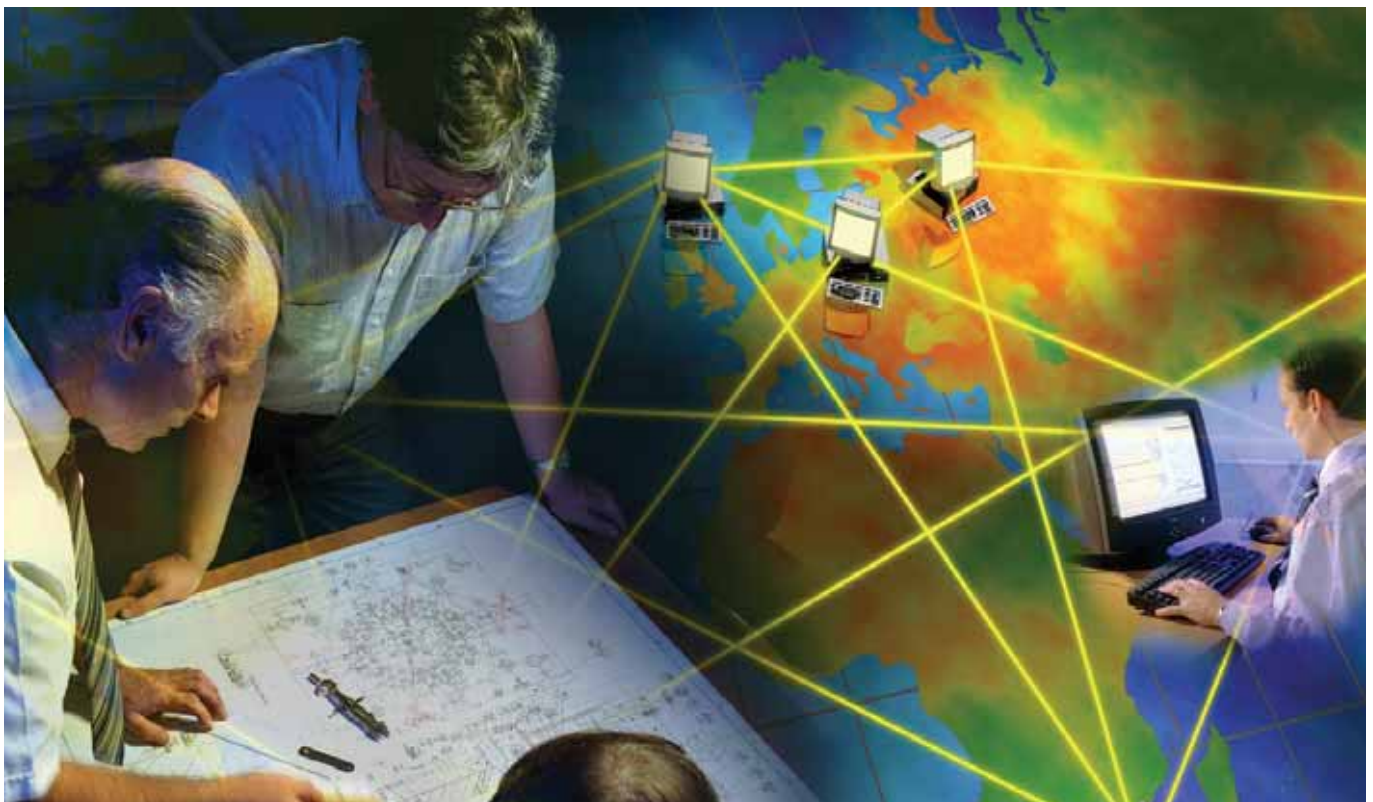


Buzzsaw - Sharpen up your lines of communication

Collaboration is essential to the construction industry - but how can we do it more effectively

By Russ Monroe, Business Consultant, Excitech Computers Ltd.



The construction industry is, in some ways, unlike any other. On each project a myriad of companies may be participating with differing levels of involvement at different stages. Communication between all these parties is, therefore, not just important but critical to its completion on time, on budget and to a high quality. In this article Russ Monroe reviews the way communication can be improved into true collaboration.

For many practices - be they architectural, engineering or supply chain - e-mail has been considered as collaborative working. However, in reality the reliance on e-mail as a communication and sharing tool is perhaps becoming counter productive. E-mail is just one facet of a much larger communications jewel; the jewel being "collaboration of ideas and designs".

