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### In the field Data Capture – iPads

by Glenn Hughes

I'm not really a gadget man. I've found it hard to beat a pen and bit of paper when it comes to capturing the general tumbleweeds of potentially useful information I feel the need to record. I have made no secret of the fact that I have used for a long time, a child's school workbook to act as the receptacle for all my important doodles, scribbles and general day to day mental ramblings. In a failed attempt at humour I have even altered the '1B5' on the front of said book to read 'iB5, so I can say that it's my new iPad, (Version B5)!

So why have I got both an iPhone and an iPad sitting next to me now? It all started with the iPhone. Up until recently my mobile phone, which still felt new to me, generated chortles from helpful shop assistants when I placed it on top of their shop counters. I clearly needed a new one and decided to see what all the fuss was about with these new iPhones.

I quickly got used to the iPhone's nifty zoom and navigate around the screen features. You know something is nifty if you carry on performing the operation for a long time after it served any practical use. That's how zooming in and moving about a screen is with an iPhone. Gliding your finger over the screen moves you around the application you're in, and the flick of your thumb and forefinger zooms you in making it easier to see what's going on, or to enter data if your fingers have cousins who are sausages. That's just the start of the niftiness with these iPhones. Before you know it you'll be accessing your e-mails from anywhere, looking at the latest news or YouTube clips, checking which way is north all the time (it has a compass built in), and asking it to pinpoint your position on the map using its GPS features (even though you already knew where you were!).

I took my crew out for lunch a few months ago. Our young gun IT guru was with us and when an incoming call suggested we had to make a change to one of our hosted databases, he said... 'hang on'... and with tongue positioned for maximum concentration he tapped away on his own iPhone for a few minutes and announced "there... I've logged into that hosted ValBiz (one of the Software Products Headway produces and markets) and have made that change". We were somewhat taken aback. "You can access that ValBiz software application on our hosted server from your iPhone?". "Yep", came the reply – "If you know all the correct passwords and computer addresses". On his screen was the ValBiz application in question, exactly as we would see it on a desktop, only obviously, much smaller.

So if we could access our database(s) in a hosted environment from an iPhone... then surely we could access it from its larger relation, the iPad. As they use the same operating platforms that turned out to be correct. Now this was starting to get exciting.

You see I'm a big fan of capturing information once and once only, and then using it many times. That's a business process fundamental that has been driven into me from my earliest involvement with IT. Certainly in the earlier days it was more of an aspiration than a reality, as integration between different software packages used to manage different bits of a business were expensive

projects in themselves. Now that requirement is the cornerstone of any business enterprise software package worth its salt.

All this makes me a big fan of 'in the field data capture' for my valuer customers. The hardware to do this has been around for ages. We have all seen them in action, be it signing for a delivered parcel, having your electricity meter read or having a youngster take your McDonalds order whilst you are still standing in the queue.

So why aren't NZ property valuers using them? Well a handful are, but it's a drop in the ocean really. First of all not all valuers have a robust database application to save the data captured into. Secondly, the in the field data capture hardware traditionally has not been cheap, and thirdly someone has to spend time, effort and money on developing the software that will enable your in the field data capture kit to talk to your database. Another barrier was the ergonomics of the devices. You need to be able to hold it with one hand and easily perform all the data capturing functions with the other. I'm reminded of the story about how, in the 1960's, NASA spent millions of dollars on developing an ink pen that would work in zero gravity conditions, whereas the Russians pragmatically decided to use a pencil. Give most technical types a problem to solve and they'll come up with a solution for you alright, however, there is no guarantee it will be one that makes any commercial sense to roll out.

A project had been undertaken by our Company several years ago which allowed valuers to capture data on the then state of the art PDA's. These were the cheapest in the field data capture options available at the time and were retailing for about \$3,000 each, (twice the price of your average pc back then). Our company spent quite a bit of cash building the software that integrated them with our database products. As it turned out, simply no-one seemed to be prepared to pay \$3,000 for a PDA – they all had pencils it seems.

So you can imagine that this influenced our future path forward. Other firms have since arrived on the scene touting state of the art software and data capture applications, but none really seem to have got over the perceived cost/benefit hurdle, and have ever got any traction here in New Zealand.

