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Datamodes In The Shack With The Ed

Last month, I looked briefly at the many features of *PlanePlotter* and I'd intended following up on some of the areas I had insufficient space to cover. Unfortunately, I've been prevented from being able to spend enough time getting to grips with those areas of the program to present the additional features to you, so I'll get back to *PlanePlotter* in more detail next month.

A Useful Tool

I have been using the *RadioControl* software from SysLabs in Austria, as covered in November's *MM*, extensively over the past month. Mainly from the *Monitoring Monthly* offices, to remotely tuned radios in my shack so that I can keep an ear and an eye on various activity.

This has been possible due to my use of Virtual Network Connection (VNC), a very handy concept that allows you to operate a remote PC with the keyboard and mouse of your local one, this display of the remote PC is also presented in a window on your local PC. I have been using VNC for a few years now and it's one of those things that once you've used it, you really wonder how on earth you actually managed without. VNC has been around for some time and it really is a useful accessory if you happen to have two or more PCs on a network. There are several sources of Server and Client software that are need to make a VNC connection. They all use the same protocol, so you can mix the different versions. My own preferred version *RealVNC* can be found at www.realvnc.com This is my choice for *Windows* PCs, because this supplier has a version, in addition to the freeware one, that includes encryption - important, for connections outside of your own network. Another popular version is *Tight VNC* from www.tightvnc.com There are others available for the PC and yet more for other operating systems. Many *Linux* distributions bundle VNC servers and clients in their distribution. The *MM* offices server that runs *Red Hat* certainly

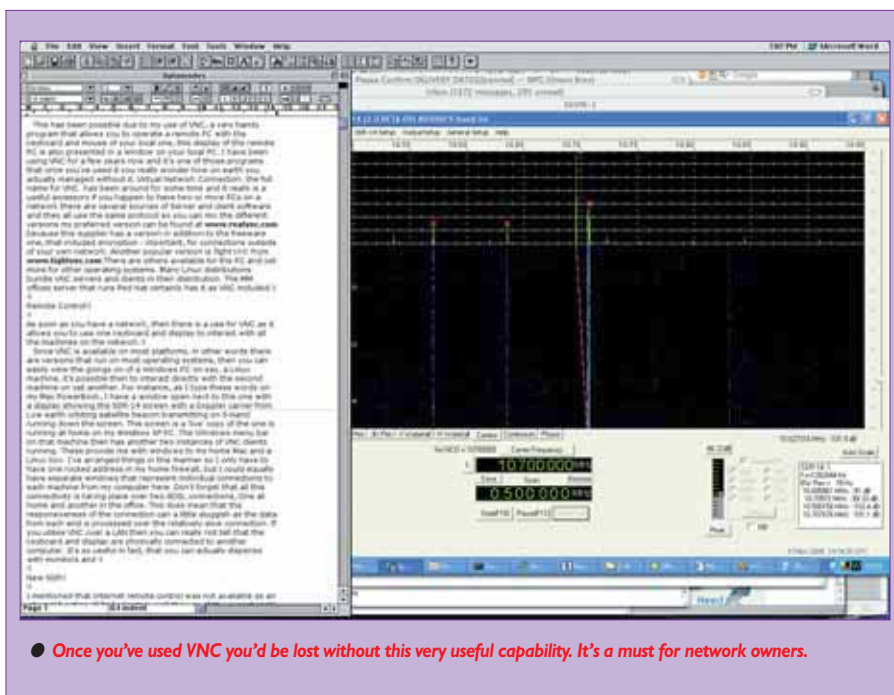
has it as VNC included.

Remote Control

As soon as you have a network, then there is a use for VNC as it allows you to use one keyboard and display to interact with all the machines on the network.

Since VNC is available on most platforms, in other words there are versions that run on most operating systems, then you can easily view the goings on of a *Windows* PC on say, a *Linux* machine, it's possible then to

home Mac and a *Linux* box. I've arranged things in this manner so I only have to have one routed address in my home firewall, but I could equally have separate windows that represent individual connections to each machine from my computer here. Don't forget that all this connectivity is taking place over two ADSL connections, one at home and another in the office. This does mean that the responsiveness of the connection can be a little sluggish as the data from each end is processed over the relatively slow connection. If you utilise VNC over



interact directly with the second machine on yet another. For instance, as I type these words on my Mac PowerBook, I have a window open next to this one with a display showing the SDR-14 screen with a Doppler carrier from Low earth orbiting satellite beacon transmitting on S-band running down the screen. This screen is a 'live' copy of the one that is running at home on my *Windows XP* PC. The *Windows* menu bar on that machine then has another two instances of VNC clients running. These provide me with windows to my

a LAN, then you can really not tell that the keyboard and display are physically connected to another computer. It's so useful in fact, that you can actually dispense with monitors and keyboards altogether on all but one machine!

New SDR

I mentioned that Internet remote control was not available as an internal function of *RadioControl*, well the use of VNC, or *Remote Desktop* if you happen to be using *Windows XP*, at both the local and

remote PCs, provides the required functionality. My set-up also allows me to view, (I said I was keeping an eye on things), my trusty SDR-14 so that I can observe the 4MHz wide waterfall



● The new low price SDR-IQ from RF Space promises to be popular.

display, whilst routing the audio over the Internet so I can also listen to the radios in my shack.

