Ron's Trip to Wakefield

WAKEFIELD '14

by Ron Briscoe – ron.briscoe@blueyonder.co.uk
Photographs by Ron Briscoe, Steve Fryatt & Tony Todd – www.tonytodd.co.uk

Greetings fellow WROCCers! Yes, it is I: your little fat friend from Brum, tippy-typing this as requested by the man himself. He fixed his gimlet like eyes on me and like a rabbit caught in car headlights I was done for. Where is his Mom when I need protection?

Once again you hard working stalwarts produced an absolute cracker of a show and I hope that Chris took you all out for a meal at the Red Kite afterwards.

After eating breakfast in the roadside cafe just down from the venue and visiting the local Post Office where we saw an example of Northern honesty in the window, I and my friend Doug

SUZUKI GRAND VITARA V.V.T. for sale

2006 3 door vehicle, with 43,157 mileage: colour: champagne , Type: four wheel drive. This is a lovely looking car, been my pride and joy for 2 years. I am only the second owner. The car is in an immaculately clean order. I am selling reluctantly due to the car not being fit for purpose any longer.

Offers around £5,000.

An example of Northern honesty (RB)

made our way along a narrow corridor and up the stairs through to the show rooms via the ticket desk, manned as usual by courteous and friendly people. Well, I paid for my entry ticket but then got held up by a merry throng of people who, having purchased raffle tickets, were trying to fill them in on any flat surface available, blocking up the doorway in the process.

Having finally got into the room I also bought a raffle ticket, paid for an *Awake* CD and also parted with cash for my subs. I enquire about Chris's Mom and hear that she is not well enough to come to the show. My protector gone means that I am at the mercy, just like the rest of you, to the will of the Club Treasurer.

Dues paid, I am now free to wander around the tables ready to spend my unearned income on RISC OS Stuff. Well it's really my pension but as my old employers were firmly of the opinion that I never did any work, I class it as 'unearned'.
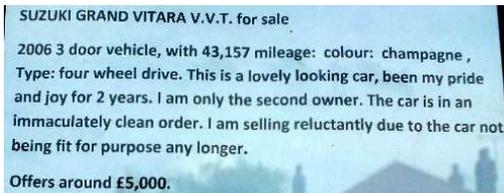
Our Next Meeting – Wednesday 2nd July
Sine Nomine Software and RiscOSM

Sine Nomine Software will be visiting us to talk about their software, including the recently-released RiscOSM which can convert map data from the Open Street Map into drawfiles.

What, no ArtWorks?

My first surprise is that Martin Würthner, for the first time that I am aware of, does not have an upgrade to ArtWorks. He later tells me that he has been so busy working on some 'very' lucrative projects that he had no time to work on ArtWorks. I hope this desire to earn money instead of updating his RISC OS software is only temporary.

Martin Würthner caused a stir by having no new versions of ArtWorks or EasiWriter on sale (TT)

I notice that the Sine Nomine Software stand is very busy and decide to give them some money later, then pass on to the Organizer stand (I know that it is really North One Communications Ltd, but that is too much of a mouthful even to type). They have nothing new for me to buy either.

I trudge onwards to the NetSurf stand, where I part with a paltry amount in return for a NetSurf 3.1 CD and after a few jolly asides move along to that astounding man of many skills, your very own Steve Fryatt. Steve tells me that he is working on further improvements to Locate 2 and that, thanks to recovering quite a lot of old source code, some of his older software may be available soon.

Heartened by this news I pass by the CJE stand where Chris and Andrew are busy parting willing people from their mazooma and stop to have a few words with Richard Keefe about his work progression on 32-bitting Impression.

Slowly is the answer. He is looking for beta testers as well, so if you want to see Impression on modern hardware please volunteer.

I buy some ROOL thingies and am pleasantly surprised to see a 'new' RISC OS user talking to the ROOL guys. Things are looking up: I even saw someone making a donation to the cause.

Magazine wars?

Strange fate or the table organizer's whim had placed the *Drag 'n Drop* and *Archive* tables next to each other. There was no trouble: Jim is too nice and Christopher was busy trying to sell back copies of *Drag 'n Drop* on a large – well compared to the old – capacity memory stick. I am tempted but remember the trouble I have finding which of my myriad memory sticks holds the data that I urgently require, so refuse. I also notice that he is flogging off the old smaller capacity sticks at a knock down price. Pah! I paid full price for one the last time I saw him at a show.