So where does that leave us for in the field data capture devices? Should our company have another expensive crack at supplying the hardware and software when there is no guarantee that the same thing won't happen again?

Well if nothing had changed I'd be pretty skeptical about repeating our historic approach; technology and Apple, however, have delivered the solution for us in the shape of the iPad. We now have access to an ergonomic device that can sensibly be used in the field to capture data into an existing hosted database (one you are probably already familiar with), without the need to build a tub of expensive integration software. So for about \$1,200 you can get yourself a tool that not only allows you to get a head start through at least capturing some of your inspection data on site, but it also allows you to do all those other things we have now almost all become dependent on, such as using e-mail and accessing the internet.

When we first trialed this approach with the iPad1 we thought 'this is fantastic', a one stop shop to do everything. You can show a lot of information and the input controls are tailored for fingers so it all felt really good to use. All went well until we went to take a photo of the property... enter the iPad2, now with built in camera. Another revelation is that there are speech recognition 'apps' available to download onto the iPad. The hiccup is that, as I write, they are still only available to download in the US, but it won't be very long until they are made available here as well. We have built into our software the capability such that when it is available here, you will be able to dictate straight into the correct position on your report template in ValBiz whilst you are inspecting.

So now that someone else has sorted out the in the field data capture hardware and integration software for us (cheers Steve Jobs), we were able to focus our own development spend on making sure that the software the iPad will be remotely accessing was easy to use and very flexible (which is tricky), and as useful and complete as possible. For the record this included the introduction of a type of 'Wizard' that allows you to step yourself through or jump to different sections of your report to fill in, access to a personalised library of commonly used comments and the ability to then pass the report into a Word document format for final tidying up and editing.

When we first considered in the field data capture and its bedfellow for valuers, the automatic generation of a formatted report, we aimed high. We started with the objective of getting 100% of all data required captured on site and delivered to a single predefined industry standard report template (signed off by the professional body), which could then be e-mailed directly to the customer along with their invoice. All this undertaken whilst still at the inspection site.

It's uncanny that the WW2 movie 'A Bridge too Far' was on television last night. The approach mentioned above was, I think, a bridge too far for most valuers to contemplate. "I like to sleep on my reports" was the default answer when presented with the 'all in one' approach. It's hard for me not to imagine a princess and the pea type scenario. If the report, (figuratively tucked under the mattress of the sleeping valuer) is a bad one, the valuer tosses and turns and can't get a good night's sleep! I can understand that, but you don't HAVE to send out your reports from the site, you CAN still sleep on them and fire them off in the morning if that suits how you like to operate. And for clarity, no I do not think valuers are a bunch of princesses.

Well I've heard it said that the most revolutionary new inventions or ideas do not come from 'Eureka' moments, but are instead the modification of early ideas or concepts whose make up or timing were not quite right. So given that no exorbitant hardware or software costs are now needed to capture your data in the field when using an iPad, it is surely not a step too far for valuers to consider capturing at least some of their onsite inspection information whilst in the field. Would having even 80% of your report already filled in by the time you get back to the office make a difference to your practice? Have a think about it.

So what are the risks and are there any downsides? Security of data has been brought up as a possible risk. This is only a risk if you make it one. If your database is password protected your data is as safe as it always was, that is of course, as long as you choose to use a password.

So how robust are these iPads? Only time will really tell however I did perform my own iPhone robustness test when I clumsily and accidentally drop kicked it across a concrete floor last week. To my relief it bounced around a bit and then acted as though nothing had happen.

iPhones and iPads can use any of the three mobile carriers (Telecom, Vodafone and 2°) and according to all of their marketing they all provide cover for *“97% of where all New Zealanders live, work or play”*.

I read in the ‘The Sunday Herald’ last weekend that the Queen was so impressed with the Princes’ iPads (sorry, I should say the Prince and the Duke now), that she ordered her staff to get her one immediately. If our very conservative 81 year old Head of State thinks they are worthwhile, and she doesn’t even need it for capturing data in the field (palace)... then it must be worth the effort of our country’s valuers to have a look into them as well.

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