## Irish Building\* Saturday, 1 April 2017

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Circulation: 4500
Area of Clip: 137000mm²

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## Happy Birthday, ArcDox!

ArcDox, Ireland's leading BIM consultancy practice celebrate their 8th year in business this March 2017. Irish building magazine caught up with their managing partner, Ralph Montague, to talk about their journey so far.



Many companies in Ireland are only now starting their BIM journey – What made you set up a business that specialises in BIM 8

My business partner, Pat Slattery, and I are from an architectural background. We were associates working for one of the largest commercial architectural practices in Dublin at the time. We had begun to use BIM in our own projects, for the more efficient production of information (or lonely BIM, as they call it). Our research showed that BIM was going to be the future of construction - it was the disruptive "digitisation" of the construction industry that has impacted so many other industries. We recognised that people were going to need help with this. The recession forced us to think about what type of business we wanted to create. We decided we didn't want to compete with other architects, but we wanted to offer our skills and knowledge, as a unique service, which would enable and support project teams, to leverage this new technology. In other words, to work with clients, architects, engineers, contractors, etc., rather than be in competition with them. Pat and I have worked in the industry for over 25 years. We are passionate about construction, we are very interested in improving the way

construction works, we are excited about being at the forefront of technology for construction, and we are enthusiastic about sharing what we learn with others, to help bring better outcomes for projects. The best way for us to do this was to become "partners" rather than "competitors" with project teams. That is why we set up ArcDox as a BIM consultancy practice. A service to provide advice, resources, training and support, without competing with other architects, engineers, contractors' core functions. I think it was a good approach for us. Fortunately, we have grown, through probably the worst period for construction in Ireland, from the two of us sitting at my dining room table 8 years ago, to a well-established practice, advising some of the most important projects in Ireland, and helping to lead Ireland's development of BIM.

## What would you say to a small business or other young company, just starting out on their BIM journey?

I'd say to small or young business owners, "you have one thing that big business doesn't have, and that is the ability to make a quick decision, and to set, or completely change, the direction of your company, almost immediately".

Initiating, instigating, or promoting "change"

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within a big, or long established business, is very difficult. When Pat and I started ArcDox, we made two very quick decisions, (1) We were never going to use 2D CAD again, and (2) we were not going to use "paper-based" processes. In fact, 8 years ago, we decided not to buy a fax machine or a plotter. If people wanted printed 2D drawings, they could print it themselves. Obviously, it was easy for us to make those decisions, when it was just the two of us, but those two decisions alone, have saved us huge amounts of time and money over the last 8 years (ask anyone who maintains a traditional 2D CAD production team, or a large format printing facility). Small or young companies, have the ability, to grasp emerging technologies far easier and quicker than large businesses, and impact how the industry is working. They have the opportunity, to leverage these changes to become super-productive, and therefore able to compete with the larger players. Being small and agile is a good thing. My favourite quote from Darwin, "...it is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to change..." To me, this says that if you are small, and willing to change, you have a better chance, compared to big companies who refuse

> "Technology opens up the construction industry to so many more people - it is not just about muddy boots and brawn anymore."

You seem to be involved in many industry committees and groups in relation to BIM in Ireland, including the National BIM Council, the National Standards Authority of Ireland (NSAI), the Royal Institute of the Architects of Ireland (RIAI), the Construction IT Alliance (CitA). Why do you do all this voluntary work?

Because of our specialisation, and our long history with BIM, we have been asked by various organisations to participate in groups or committees that are investigating BIM. We are happy to do this, because "at the end of the day" we want to work in, and provide services into, a modernised, digitised, open and inclusive, construction industry. That is the type of industry we see our business thriving in. We want to see the end of wasteful, cumbersome, costly, paper-based processes - these are just not relevant in the digital technology age we live in. Technology opens up the construction industry to so many more people - it is not just about "muddy boots and brawn" anymore. Participation in these groups, who want change, and who embrace technology, helps us to contribute to a new type of industry, and it allows us to connect with like-minded people. We are excited and willing to share what we know and have



learned with others, to help bring the industry along its transition into the digital age. And we are privileged to be part of this transition.

ArcDox are obviously "forward thinking" in their approach. The fact that you started this BIM journey many years before it was popular, or talked about, attests to that fact. What thoughts do you have about the future of construction? Where is this all going?

At the moment, BIM technology is still predominately being used as a more efficient way to produce "documents", which ultimately get printed out as contract records, or as a way of sharing information. Many of the business processes in the construction industry are still based on these traditional paper-based documents and workflows. But the big shift that is coming is a move away from "paper to data", where people no longer rely on printed documents, but in the exchange and collaboration around digital data. This will be "game-changing", but I'm not sure how long it will take. If you had asked me 8 years ago how long it would take for the industry to adopt BIM, I would have said it would only be a couple of years. But here we are, 8 years later, and the industry is still predominantly using out-dated paper-based processes, even though this technology has been around for over 20 years. However, through my work in the

various groups and committees, I'm seeing a real positive interest in how "technology" can begin to alleviate some of the wasteful and cumbersome "paper-based" workflows that exist between planning, design, building control, construction and operations of built infrastructure. People are beginning to look outside their "silos" and starting to appreciate the enormous efficiency, or productivity benefits that may arise, if everyone shared good quality, structured "data" through the lifecycle of the project, rather than static "paper documents". When we start working with "data" instead of "paper", it opens the opportunity for so many more related technologies and disciplines to get involved with the construction industry (data capture, data analytics, machine learning, artificial intelligence, virtual reality, augmented reality, digital fabrication, robots, drones, etc.). There are so many potential new roles and jobs in construction which don't even exists at the moment, and the great thing is these roles don't require "men with muddy boots or brawn" these can be fulfilled by a much more diverse group of people. We will begin to see construction attracting some of the best intellectual talent in data science and related technologies. It is a good time to be in construction in my opinion.