Chris Dewhurst of *Drag 'n Drop* and Jim Nagel of *Archive* in the magazine corner (RB)

📖 *Programme of Events*

Wednesday 2nd July
Meeting – Sine Nomine Software and RiscOSM
Saturday 12th July
The Midlands Midsummer Mugshow 2014
Wednesday 6th August
Meeting – Details to be Announced
Saturday 25th October
The RISC OS London Show 2014

Jim is just setting up his stand and takes the opportunity to demonstrate his carry and display cabinet. This is in reality a plastic box of sufficient size that when the lid has been removed, it can be turned on its side to display his *Archive* wares. The best ideas are the simple ones.

THIS IS A
BRAND NEW POSTER
What is it advertising?
Soft Rock Software can EXCLUSIVELY reveal:
COMING IN 2015...
AN EVEN NEWER POSTER!

A cracker! (RB)

After passing a few words with the Orpheus Internet owner I move on to that perennial "Nothing new" stand a.k.a. Soft Rock Software – where Vince informs me that he, in my honour, has produced something new. A new poster: and a cracker it is. I cannot bother Vince too much, as on top of manning his stand he is busy photographing and taking videos of all the goings on at the show.

A MUG's game

The R-Comp stand is as usual busy so I decide to come back later and having been told that we MUGs have a stand in the Retro computer and charity stall room I wander in to find that it is being manned by John Rickman's wife. This belies the implication that we MUGs are both old and in need of charity.

Whilst talking to John's wife, John appears and I persuade him to buy a Paint Pal Deluxe from the charity stall as I and, it turns out, Doug have the 32-bitted drivers. He has since spent a large amount of time trying to make it work on his Iyonix.

It being lunch time, and as I like to visit places of local interest, I decide to try out the British Oak pub. Strangely all of the WROCC members I asked said that they didn't know what it was like, despite it being on the local catering map.

Anyway I trundle off and am soon awaiting service at the bar – the waiting takes so long I am reminded that one of Steve's theatre productions was *Waiting for Godot*. When eventually I got served the beer was so frothy

Richard Brown of Orpheus Internet (TT)
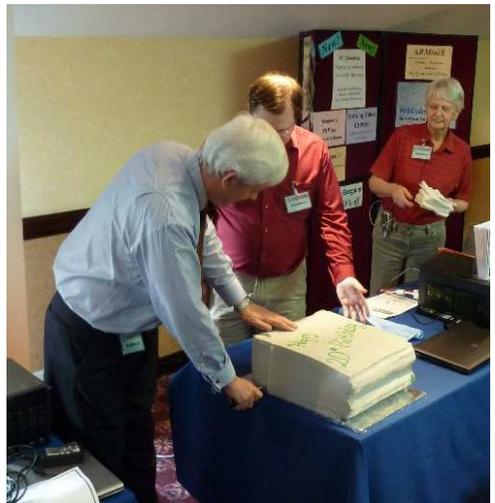
Orpheus' Richard Brown and R-Comp's Andrew Rawnsley cut the RiscPC's RiscPC-shaped 20th birthday cake (SF)

Hilary and Matthew Phillips are
Sine Nomine Software (RB)

that it had a seven inch head on it and still did not reach the top of the glass. Whilst I still had the barmaid's desultory attention I decided to let the first glass settle and try a different brew. This was better: perhaps because the barmaid was tired out from pulling the first pint and so pulled the second one at a more sedate pace.

Internet mapping

Having consumed my one and a half pints I wandered back to the show and purchased the remaining software on my list (yes, I do have a list). RiscOSM and a new copy of Impact on a CD from Sine Nomine Software, the latter as my original is on floppy discs and so cannot be installed on modern hardware. Last on my list was a copy of DPGenealogy from R-Comp.

ROOL's Rob Sprowson is caught mid-pizza
while Steve Revill talks to a customer (TT)

All my listed purchases made I spent the rest of the day watching Phillips Laser Disc Players being repaired and various people, young and old, playing with the computers on the Retro Hardware stand. No, really: I was trying to resist the tempting offers on the charity stall. I resisted so well that I only bought three hard drive carriers. Just the thing for safely storing my spare hard drives. I only hope Chris never counts the number I have in the loft.

As usual a first class show and I would have stayed to help my fellow members dismantle and put everything away but Doug wanted away. Honest – well, that's the story I'm sticking to.

