



KONE Moves Towards a Total PLM Solution via Autodesk Inventor® and Autodesk® Vault

Already cutting around 30% of design time with further savings predicted

Not many manufacturers can say that hundreds of millions of people use their products daily. The KONE Corporation, however, is quite able to make this claim. Its lifts and escalators are installed in some of the world's busiest hubs such as major airports and railway stations, hotels and hospitals.

With over 33,000 staff worldwide and annual net sales of over 5 billion euros, KONE is a huge, global concern. It's not surprising then that its UK business lists well-known names such as BAA and London Underground as its clients.

Companies of this calibre rarely invest in software unless they are certain it will bring big benefits.

In fact, KONE in the UK conducted an exhaustive analysis of the options before deciding on Autodesk Inventor® Series, Autodesk Inventor® Professional and AutoCAD® Electrical for its design office.

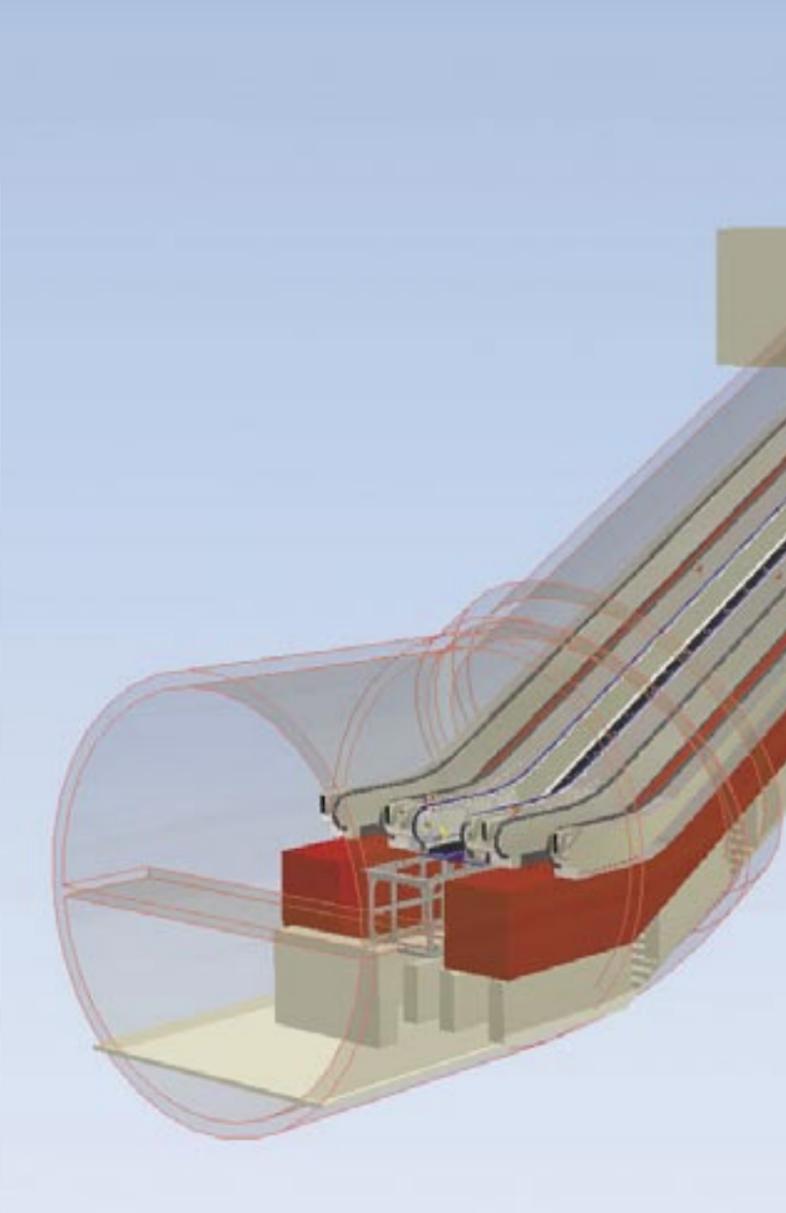
Now this combined solution is helping KONE in many ways, not least by enabling the team to get to the right design faster. In fact, CAD administrator Brian White estimates Inventor saves them a minimum 30% of their time.