Throughout this journal you will find solutions and products that will make your design process easier, more cost effective and sophisticated; you'll see ways in which

you can enhance the work you currently carry out and ways that you can compliment the designs that you prepare. And you will be able to conceptualise, design, detail and build from the CAD solutions shown. But why do you draw and describe your designs in the first place?

The answer is, of course, simple; it is to convey and communicate your ideas, your experiences and your vision to your clients and partners throughout the construction life cycle. The key word here is "communicate", without which your drawings are

simply only a record of your work for your own consumption. Clearly this is not the case and we rely on a number of communication routes and paths every day of our lives from the accursed mobile phone to good ol' Mr Postman.

But all of our existing communication devices lack something that we all demand, trackability, accountability and flexibility.

Let's take a brief moment to recap on the ways with which we communicate.

- Post
- Courier (bike or van)
- E-mail
- FTP sites
- Telephone
- Fax
- Group discussions
- Site meetings

And maybe one or two that I have missed. Each one of these has an associated cost- and a fairly substantial cost at that. Here are the costs that we probably take for granted.

- Postage
- Courier fees
- Line rental
- ISP fees
- Telephone service supplier
- Travel costs
- Printing & plotting
- Reprographic & admin staff
- Packaging

Add these up on a monthly basis and the overhead soon mounts up. Consider for a moment what all of these methods of communication ultimately mean to the project that you are trying to advance; this is collaboration, except much of the data and media issued is only used once.

Rather than being shared and reused drawing issues are "thrown over the wall" used and dumped ready for the next issue. This is an immensely wasteful process and potentially damaging to the project - and indeed to the environment too.

Check-plots, mark-ups, drawing re-issues, incorrect revisions, and site meetings all generate waste and delays. One check-plot is never enough! The whole checking and amending process is iterative, sending an out-of-date revision to site causes untold problems and knowing if your client has received your latest release relies on his acknowledgement and good ol' Mr Postman (electronic or snail mail).

Let's Collaborate!

Let's be brutally honest and list a few of the real pains that we go through to get drawings out to site or in fact to a point at which they are ready to be sent. In doing this we'll see that any number of collaboration tools are available to use; with each having its pros and cons. I'll let the journalists of magazines such as "Building" and "CAD User" make the feature comparisons whilst journals such as the "RIBA Journal" (Nov 2002) identify the benefits of Buzzsaw for Architects.

What we can do here is to identify why you should use a collaboration tool in the first place. Let's make it clear that we are

not talking EDM (Electronic Document Management) for that's a different need completely though a natural extension to collaboration.

You need a collaboration tool if...

- You distribute multiple copies of your drawings at each revision stage.
- You see value in tracking and recording document transmittals.
- You waste time by reacting to client's demands for more copies.
- You are frustrated by e-mails shortcomings on size and speed.
- Your clients tell you they can't open DWG, PDF, and DWF because they don't have "CAD".
- You have a stack of check-plots under your desk.
- You sometimes forget to send the schedules with the drawings.
- You aren't sure that your clients have received your documents.
- You don't really trust courier or postal services.
- You make too many site visits.
- You want to make others accountable for their use of the design data.

You'd be doing better if...

- Latest drawing versions were readily available to all.
- Transmittal slips were automatically returned, every time!
- You weren't answering phone calls and e-mails for more copies of some drawings each day.
- You knew that your data was legible to all.
- You knew who, what, when and how data was taken and received.
- Everyone turned up to meetings with the latest documents.
- You saved a considerable amount of money by reducing reprographics!
- The onus was on the client to collect the data.

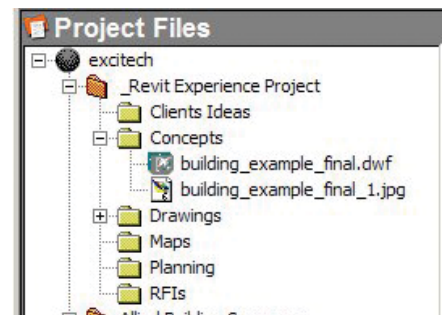
Collaboration software/services solves many of these problems - and maybe even more - by building a "library" of documents and managing their access as well as the process that flows around them.

Getting Started!

Let's start by placing our CAD Standards, H&S document, Project Brief, LA documents, Project time line, Contact List, to name but a few in the "public" vault of our Buzzsaw site, now we can be sure all participants "play to the same rules".