There was a range of old computers in the 'retro' room, including a well-expanded Electron (TT)

By the way, my route around the show was not as it seems circular but more of a zigzag backwards and forwards across the hall. You eagle eyed readers may also have noticed that I never went to a theatre talk: I never do. If there is something important coming up then I will know soon enough.

My most sincere thanks to you all for making my day out at Wakefield a really good one.

Regards,
Ron

ROOL at the Wakefield Show

by Malcolm Hussain-Gambles – malcolm@wrocc.org.uk

We were lucky enough to have Steve Revill present at the show: one of the 'founding' members of RISC OS Open Ltd and the company's Managing Director. During his slot in the show theatre, he went through the reasons behind the founding of ROOL, which were primarily to make the source code for RISC OS freely available.

The ROOL team responsible for its inception are largely ex-Acorn, so their enthusiasm for RISC OS seems to have expanded in the face of the adversity that they have faced over the years. From its conception in 2006 ROOL has grown from strength to strength: their target of opening the source code for RISC OS alone is a staggering achievement, realised when they published the first sources in May 2007.

Further down the road saw the release of the first 'ROOL' RISC OS for the Beagleboard in 2009 and, of course, as everyone must be aware, for the RISC OS Raspberry Pi at the end of 2012 which has caused a significant increase in the available hardware and people interested in RISC OS.

The Pi was my re-introduction to RISC OS; now I seem to have three RISC OS machines in my house at the moment whilst my Windows and Linux boxes just seem to gather dust. So from my perspective at least, the Pi release was a masterstroke.

Last year was also ROOL's first show, organised in Portsmouth during September 2013. Steve admitted that it was a task to produce the show: this will come as no surprise to anyone involved in the Wakefield show or any other of the nationwide shows!

Next Steve went on to discuss what ROOL actually do: RISC OS administration, publicity, merchandise and fund raising as well as what we actually expect they are doing which is development – not to mention the overhead of running a limited company.

Finally, Steve mentioned the huge increase in exposure that RISC OS has got over the years, culminating with the Pi release – which from what I have seen seems to have been an almost exponential increase. Whilst this all seems good news, it was tempered with what must have been disappointment (although that didn't seem to show) with the lack of traction with the various bounties that ROOL have been experimenting with to accelerate various projects and to also provide funds to keep the servers ticking and provide the bandwidth for the website.

ROOL have recently added an option to the 'bounties' to allow monthly donations, from five pounds a month to twenty pounds a month. As ROOL are unfortunately unpaid for their time, all the money does go directly into supporting development and promotion of RISC OS.

Anyone wanting to donate can go to the bounties section on the ROOL website: the repeating donations are under the RISC OS General items.

> If you would like to donate to help ROOL, you can set up a recurring donation by visiting `www.riscosopen.org/bounty/polls/13`
>
> Alternatively, you can make one-off donations to any of the 'bounties' listed on their site at `www.riscosopen.org/bounty`

More from Wakefield

There's more news and photos from the show in RISCOSitory's show report, which can be found on their website at `www.riscository.com/2014/show-report-wakefield-2014`

The report includes links to YouTube videos of all of the show theatre presentations from MW Software, Sine Nomine, CJE Micros', R-Comp and – of course – the ROOL one described here.

May's Meeting Report

text and pictures by Peter Richmond – peter@wrocc.org.uk

The May meeting was meant to start with Terry Marsh looking at some add-on boards and programs for the Raspberry Pi, but he'd left one of the small boards at home so instead Steve Bass started with a look at another add-on board for the Pi – the X100. Steve's brother had initially bought the board but never got round to using it, and Steve didn't refuse it when it was offered to him.

The reason Steve wanted such a board was that he wanted less of a mess of wires, rather than two power supplies, a USB hub and an in-line HDMI to VGA converter. He also wanted a VGA connector output which he could use through his 4-port KVM switch. With this setup he also uses both PS/2 mouse and keyboard, so on the Pi he has to use a USB to PS/2 converter. He has found that the 'cheap' ones you can obtain via the internet don't work, but the one from Maplin's does. [*This is my experience too, and it's not just RISC OS: the cheaper ones that I've bought are happy with Windows but don't even work with Linux* – Ed] It costs around £15 and looks like a 'soap-on-a-rope'.

Steve Bass opened the meeting with a look at the X100 expansion board for the Raspberry Pi

An X-rated Pi

So what is on the X100 board? There's a VGA connector, four USB sockets, DB9 serial port and battery-backed real time clock – and it all fits in small format board which sits above the Pi and only needs one power connector. The board was bought from a company called Extreme in the USA and was $37 – about £25. You may also be able to get it through Amazon.