He has also just implemented Autodesk Vault, the work-in-progress data management tool supplied with Inventor. "We are working towards a total solution which will provide a practical path towards product lifecycle management," he says.

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Open day

Daniel says, "Inventor helps us to realise and KONE was using a mixture of different CAD systems utilising both UNIX and Windows operating systems. Because of the need to show where different faces meet, designing an escalator in 2D can be complex, often requiring in excess of 30 drawings per module. Needless to say, developing these views was highly time-consuming and White recognised that to keep KONE's competitive advantage, a move to 3D was the next logical step.

Naturally, White wanted to be sure the company was investing in the right product and so carried out a comprehensive market survey over the next 12 months. He was looking for a solution at the right price with good total cost of ownership. It needed to be easy to use, enable the use of legacy data and reliable support must be readily available.

A visit to an open day held by Autodesk Authorised Reseller Trionics was a turning point.

"In fact, we had already decided on Inventor, but we wanted to be sure we would be getting the best support," says White. "We felt Trionics would be able to give this.

"Options other than Inventor were considered but appeared to carry significant higher running costs and also would also require retraining for staff" confirms White. "Inventor, by contrast, seemed to be able to do the same job more cost-effectively and with better integration."

Life is never quite as planned and, with the arrival of an order for three replacement escalators for London Underground, Inventor's user-friendliness was really put to the test. Instead of having the luxury of the planned training sessions, the team found itself learning on a live project. "The best thing about this was that the benefits of Inventor quickly became evident," says White.

For example, using Inventor the team working with London Underground can show how both existing and planned escalators fit in a tunnel.

"Inventor enables us to produce a full working model which we can rotate to show all aspects. We can demonstrate to the customer how the new design will fit to replace the old escalator or existing staircase.

"This helps give the customer confidence in what we are doing. They no longer have to try and interpret drawings, they can actually see what we are hoping to do and discuss it with us there and then. If they want any changes, these are easy and quick to implement – and all the documentation gets automatically updated so we don't have to go back to our office and work our way through, making sure everything ties up".

He says that because implementing Inventor has prompted a review of internal processes and several systems changes, it is difficult to quantify exactly how much time has been saved. "However, at the moment I'd say we are getting designs out around 30% faster and this figure looks likely to increase as new ways of working take hold."

Total solution

KONE has now also invested in Autodesk Inventor Professional for its specialised functionality for cable and wire harness, tubing and piping, with FEA testing via export to Nastran. It has also implemented AutoCAD® Electrical for its electrical control design. Drawings made in AutoCAD Electrical can then be easily imported into Inventor Professional so that work – for example, the development of cable harnesses – can be continued in situ.

It is also implementing Autodesk Vault, the first stage in Autodesk's modular data management solution which actually comes "in the box" with Inventor. Because Vault will help eliminate work-in-progress problems such as time-wasting searches or the need to re-create designs already completed, White anticipates KONE will soon be seeing further time benefits.

Working with Trionics, he is also considering extending KONE's data management capability with Autodesk® Productstream™ and possibly Autodesk® Streamline®.

Productstream will help processes such as the routing of engineering change orders further down the line, linking into enterprise systems such as ERP or MRP.

John Bartle of Trionics says that KONE is one of many companies who are recognising the need for data management, but don't want to commit to a major enterprise system. "Trionics work closely with its customers to help achieve RoI. Using Vault with Inventor is a fast-track to do this."

"Many customers tell us that they feel happier sourcing a whole solution from one vendor," he concludes. "In this case, we predict KONE will compound its savings further as it builds up the complete system."

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*Brian White
CAD Administrator
KONE Corporation*