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In common with many other design consultancies, Cudd Bentley's first steps into BIM came about as a result of client pressure, but four years on they are keen proponents and continue to espouse its benefits.

"To be honest, back then we were happy enough with the performance of AutoCAD" says Carl Withers, Cudd Bentley's CAD and BIM manager, "but we knew from conversations with clients that the move to BIM based projects was gaining momentum, and we felt it was critical to the business to remain ahead of client needs. This echoed what we were being advised at the time by our Autodesk partner, Cadline, who were convincing us that Revit would enable us to get to where we felt we needed to be.

With a track record in consultancy going back almost thirty years, and a significant client list ranging in market sectors from retail and hotels to schools and healthcare, Cudd Bentley offer class leading design services focusing on mechanical, electrical sectors and sustainability.

They had seen the evolution in the design environment over that time, and were open minded about relevant change, but cautious, as Withers explains. "We'd jumped at taking AutoCAD MEP on the basis of prospective projects that did not materialise, and consequently much of the functionality the licences offered sat largely idle, but by the time the BIM and Revit decision came around our relationship with Cadline was a strong

one. Not only were we able to assess what the market and our clients were voicing, but we could discuss this openly with Cadline, and draw on their experiences in the market more generally".

Withers freely admits that this relationship was crucial in the decision making process. "We clearly did not want to be in a position where we would not be able to work on projects where Revit and BIM based data was a prerequisite, so the motivation to get involved with Revit was strong, but I had not appreciated the benefits to our operation and processes that Revit could bring. Cadline spent time making these benefits - time saving, cost saving and increased efficiency in working practices - clear to us, which made a pretty hefty investment decision much easier".

The implementation of Revit went as smoothly as these things can in a busy design environment, and the benefits began to materialise. On the basis of this and the relationship with Cadline, Withers was open minded when they suggested investigating Cymap and TAS to work alongside the Revit MEP product. Withers recalls, "Some of the initial reluctance we faced internally was because of the greater demand for engineer information when creating



Solution Overview

Client Profile

Cudd Bentley offer class leading design services focusing on mechanical, electrical sectors and sustainability.

With a significant client list ranging in market sectors from retail and hotels to schools and healthcare, supported by a track record in consultancy going back almost thirty years.

Business Goals & Challenges

- Deliver BIM capability
- Meet clients changing needs
- Reduce costs in working practices

The Results

- BIM project practices and skills
- Additional time and cost savings
- Increase project efficiency
- Enabling engineers to become more involved with the design

Summary of Technology & Services Delivered

- Autodesk Revit MEP
- Cadline Tas Engineering
- Cadline Cymap M&E
- Cadline BIM Implementation & Training services









CASE STUDY: Cudd Bentley Consulting

models in Revit, rather than 2D data in AutoCAD - it simply takes longer to gather and input the initial design data.

It was clear as soon as we saw Cymap and TAS that the links from the products to Revit were so good, that it would enable engineers to become more closely involved in the design process. Rather than them handing designs as paper drawings and the cad team starting again, they could begin the design digitally allowing the cad team to continue the development of project. Similarly, because sustainability is so fundamental to us, the links with TAS offer significant time and cost saving potential. So although Revit may be more demanding initially, this way of working with the inclusion of the engineer not only enhances the validity of the data, but also speeds up the whole design process".

"We still have some resistance" he adds, patiently, "because some of the practices are working deeply entrenched, but that's to be expected". In other areas the acceptance has been more immediate "To show design intent we use Navisworks Freedom which was quickly adopted by the engineers, simply because it allows them to see the Revit model and show clients professional looking walkthroughs. They love it! And when a prospective client asks us what our Revit capabilities are, we can use it to convince them. There's a real wow factor"

Cudd Bentley have now been involved in a number of prestigious projects using Revit MEP, and Withers is brutally honest about their BIM capabilities. "Every project that comes through the door asks for Revit data as the deliverable, but a few simple questions of the clients quickly ascertains whether they genuinely want or need BIM, and in our experience to date they generally don't. What they want is Revit to be used to coordinate and



collaborate, which it's brilliant at doing, of course, so that's what we do. I still don't think we've done what we would class as a BIM project in its truest sense. But when we are asked to do so, we'll be comfortable in our capabilities, based on the experiences we've gained from the projects we've handled over the recent years".

The design team is migrating continually to Revit based working processes as they match pace with this demand. "We base much of our policy making on what we pick up from client conversations", Withers continues, "but we are also very close to Cadline. They keep us abreast of relevant technology -for example, we're now looking at Autodesk Vault to take control of our drawing management, again at their recommendation, which will help us comply with PAS 1192 regulations. They share ideas around best practice in the M&E sector, we use them for supply of the Revit MEP, advice on hardware, training, technical support, and often just as a sounding board. We know a broad group of their team and I feel they've made my job of implementing BIM through the business much easier. I can't speak highly enough of them".

For the future Withers is confident in the path Cudd Bentley are taking. "We're awaiting that first full - on BIM project, we know we're capable, and that we have everything we need in place, and if we didn't feel that way, we'd speak to Cadline to establish what we need to do. We're just waiting for that project where the demands of the client meet our expectations of BIM. There are half a dozen projects in the schedule, we're ready for it to be any one of those".









About Cadline

Cadline Ltd is thrilled to have reached a landmark anniversary of 25 years and would like to take this opportunity to thank you for your business, continued support and loyalty.

We opened the doors in 1990 with 3 members of staff in Staines and today we are proud to have nearly 100 staff in 8 UK and 2 European locations with our Head Office now in Staines-Upon-Thames! We have seen many changes over the years but what has remained consistent is our passion for technological innovation and our commitment to customer service. We have enjoyed the journey so far and look forward to the next 25 years.

Cadline is a Platinum Awarded Autodesk Partner specialising in the supply of innovative design and data management technologies to Architectural, Engineering, Construction, Manufacturing, Process and Plant and Structural engineering professionals. We are market leaders in the delivery of associated project training, consultancy, business integration and professional services.



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