If you're going to use it fully, you need to solder a few pins on to the Pi for a reset button (no more unplugging one or two power supplies). Two small expansion connectors are provided: one is an HDMI to HDMI adaptor to link the board to the Pi's HDMI output, and there is another to connect the board to one of the USB sockets which makes a USB hub with four outputs. There are also some nylon pillars which properly space the boards apart. The board then gives the VGA out, access to the GPIO bus, a 9-pin serial port and four USB sockets. All other sockets on the PI remain the same – composite video out, stereo audio out, SD card etc.

Another advantage that this board may give is that if you plug in an SD card via a USB card reader, it is 'seen' as another SD card, which may give speed of access advantages over a standard USB memory stick. Some tests need to be made to see whether this is the case or not. [*Discussions on ROOL's Forum suggest that SD cards on the X100 are connected as another USB device, so no speed improvement.* – Ed] With regard to the serial port, there isn't currently a RISC OS driver, but apparently there is a test version of a module available.

Because of the way that the boards are connected, only one power supply is needed. The VGA connector appears as a 'device' with the name "Lontium", and can provide a very

clear 1920 × 1080 image – which is full HD resolution. Steve had previously tried a few HDMI to VGA in-line converters and had found that only one designed specifically for the Pi worked (PiView), but with less clarity than that provided by the X100. It's also worth noting that currently the RTC on the X100 board doesn't have a RISC OS driver.

RISC OS Pico

Terry was next on and started to set up his collection of add-on boards and cards for the Pi, while we wired up a camera so that the audience could see the boards – which were all less than six inches square – more clearly. Terry first had a look at an SD card he had recently purchased from RISC OS Open Limited for £7 – it's called RISC OS Pico and is a minimal version of RISC OS for the Pi that and boots directly into BBC BASIC, along with a few demo programs.

It's been released to celebrate the fiftieth birthday of BASIC and also includes some programs to toggle the GPIO lines of the Pi: which could be used to light up an LED. If you purchase the card from ROOL, you also get a free PDF copy of Martyn Fox's book "First steps in Programming RISC OS Computers". We spent a few minutes trying to remember our BBC BASIC – while we eventually collectively worked out how to load and run files, we didn't really explore this avenue very much.

Terry then went on to demonstrate an Arduino Mega board (£44.99 – £199.99) which he had

Terry Marsh followed, talking about his experiences with the Arduino and Gertboards

connected to his Pi. He used the Maplin voucher that he had received from WROCC last year to help buy this board, but it is also available from a number of other suppliers. The board has loads of hardware including 54 digital I/O pins, 16 analogue inputs, 4 UARTs (hardware serial ports), and a 16MHz crystal oscillator. This board should be able to be programmed by the Pi, but Terry had had some problems with this and had had to write/amend the program on his laptop (the reason will become evident later in the writeup).

Programming the Arduino

Terry modified the original program – which was to light four LEDs – so that it would light twenty four LEDs. He admitted that he hadn't programmed these lights in a 'clever' way, but

More information

Details of the devices demonstrated at the May meeting can be found online:

X100 – `www.suptronics.com/RPI.html`
RISC OS Pico – `www.riscosopen.org/content/sales/risc-os-pico`
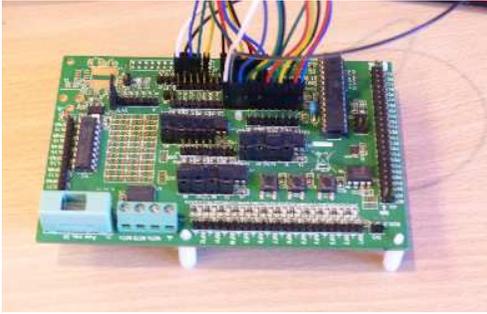Arduino Mega – `arduino.cc/en/Main/ArduinoBoardMega2560`
Arduino Sketch – `arduino.cc/main/software`
Arduino IDE – `github.com/whitewitch/arduinoIDE_RPi_installer`
GertBoard – `www.element14.com/community/docs/DOC-51726`
Gordon Henderson's Gertboard Projects – `projects.drogon.net/raspberry-pi /gertboard`
Adafruit Touch Screen – `www.adafruit.com`

The Gertboard, designed by Gert van Loo, provides an easy way to interface with a Pi

has twelve buffered I/O, three push buttons, six open-collector drivers (50V, 0.5A), an 18V, 2A motor controller, a 26-pin Atmel ATmega 328 minicontroller (as used on some Arduinos), two channel 8-, 10- or 12-bit digital to analogue converter, two channel 10-bit analogue to digital converter and twelve LEDs with power limiting resistors. You can download and print the manual from Farnell Element 14 and other sites.

