Tony's Tales

Hi again. This Newsletter is a little late because I have been overseas for two months. Sorry the Bletchley Park article is a bit long but for Stuart Nicholson and me it was a memorable visit of both historic and engineering interest. We sincerely hope that you enjoy the article.

Obituary, Doug Dell

Sadly we have to report the death of Doug Dell who has been battling with cancer for a time. Roy Hemmingway, speaking at Doug's funeral said *"At our first meeting, Doug introduced himself by saying, "I'm Doug Dell. It's Doug. Don't call me Douglas, and don't try to get me to quit smoking."* That statement was characteristic of the directness and frankness that led Doug to waste no time in getting to the heart of a problem. (It also led to a couple of evacuations of our offices, when the smoke alarm went off in the toilets.) Doug has been a significant figure in the electricity industry and will be sadly missed. GridHeritage is pleased to have recently completed an oral recording of Doug's life.

GridHeritage museum software

GridHeritage has been operating a collection software system called PastPerfect for a number of years and while it has given excellent service it is difficult to setup and to use. We are currently investigating a web based system called eHive which is a simpler system developed in NZ and is based on a more complex Vernon system that is pretty much the standard among large collections. Have a look at our 'Start Page' which is very much under development.

http://ehive.com/account/4028

eHive has the advantages of being easier to use and being web based it can be accessed anywhere and by more than one person at a time.

Bletchley Park visit

Many of you may not have heard of Bletchley Park (about an hour out from London) and that is not because it isn't interesting, it is because it has been top secret for years and the story of the place is just coming to light now. Bletchley Park (known at the time as "Station X") was a top secret organisation during the war and the work they did is claimed to have shortened World War II by two years. It employed up to 9,000 staff who received scrambled or encrypted Morse broadcasts from the Germans and unscrambled them and then turned them into English. The messages were instructions from the German Command to their armies, navies and troops containing secret details on where to attack and the upcoming battle strategies. The Germans were confident that the messages were impossible to unscramble and had no idea that the British had secretly developed the equipment to decipher their secret codes.

The Enigma machine

The Germans used a sophisticated scrambling machine that utilised a different code every day. The Enigma machines were used both for sending the messages and had to be synchronised each day to the new code. There were literally thousands of

millions of methods of encoding that were changed at both the receiving and sending machines each day. To make it even more complex, when each letter was sent the code also changed in a predetermined way to a new code. It was a mathematical nightmare to sort out but sort it out is what Bletchley Park did. Every day they would intercept the Morse code messages, apply their logic to what they received and finally master the encoded messages each day using a machine called the Bombe.

Stuart Nicholson and Tony at the Bombe

These interceptions were then sent onto the English military who used this information to understand and to counter the German attacks. Messages from Bletchley Park were given the name 'Ultra' by Winston Churchill and they were accepted as gospel, even though most of the senior British command had no idea of Bletchley Park, nor where the messages came from. It was that secret. Churchill called the code-breakers his "geese that laid the golden eggs, and never cackled"!
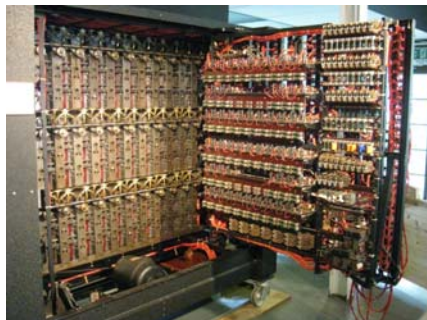
The back of the Bombe

Later in the war the Germans used a more complex encoding machine for conversations between Hitler and his cohorts, this was called Lorenz and was even more complex than the Enigma system. To decode this Bletchley Park built the very first electronic computing machine called Colossus.

Colossus at Bletchley Park

This is what Tony really wanted to see. Colossus contained some two thousand five hundred valves and for its day it was fast. Even with Colossus it took around 10 hours to decipher the daily code, and this was done each day.

At the end of the war orders were given to destroy all of the equipment at Bletchley Park and this included Colossus. It was seen as such a security threat. They also destroyed the drawings for the machines. It wasn't until the last few years that a few of the original technicians got together, found old drafts and parts of the drawings and set about rebuilding a Colossus. This huge task has recently been completed, having taken some 3 years, and Colossus is now in service most days. It is so complex and has so many valves that it is almost impossible to start up normally without blowing a valve. They now get around this by starting them with a low voltage and slowly bringing the machine up to normal voltage, thus reducing the shock of a normal start-up, and the same (in reverse) when powering down.

Bletchley Park complex is a number of tired outbuildings spread around a

rather grand central mansion. Time has taken its toll on the place and its secrecy meant that up until recently few knew the importance of the place. Only now is funding being given to restore the whole place and the Queen visited it last month which has really put it into the public eye. The day we were there they apparently had their highest number of visitors ever. Such is the power of the Queen.

Close up of Colossus

We had a great tour around the place and then did our own looking around. The Park also houses the National Museum of Computing which has a great collection. We even got to touch a Digital PDP 11/70 and some of you will know all about that as it was the heart of many engineering systems and SCADA control systems. Various huts on the site now also house many exhibitions including a few vintage vehicles, radio and telegraphy equipment, a huge collection of Churchill memorabilia, and local clubs also use space in the grounds, e.g. model railways and model boats. There is also an old style post office which is still operational, and of course the Bletchley Park postmark is a collector's item.

The recent park publicity has meant that Bletchley has just received a large grant from the Lotteries Commission and Google has also put funding into the Museum of Computing. Google has also used its Street Map cameras on a small cart and has photographed all of the grounds and inside some of the buildings. This is expected to be put on-line shortly. Our visit was a truly memorable day.

GridHeritage document storage

For years GridHeritage has focussed on storing and cataloguing our physical assets while our vast collection of documents and photographs have been simply stored in an air-conditioned environment.

For the past few months we have employed an expert to finally make some sense out of our document collection. Work is now underway to properly catalogue the documents and then to store them in archival quality storage boxes. This is a slow process but when completed it should enable clients to search for any document online. Photos will also be stored into inert protective sleeves and stored in groups for ease of searching.

Hopefully when this work is completed it will make it easier to find information on early workplaces and people.

Visit to Bunnythorpe

We are planning another of our regular visits to Bunnythorpe to work on our collection. This time we expect to make progress in moving gear from our temporary A Shed into our more permanent E Shed. To do this each item must be photographed and then catalogued into our PastPerfect database. This has proved to be a huge and time consuming job but it is really worth the effort as it will then make everything in the collection accessible from the Internet.

Hopefully our possible change to a replacement for PastPerfect will make this work even easier in the future.

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