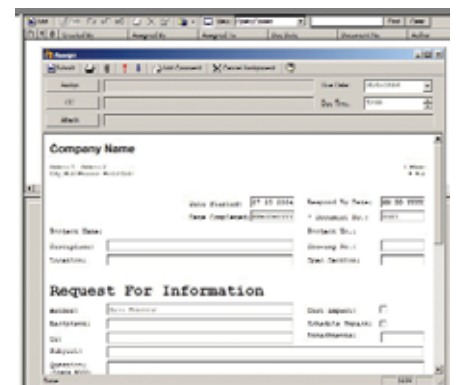
All of this had better be easy and efficient! Well of course Buzzsaw is loaded with features and all extremely applicable to Autodesk software users and is designed with our industry's workflow in mind.

For example, the Explorer browser interface is familiar and friendly, uploading is as simple as drag and drop, opening documents to view only requires a mouse click.



Audit trails and transmittals are readily available. And above all, your recipient does not need Buzzsaw to get started it is delivered to them free via e-mail when you invite a client to have access to your project vault.

In the Professional version of Buzzsaw you can create forms that suit you and manage the transmittal workflow in much the same way as your slower and less efficient manual way but with the speed and efficiency of Buzzsaw, so no massive cultural changes here!



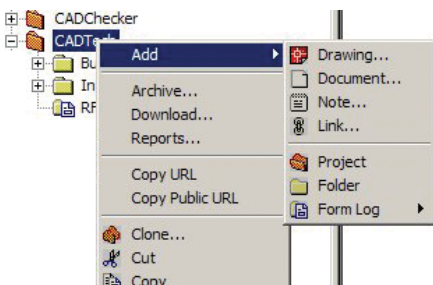
You will see from the screen captures the ease with which audit tracking can be set up and the marvellous way in which

previous versions of the same drawing (or document) can be viewed and even RED-LINED retrospectively.



Installing Buzzsaw from the outset is as simple as installing minor utilities and is completed in minutes, you will of course need an Internet connection and an e-mail provider; a fast connection like ADSL is wise but not essential. Data transfer speed is a function of your connection not really of Buzzsaw.

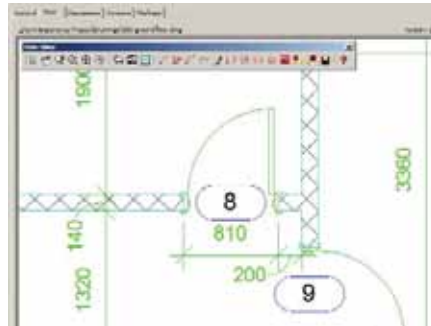
Once installed you can begin creating projects and folders and then invite other team members to have access to these projects by sending a simple e-mail.



You would also set permissions and allocate user levels as being the site administrator, though you can also delegate this.



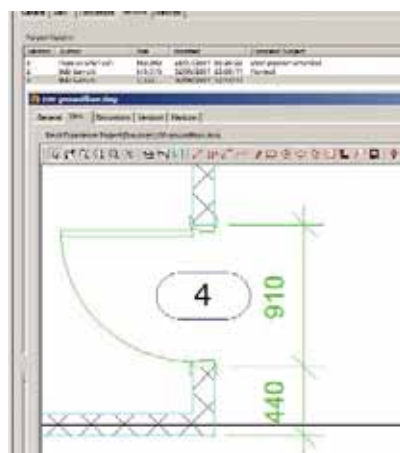
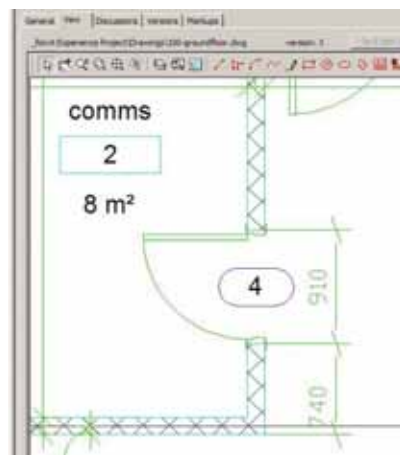
I went through the process of making e-mail notifications live and then opened a sample drawing to view and redline. At this point I decided that I'd rather edit the drawing so I downloaded it and opened the DWG in another CAD package, made some changes (relocated a door) and then put the drawing back into the Buzzsaw vault.



It reminded me that there was one of the same name already there and I was offered the revision dialogue box where I added a description of my changes and then uploaded the file.