Terry then went on to demonstrate the fact that the board will actually fit over the Pi, which is not recommended as it shorts some of the Gertboard's circuitry and GPIO. It actually fits facing away from the Pi and alongside it or even at the end of a 26-way ribbon cable. If you go online you will find various programs for the Gertboard written in Python and C; there are even some on RISC OS to run various parts of the board. You will also need extra female to female jump leads, as although you are provided with some when you buy the board there are not enough for some of the programs.

It is also possible to program the ATmega 328chip on the Gertboard directly, so that it can work away from the Pi, but Terry didn't succeed with that – some examples can be found from Gordon Henderson's website, however. Terry did show one 'demo' on the

had instead just repeated a section of the program so that it addressed all 24 LEDs which were chasing round the board. The Mega board, when programmed, can then run without the Pi since it stores the program in its own non-volatile memory. Terry had connected all the LEDs and associated resistors to an electronics prototyping 'push-in' type breadboard, and successfully demonstrated his modified program in action.

The programming language for the Arduino is a variant of C/C++ although it's considerably simplified. Programs called 'sketches' are written in the Arduino IDE, which then fills in the 'missing bits' when compiled – this makes it much easier to get simple programs working and interacting with the hardware. A copy of the IDE can be found using the links on the box on page 7: on Raspbian, the Arduino community recommend using the installed found via the GitHub link and not installing via the Aptitude package management system ('apt-get'), as that version is now quite old.

Adding a Gertboard

Next came the turn to demonstrate the Gertboard (£31.20) designed by Gert van Loo who, along with others, helped designed the Raspberry Pi. This add-on to the Pi connects directly on to the GPIO pins for information and power. It

The Gertboard attached to Terry's Raspberry Pi

Gertboard with running lights in various directions using the onboard 12 LEDs.

After a few minutes of re-wiring, Terry then went on to hook up an Adafruit 2.8" 320 × 240 touch-screen LCD board to the Pi. The board was bought from a company called PiMoroni, which are based in Sheffield, and cost £34. For full use of the board, you need to get some small switches, which are only a pound altogether, but need to be soldered onto the board. Again, the board can't currently be programmed via RISC OS or any other operating system other than Wheezy at the moment, but Terry got a program running from

Adafruit which played a movie clip of "Big Buck Bunny" on the LCD after it had been reduced to 320 × 240.The display was good quality, which, to me was a bit of a surprise given the low cost and resolution. Text was also surprisingly clear, even at the standard small size that we saw.

The supplier also walk you through the process of getting the touchscreen set up: it's better to use a clean install of Wheezy for the touch screen as it involves altering some of the root directories. Terry had the How To of the touchscreen set up, loading and running on a pad for reference and to show us.

Changing Uniprint Icons in RISC OS 4   SOFTWARE

by Chris Bass – cr.bass@btinternet.com

I use UniServer (UniPrint) on my RiscPC running RISC OS 4.39 to print to a postscript printer on my PC. My only complaint is that I don't like the printer icon shown in Printers on the iconbar. I decided to edit the UniPrint driver.