On the SDR front, there is good news for those of you who are waiting to try Software Defined Radio for yourself, I've just been told by **RF Space**, the manufacturers of the SDR-14, that their new cost reduced version, is due to ship very soon. The new radio, known as the SDR-IQ, will be available as a built and tested p.c.b. with an optional case and will be priced at an introductory level of \$375 for the p.c.b. version. This price is for a limited quantity only and the price resumes to the RRP of \$449 once this first batch are all sold. With the current exchange rate the full cost represents a price of £236 plus carriage VAT and import duty. We will, of course, be bringing you a full review of the SDR-IQ just as soon as I get my hands on a unit.

You can see more details of the SDR-IQ at www.rfspace.com/sdriq.html

Some Clarification

As I mentioned above, I reviewed the excellent *RadioControl* software in the November issue of *MM*. We were a little pressed for time and there wasn't an opportunity to include the comments we received from **Ralf Reiterer** of Syslabs.

I highlighted some areas where I thought things could have been done better or perhaps some additional features could be added.

My first observation concerned the installation of *RadioControl* due to having had problems with this. It transpires that the version I was supplied for *MM* evaluation, is the 'Demo Version' of the program. This actually differs from the *RadioControl* that customers receive. The problems that I

encountered were specific to the Demo version. Ralf assures me that they have been fixed for Demo version set-up now and that customers who receive the various levels of the full program would

not have encountered the install problems that I saw. It seems that my assumption about the dongle drivers were correct. Anyway, my comments were about a version not seen by normal customers.

Ralf also commented about my observations on the lack of manual, he reckons that PC users no longer expect separate manuals, I do, to a large extent, agree with this.

However, if the documentation is only available once you've installed the program, then where do you look to solve install problems?

I was delighted by the capability of *RadioControl* to run multiple radios simultaneously, I mistakenly said that it was four, this was due to the size of the plug-in 4-Device monitor that can be placed on the screen by the front panels. There is also an 8-device monitor that allows the user to observe eight radios simultaneously. However, *RadioControl* can actually control up to 65,535 radios at once, assuming your hardware has the capability of course. The plug-ins are only available with the Professional Edition, but the multiple control capability is available from the Standard Edition upwards.

Even if you have only one radio, this multiple radio control capability can be of use, due to the ability to save different configurations of the same radio. This is very handy when using the likes of the AR8200 where you have different slot cards, say you've got a Tone eliminator, and a CTCSS card and you want to run the radio without any cards. This can easily be achieved by defining three different configurations and selecting the appropriate one, depending on the module fitted.

As **Jack Weber** pointed out last month in his building a radio PC feature, not all PCs have serial ports these days. So it's handy that *RadioControl* fully supports virtual serial ports so adapters such as the USB to RS-232 that I was using and PCMCIA to RS-232 are guaranteed to work.

I mentioned that there are an extensive range of radios that are supported, I omitted to give the complete list, so you can add the Rohde &

Schwarz EB200, (I wonder if there any *MM* readers with one of those?) and WiNRADiO's older generation WR-1XXX and WR3XXX radios.

Of all the radios that *RadioControl* is designed to work with, only the EB200 reports all of its changes of panel settings back via the port. So my comments regarding getting out of step is unfortunately something that can only be addressed by the radio manufactures, perhaps we will see some better implementations of remote control with the new radios being developed such as the R9500 and the AOR-Alpha. I note that they have both added better interfaces than RS-232!

Last month I had every intention of mentioning a seriously useful feature of *RadioControl*, that of its mode and i.f. filter mapping capabilities. I also omitted to bring your attention to the fact that you can tune the radio by the tuning step set simply by using the mouse roller wheel - so long as your mouse has one, that is. Additionally, all the screens generated by *RadioControl* can have details cut and pasted between them, so copying data from one radio to another is a breeze. Likewise, you can take a search result from one radio and paste it into the memory of another.

To enhance the capability, the 'Mode mapping' and 'Filter mapping' features provide seamless copying between radios with different physical specifications. This also makes it possible to have one frequency database or memory file that will work with every radio as you make a virtual radio for use by the program for which there is a set of filter widths and mode specifications that tie into the actual hardware of the radio. For instance, with some AOR radios for instance, the AR5000, you can independently select the i.f. filter width in every mode. So selecting a.m. is meaningless, whereas the PCR1500 automatically selects a fixed filter width for a.m. *RadioControl* allows both radios to have the same configuration or close configuration. Once the mapping functions have been set, you can then forget about the physical differences in each radio!

RadioControl is aimed at a very wide range of users, all the way from professional and government agencies with hundreds of radios, to hobby users with one or two sets. The requirements of these users can vary significantly, but *RadioControl* offers a solution for all. The prices are as follows: *RadioControl 1.0 Lite Edition* 48.00EUR currently £32.29, *RadioControl 1.0 Standard Edition* 120.00EUR - £80.72 and *RadioControl 1.0 Professional Edition* 252.00EUR - £169.52.

When you consider the total price of the radio set-up that each version allows you to take easy computer control of, then I think that the functionality proved by *RadioControl* represents good value for money.