

# Case study

## Hi-CAD meets process industry's time and cost challenges with CADWorx®.

### Connected to the whole world.

It is not what the Internet does, but what it empowers you to do, that really matters. This is why Hi-CAD can run its successful Plant Life Cycle Data Management business from The Royal Burgh of Dingwall. Situated only 15 miles north west of Inverness in the Highlands of Scotland, Dingwall is a million miles from the traffic and fumes of the big city but is still connected to the whole world. Jealous? Possibly, but working in such beautiful surroundings is not without its challenges. Hi-CAD must still meet the tight timescales demanded by its ever growing portfolio of international clients such as Halliburton, BP, ABB, Texaco and Transco. And now, by investing in a CADWorx® Plant Design Solution supplied by Fern Computer Consultancy, the company has further strengthened its ability to provide a fast project turnaround.

### Reducing uncertainty, ambiguity and risk.

Hi-CAD was formed in 1988 to provide CAD services to the oil industry. Since then, the company has grown, with an office in Houston, Texas, and evolved into a leading supplier of design and drafting, laser scanning, imaging and risk management capability through Data Integrated Management Engineering Services and Digital Data Capture. This allows the creation of accurate and comprehensive 3D as-built plant models that can be integrated into the project design activities at an early stage, reducing uncertainty, ambiguity and risk. The company is built on the excellent industry and technical knowledge and project management skills of its highly professional staff.

### CADWorx comes out best.

Ronnie Lang is a CAD modeller at Hi-CAD and has been convinced of the benefits of 3D plant design for some years. In his experience, "Designing in 3D cuts down on the time spent producing drawings, so becoming more cost-effective. We can actually design pipe spools to 1mm accuracy, using our own company developed software, so that they fit first time. This saves downtime and reduces rectification. I have to say that I was sceptical until I saw

how well it worked. Once I had seen it for myself, I was converted!" However, the most recent project is different to most of those handled by Hi-CAD. It is fully 3D. Ronnie continues, "Our client wanted 3D models of 130 existing sites and we needed a plant design system to help us meet the timescale." The company looked at a number of solutions. According to Ronnie, "We already had AutoPLANT® and we looked at a number of other AutoCAD®-based products. We evaluated CADWorx and it came out as the best for the project."

### Saving design and checking time.

The company installed four seats of both CADWorx Plant and CADWorx P&ID in October 2001 and after a short period of training and familiarisation on two smaller projects, put it into full production. Ronnie Lang's initial impressions were good. He says, "We got our training from Fern, our CADWorx supplier. Fern's training was very thorough and gave us a good understanding of the products. Yes, it was user friendly and we found it quite easy to pick up. Anyone proficient in AutoCAD should be able to use it easily." Following the training, Ronnie and the team set about using CADWorx in earnest on the project. Has the software come up to expectations? In Ronnie's opinion, "...yes. It does what we want it to do. It is easy to make changes, too. For example, if you want to stretch a pipe in CADWorx, just click on it and stretch it. The system will automatically work out pipe lengths and so on, as you require them. It also updates the live database as well." Production of ISOs is rated by Ronnie as, "...quite easy, so saving design and checking time and giving you the bill of materials. The live database is very helpful. It gets built as you draw and cuts down on errors."

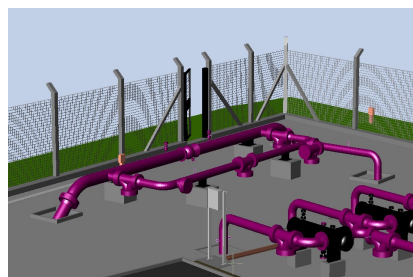
### Robust and resilient software.

According to Ronnie Lang, designing in CADWorx has been beneficial to Hi-CAD. He says, "When errors occur, everyone pays. But 3D takes away an awful lot of errors compared with designing in 2D, where you may have to draw something several times in different projections and views. When you do this

### Fast results

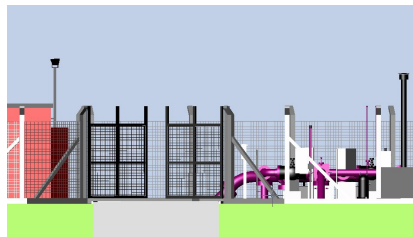


"...Our client wanted 3D models of 130 existing sites and we needed a plant design system to help us meet the timescale."



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### Right first time



"...Everything runs smoothly. You don't notice it's there. You just use it."

from the 3D model you only have to do it once, so reducing the risk of errors. With 3D, there is also less checking time before the drawings land on the client's desk." The software has proven to be robust and resilient. In Ronnie's experience, "Crash recovery is good. You can regenerate a database from what you have got and you can audit it from within AutoCAD. You are soon back to where you were if something goes wrong."

#### CADWorx first.

Hi-CAD is satisfied with the relationship that they have built up with Fern. Ronnie Lang again, "If we have any problems, they are very quick to get the answers. They do know their stuff." He also has this advice for others looking to implement a plant design solution. "Evaluate CADWorx first," he says, "and then reduce the learning curve by investing in as much training as you can." CADWorx has certainly proved its value to Hi-CAD. Ronnie Lang says, "You become dependent upon it. Everything runs smoothly. You don't notice it's there. You just use it."

#### Thorough training provides measurable results



"...Fern's training was very thorough and gave us a good understanding of the products."



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