem, and 49% don't regard it as a problem at all.



Conclusion

The sample interviewed represents a broad, cross-section of mechanical engineering sites; the findings therefore make no distinction between the relative attitudes/activities of 2D and 3D CAD users, or those engaging in web-based collaboration and those who aren't. Still, as a snapshot of current attitudes, it's interesting that only 5% of those actually responsible for CAD data translation view the issue as a major problem (representing only 2% of the overall sample).

On the face of it, the numbers of engineering CAD managers tearing their hair out over interoperability problems is less than we are sometimes led to believe. With the practice of CAD data sharing on the increase, **iCAD** will look again in future at how attitudes change as more companies need to exchange more complex data sets throughout the design cycle. Half our sample are using standard formats (eg. STEP) for translation and these sites will find themselves more exposed to the limitations of this method. Data interoperability is undoubtedly a major challenge for the CAD industry, but for the majority of UK MCAD users, it does not appear to be perceived as such at present.

If you wish to raise awareness of your data translation solution or service, find out how our [Telemarketing Services](#) can help.

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