



Iceni Newsletter April 2023

Coronavirus Impact Covid-19. We are continuing to hold our meetings online as this seems to suit everyone and saves travelling during the dark Winter months.

I hope you are all keeping safe and well and will be able to join us online.

If you wish to join us just follow the link or paste into your browser:-

<https://meet.jit.si/IceniComputerClubMeeting> and follow instructions to allow camera and microphone access. We have found some problems with screen sharing on the Mac if using Firefox, but using Safari or Chrome is ok as is using Windows.

There is nothing to download or install. We still meet on the third Wednesday of the month at 7:30 p.m. via Jitsi.org Video conferencing.

Our Next Meeting on Wednesday April 19th Computer Surgery / Firewalls and Computer Security.

I am hoping this will give us an update on what is available and how we can best protect our systems.

Our Last Meeting Wednesday 22nd March 2023 Raspberry Pi and Arduino, USB-C - single board computers and RISC OS.

Many Congratulations to Sue and Steve on their recent marriage in USA we were delighted for you and enjoyed hearing about your Rolls-Royce wedding carriage. Very Grand.

We ran through various R Pi versions. The RPi4 and RPI 400 being unavailable at present due to the chip famine, but the Pico and PicoW (Wireless) were plentiful. Paul began the main business of the evening with his description of the badger device.

This is a small credit card sized

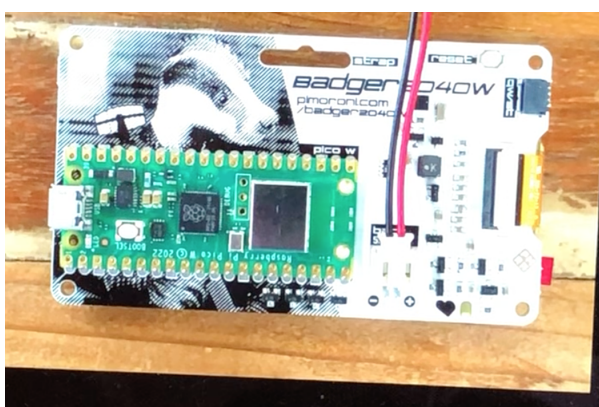


microcontroller which is hackable to that it can be modified to your own requirements. They are available from Pimoroni for about £18/£12 dependent on whether it has Wireless provision.

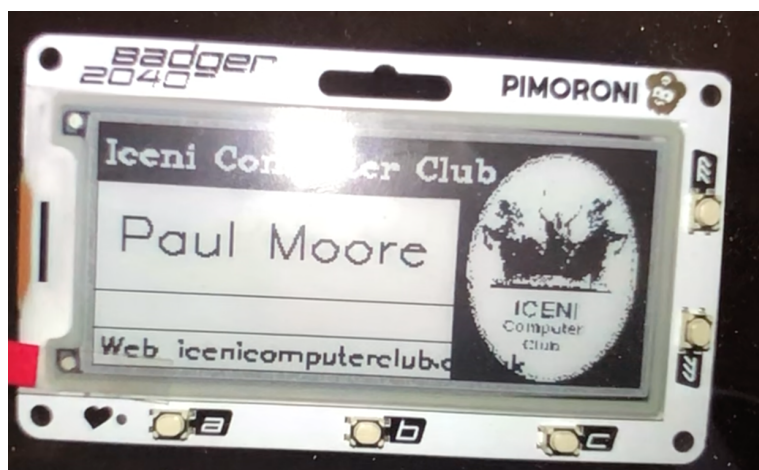


The device looks like a badge and has an eInk display 296 x128 pixel. The wireless version is the most versatile having an adjustable real time clock and can display a QR code, the weather, News and other information. Paul demonstrated his badger set up as an Icen membership card with a QR code linking to our website. Since eInk displays only use power when they are rewritten the battery life is very long. The wireless version can be rewritten as necessary.

The non Wireless [is that wireless less ? Ed] version still has a clock but it defaults to 00:00:00 on power up and cannot be set to the correct time. Other information can be set via the micro US connector.



Programming is via MicroPython IDE in Python, C or C++. The device has a



few megabytes of memory and uses a Pi pico on the back which is about the size of a bar-coded postage stamp.

Paul had set up his Badger as a membership badge for Iceni, which I thought was quite clever. Here is a shot of the result.

There was some discussion of the Pinebook from Steve.

We had some discussion on Ad blockers. Duncan found that his adblocker stopped direct adverts but was pleased it also stopped ads on YouTube.

Duncan shared VNC between the RPI and his X6 to simulate the Enigma RISCOS simulation.

He purchased a 10 port USB hub with power supply and a power switch. His RPI software recognised the device as a camera but did not allow any download. He was hoping to digitise some files and had wanted to use Audacity on the RPI and hoped this would help him. Duncan was able to record and playback some sound from our meeting later.

Steve had USB devices are not usable perhaps not fully compliant. Peter had similar problems with an external DVD drive for his Mac which requested a power connection even though he had already connected a power supply. We all agreed that USB was not a very good connection certainly compared to the lightning connection.

Paul had a power and voltage monitor for USB to ensure he did not overload his devices.

Peter had a go at repairing his Philips Air floss with a new Li polymer battery, but was unsuccessful. He was annoyed that Philips would not perform a repair of the device when the battery had failed since it was considered out of warranty; and just advised him to throw it away (as electronic waste, of course). There was a certain amount of discussion then on right to repair and some warranties not being long enough to enable one's legal rights. These Lithium polymer batteries only cost about £10 but only work for about 2 years.