When you load the UniPrint driver into PrintEdit you get the window shown in figure 1 below. I edited the name of the sprite used on the iconbar, in the Sprite name field, from
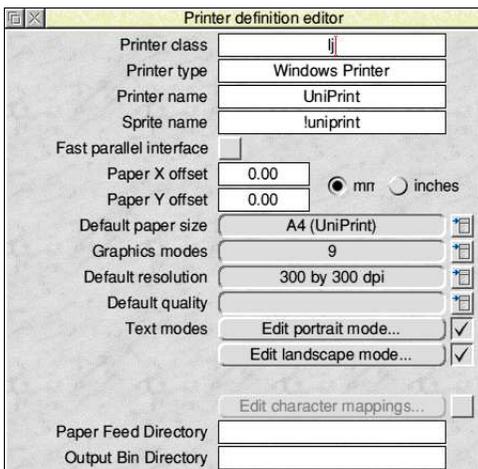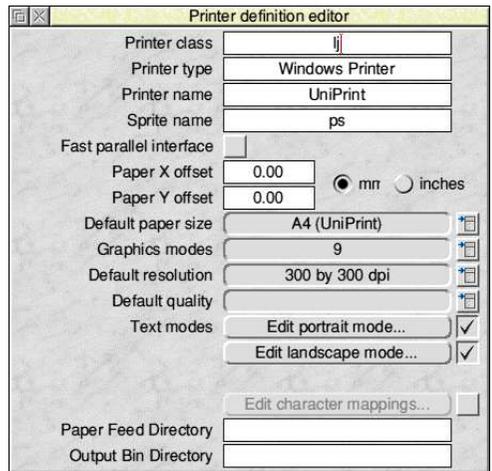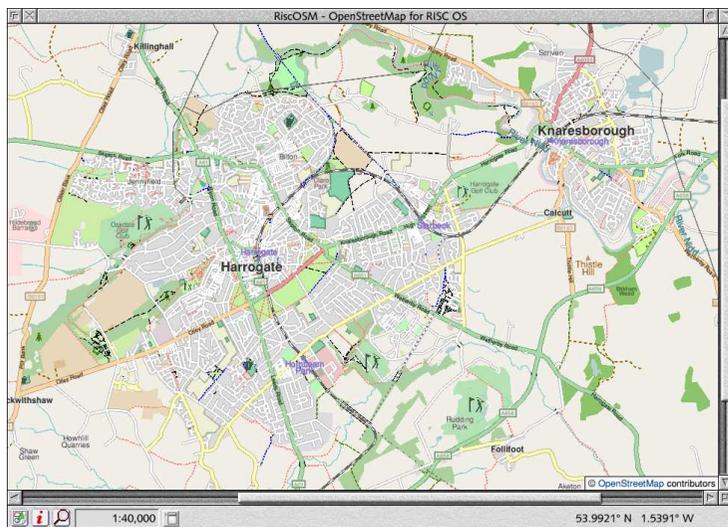

Figure 2: The edited driver, using the 'ps' sprite

'!uniprint' to 'ps' as shown in figure 2 above, then saved the driver with the new name 'UniPrintPS' so as not to overwrite the original.

When installed, the new printer driver file 'picks up' the default 'ps' icons within Printers instead of the ones in UniPrint and now the iconbar looks like this:

Figure 1: The UniPrint driver as supplied, loaded into PrintEdit

Mapping With RISC OS

by Steve Fryatt – stevef@wrocc.org.uk

don't have an internet connection.

System requirements

When originally launched, RiscOSM was said to require RISC OS 5 due to its use of the unicode font manager. While that's no longer the case, there are still traps for the unwary on RISC OS 3, 4 and 6: the main problem being memory.

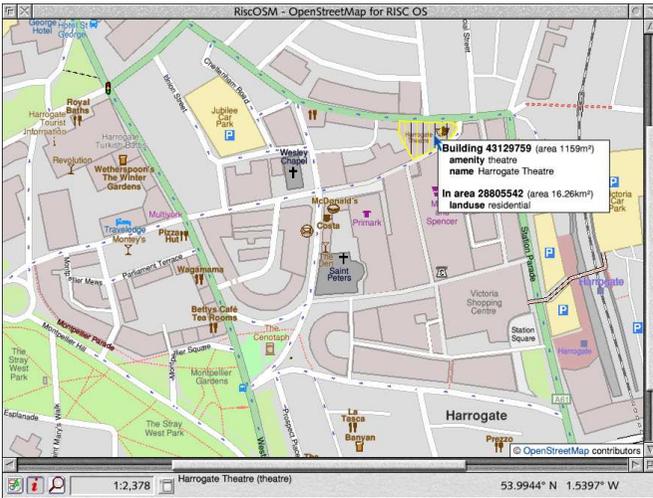RiscOSM makes good use of the large wimpslots introduced on RISC OS 5, but the data for an A4 map can easily run to around 40 or 50M bytes when loaded into memory. Other systems are limited to 26M bytes, so unless you have the 32-bit OS there will be a limit to the size of map that can be rendered.

The system also makes use of long filenames, which should be available on most systems nowadays.

Creating a map

Loading RiscOSM on to the iconbar and clicking on its icon opens the New Map dialogue. It's possible to enter valued for latitude and longitude, if you know them, or go to a previously saved bookmark; alternatively, RiscOSM's gazetteer can be searched interactively by entering the name into the field.