Seconds later my e-mail alarm beeped to tell me that a new e-mail had arrived where I was informed that a new version of 100-Groundfloor.dwg was available



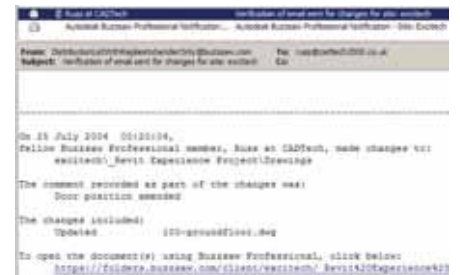
Item Name: 100-groundfloor.dwg

Action: Update Object

By: Russ at Excitech

Time: Sun, 25 Jul 2004 00:20:23

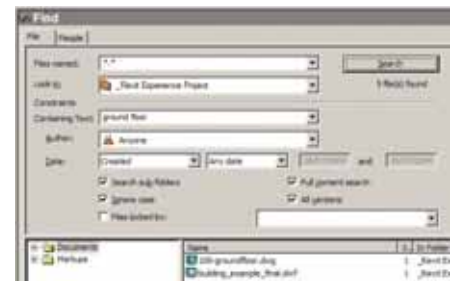
A similar email would have gone to any other parties that I had previously nominated as needing to know of changes in this project.



There is also a powerful search facility that will let you scan projects for drawings and virtually any other document that contains key words. In the image, you can see that I simply searched for "ground floor" contained in any document, the results show both the dwg and dwf documents of the ground floor drawing.

I could discuss the technicalities of Buzzsaw but there is no point; it does, as they say "exactly what it says on the box"! There is right click mouse content and a "what's this" context sensitive help feature, so no one can get lost or stuck; the learning curve is remarkably short!

I resist the urge to say "ha ha! Just like that" in a Tommy Cooper voice!



Little Costs Adding Up

It makes sense to be able to accurately include into the project costs the transmittals of drawings and other documents and hence reduce the overhead that so often goes un-measured and un-monitored.

Let's assume that the average project value is £500,000. How many projects do

you have on the go at any one time? Five? Ten? In that case a mere £45 to £90 per project per month gives you this facility. Then this expenditure accounts for as little as 1% of the project cost over a typical project life span of 12 months.

Buzzsaw Professional, with the full set of workflow, reporting and management features can be yours for less than £450 per month. But you can start off with Buzzsaw for less than £150 per month and see how even the standard product can dramatically improve your communication and collaboration while substantially reducing other costs.

John Low of KSS Design Group says...

An unexpected benefit of using Buzzsaw for one recent project was that it helped work flow and continuity. It can be a daily nuisance to stop to answer the phones or reply to emails only to be asked to issue several drawings to several parties. We found that when a drawing was ready for distribution we would upload it onto the Buzzsaw site and let the design team know of its availability via email.

When revision A was superseded by revision B we replaced it. Later, if a party required a full set of GA's for instance

they would simply download the required DWF's or plot files from the buzzsaw site instead of calling us. As long as all parties had been issued with the relevant security level passwords, and we were happy that we had done our housework, it saved us time if they helped themselves.

Because we could interrogate all site activity, such as who accessed or downloaded which files and when we could easily obtain reports which we found could replace drawing issue sheets.

For a large project with many drawings we would have to consider the cost of space before adopting this process of course but there were clear benefits when the whole design team got the hang of this working method.

Collaboration starts at home, will you lead or be led?

Using Buzzsaw in your own office amongst your design team to speed up checking and conveying ideas, reducing hardcopy drawings, allowing all team members CAD and non-CAD access to visuals, tracking and recording transmittals will derive an efficiency gain and a cost saving. When you then offer this to clients

and other companies working on the same project you will gain even more. Taking the lead can have tremendous benefits as you illustrate just how efficient you can be.

And this does not stop you using a client-lead collaboration package as well but your experience in such matters may give you the edge.

Is collaboration a new thing?

As geese flap their wings, they create uplift for the bird following. By flying in a "V" formation, the whole flock adds 71% greater flying range than if any bird were to fly alone. Whenever a goose falls out of formation, it suddenly feels the drag and resistance of trying to fly alone, and quickly gets back into formation to take advantage of the lifting power of the bird immediately in front. So with Buzzsaw once you and your associates commence real collaboration the benefits will be clear. It is not just collaboration between projects and between people. It's collaboration with a wealth of file formats plus, because Buzzsaw comes from Autodesk, it collaborates even better with Autodesk files and references, be they Xrefs, DWG or DWF files.

▶ MORE INFO 3408 see inside back cover



Autodesk Buzzsaw

Powered by Autodesk ProjectPoint technology, Buzzsaw enables the collaboration, distribution and centralised management of all project-related documents, drawings and notifications during all phases of the building life cycle.

For more information on Autodesk Buzzsaw, please call Excitech on 020 8804 9942