There was some discussion of secureID cards which Steve thought were no longer regarded as secure.

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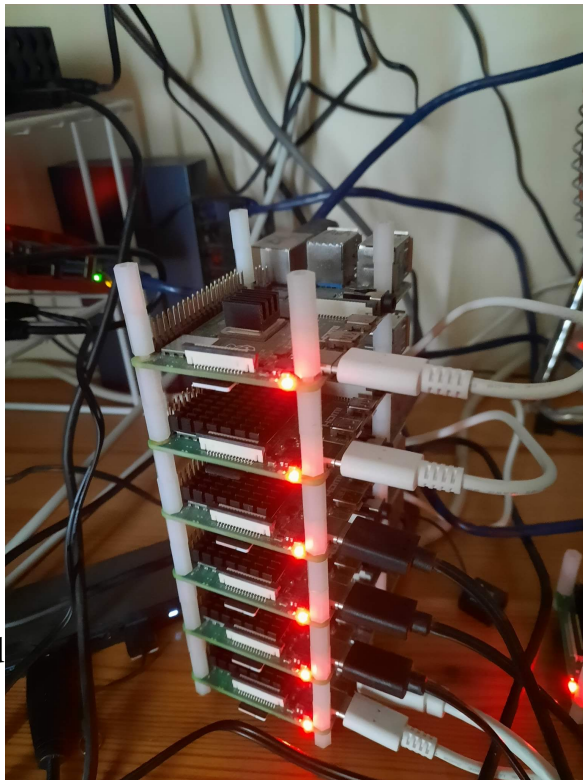
After the meeting I found an email from Andrew Wallace who was a member a couple of years ago and is still on our mailing list. Andrew says :-

If I lived closer, I would have been *\*very\** interested in this one, being a fully fledged Raspberry Pi geek. Living fairly close to Cambridge has advantages, a big one being that the pi shop in the grand arcade usually has stock of the pi model 4b available, although they limit purchases to 1 per visit. So I've accumulated quite a few over the last couple of years.

The Pi model 4B is now powerful enough to take on significant computing tasks. To give you an inkling of its capabilities, it has roughly 80% of the throughput of an Intel i7 powered laptop clocked at 3 GHz. Powerful enough, that I use it for everyday computing requirements.

What do I use them for? One is my house's dedicated file server. Another is both my general purpose office machine, backup server and inbound VPN server, allowing me LAN access wherever I happen to be, provided my broadband and that Pi are both up. Another Pi looks after various WiFi electrical switches and temperature sensors (pyruvic tags, look them up) around the house, turning lights on and off at various times, or at sunrise/sunset.

Recently, I've discovered fractals rendered using ray tracing techniques using a program called mandelbulber2. Those of you on Facebook can look at some of my efforts using this, as there is a public Facebook group, called Mandelbulber, in which I've been participating. One of Mandelbulber's really cool features, is that it supports multi core CPUs fully (Pi model 4 is 4 core) and, better still, distributed computation of fractals across as many networked CPUs as you have, reducing the fractal rendering times from hours to minutes. Ideal if you've got 8 or so Pi model 4B boards, see photo attached of fractal and ray tracing compute stack, 6 model 4 boards connected by Gigabit ethernet and all sharing access to a Pi based file server.



That's enough for today. I hope this is of interest.

[Ed. It certainly is , thank you Andrew. A minor point ; since we hold all our technical evenings online now the distance to Cambridge is irrelevant and we'd love to have you join in via [Jitsi.org](https://jitsi.org).]

## ICENI Future programme

We can be flexible and rearrange topics if the need arises, so if anyone would like to present a talk or suggest a topic to be covered please let us know. Now we are once more able to have social evenings we are always looking for suitable venues. We would like to hold these in a restaurant in the area between Ipswich and Colchester so that friends from Essex can join us without having to travel too far.

It has been suggested that we alternate our meetings between online and in-person meetings, although online meetings have been quite convenient for several of us to avoid going out and also saving travelling time. Since now the cost of fuel has rocketed it may also be more prudent to stay online only. Gareth suggests this may need a decision at the AGM.

We are going to need a meeting to decide on next year's programme soon so please let us have a few ideas.

Peter

## ICENI Future programme 2023

|            |                                                     |     |
|------------|-----------------------------------------------------|-----|
| April 19th | Computer Surgery / Firewalls and Computer Security. | All |
| May 17th   | AGM + Extras                                        | All |

**MEETINGS WILL NOW BE HELD ONLINE BUT STILL ON THE THIRD WEDNESDAY UNTIL FURTHER NOTICE UNLESS OTHERWISE STATED..**

## Special Notice - Insurance

"ICENI does not have any Insurance cover for computers or other equipment so please be advised that you bring machines to the club at your own risk."

However many household insurance policies will include cover away from home often with no increase in premium. (Ed.)

## Our Website and Email

Our website URL is

<http://icenicomputerclub.org.uk>

Email to: [iceni@woolridge.org.uk](mailto:iceni@woolridge.org.uk)

The website is where you will find copies of the Newsletter from Previous years and also where you will find our Committee Members and future programme.

I am open to suggestions on what people would like to have included in the website.