A list of possible matches is shown, reducing in length as more of the name is typed; the list shows counties and administrative areas alongside the names to help remove any ambiguities. The names in the gazetteer are drawn from the OSM database, and so are at the mercy of those collecting the information –

Last September (*The WROCC* 31.6), I wrote a short article about MapView by Thomas Milius: a free application to render the Open Street Map (OSM) on the RISC OS desktop.

At the Wakefield show, Sine Nomine Software launched a new application: RiscOSM. Like MapView RiscOSM displays the Open Street Map on RISC OS, but that's where the similarities end. Instead of using bitmap tiles generated by the OSM's servers, RiscOSM works with drawfiles, turning the data from the map into scalable vector graphics which can be exported for use in other applications. The maps can also be exported in bitmap form as sprites if that is required, and printed if Sine Nomine's DrawPrint (which is free from their website) is also installed.

The other difference is that RiscOSM works offline: while MapView downloads the bitmap tiles that it needs from the OSM server when it needs them, RiscOSM generates the drawfiles it displays 'on the fly' from data stored locally in a separate OSMData application. The whole package comes on CD with 561M bytes of data, allowing it to be used on systems which

With information mode on, hovering over objects on the map displays information about them (above); a vector version of the map (below)

so far I've not found anything that RiscOSM doesn't know about.

A scale is selected for the new map based on the size of the selected place (it will zoom in close for villages, while zooming out for towns and cities), but this can be changed if required from the drop-down menu. It's also possible to select a 'style sheet' to use when rendering the map on screen – more of which later.

Once the required options have been entered, clicking on *Draw map* will cause RiscOSM to start to create a drawfile version of the map data. The rendering happens in the background, and for a complex page it can take some time even on a modern machine. Current progress is shown in the status bar at the foot of the map window.

Getting around

Once a map is on screen, it's possible to move around by dragging ('panning') with the mouse. A scroll wheel will zoom in and out, as will Select and Adjust double-clicks. Shift-drags allow a box to be dragged out around an area of interest for zooming in: a 'marquee zoom'.

There's a history of map views which shows in a thumbnail display very reminiscent of that used by NetSurf, and it is possible to step back and forward through this as required. Views can also be bookmarked with a name, so that they can be revisited quickly in the future.

Moving the mouse over the window causes information about the object under the pointer to be displayed in the status bar; for more detailed information, turning the information mode on will highlight objects as the mouse moves and display their full details in a pop-up box by the pointer. Sometimes a Ctrl-click can provide even more detail: a link to a relevant website or possibly the 'real time bus information' for a bus stop, perhaps.

Finally, the search tool on the status bar will search the contents of all the database tags in the visible map, allowing searches for street names, public buildings, parks – or anything else, including the names of shops, bars, theatres and the like. The only gotcha here is that the search will only work when the object is visible: if the map is zoomed out too far, the necessary data won't be loaded (street names are present if their streets are shown, however:

there's no need for the name itself to be displayed).

Different views

What is actually displayed on the map at any given zoom level is controlled by a style sheet, which can be selected when a new map is drawn and changed later from the menu.

Three sheets are supplied at present: a 'default' view, a more detailed view which shows a higher level of detail at various zoom levels, and a view which highlights railways over roads and other features.

While it would be possible to create additional sheets, there's currently no documentation for it and the sheets themselves are fairly complex. At the Wakefield Show, it was being suggested that this will be addressed in the future.

Licensing matters

The maps used by RiscOSM are licensed under the Open Data Commons Open Database Licence, which means that the data supplied with the application, and any maps produced with it, are free to be used for any purpose so long as a suitable attribution is given (for example the one by the maps on the previous page).

Sine Nomine have written a conversion tool to generate the map data in the OSMData application from the raw data downloaded from the Open Street Map's servers. This is currently a work in progress, but they plan to release it once it is suitable for wider use.

Remember that the RiscOSM application itself is commercial, and can not be copied: it is licensed to the purchaser.

---

*The deadline for contributions to the next issue of the newsletter will be **20th June 2014**.*

Disclaimer: The Editor and committee of the Wakefield RISC OS Computer Club are not responsible for the contents of any article, letter or e-mail contained within this newsletter. All views expressed are those of the individual concerned, and do not indicate that WROCC, the Editor or the committee agree with any statements made.