





## Les Pounder takes us on a tour of the crown jewel event of the UK's Linux and open source community.

OggCamp is much more than just an event; it's where a community comes together for knowledge, entertainment and socialising. Founded in 2009 from the ashes of the popular LUG Radio Live event, OggCamp was formed by the podcasters behind Linux Outlaws and the Ubuntu Podcast. The Connaught Hotel in Wolverhampton first played host to the event and from this humble beginning OggCamp has travelled the UK but its heart is firmly in the city of Liverpool.

For 2015, Oggcamp, once again, took place in Liverpool at the LJMU John Lennon Art and Design Building which has now hosted three Oggcamp events. Saturday morning saw a large crowd of free software enthusiasts arriving for the event and the event drew delegates from around the world with countries such as Ireland, Netherlands and the USA particularly well represented.

OggCamp 2015 also saw the return of the Hardware Jam, an event that originally appeared in OggCamp 2012, which was one of the first places to buy a Raspberry Pi – when it first launched – without waiting six weeks for delivery, thanks to Pete Lomas, co-founder of the Raspberry Pi Foundation. In 2015, the Hardware Jam had Raspberry Pi *Minecraft* sessions and a robot hack session using Arduino, which were all presented by Mark Feltham. David Ames and Sarah Zama also led classes for people eager to learn about hardware hacking. OggCamp veteran Ken Boak was also back and worked with children to create a series of hacks based on toys.

Exhibitors are a key part of OggCamp and this year we saw the return of Ragworm, the

community PCB manufacturers and the Hacker Public Radio podcasting team. New exhibitors were Entroware, a company based in Liverpool that produce a range of Ubuntu computers, and a local radio enthusiasts group who ran a two-day radio induction course, which covered the basics in transmitting and receiving long distance radio signals.

As usual, the unconference element of OggCamp brought out the most interesting talks with notable speakers, such as Ben Nuttall from the Raspberry Pi Foundation talking about GPIO Zero, a new, easier framework for Python projects, and Alan Pope

Jam along with members of the Liverpool art community who designed the signage and merchandise for OggCamp.

This year there was no live podcast recording, signifying the shift of OggCamp organisation from the podcasters to the community. Instead, we had a live panel hosted by Joe Ressington, who hosts a number of Linux and open-source podcasts. Ressington was joined by podcasters from the community who answered questions from the audience in a similar format to Question Time but with more Linux. The OggCamp raffle was well attended with everyone eyeing up a laptop from Entroware. The raffle is an important part of Oggcamp as it generates money for keeping the event running (along with the excellent work of 'Team Merch' who come up with ingenious merchandise every year for attendees to buy).

At each Oggcamp there are a team of unsung heroes who battle behind the scenes to ensure that the community has a great weekend. The Oggcamp crew return year on year to help the event run smoothly and each bring their own identity to the OggCamp event: the friendly smile that welcomes the newcomer to the community; the person who ensures the projector always works; these people are members of the Oggcamp crew and they make everything happen because they love the community.

OggCamp 2015 was another successful event and a feather in the cap for all involved. Note: Les Pounder is the 'Oggcamp Chief' but after five years of wearing the shiny hat he's decided to step down with hope that a member of the excellent OggCamp community picks up the reins. »

### ON THE HIGHLIGHTS

**“The unconference at OggCamp brought out the most interesting talks.”**

explaining how the Ubuntu phone app store was 'owned' recently. This year we heard Laura, aged 9, ask the community what she should be learning in school. A brave and topical question. Laura reflects the rise of maker skills in our schools, children are now 'digital leaders' helping their peers to grasp new technology.

A community has grown around OggCamp and the event organisers began actively working with it back 2013. This year, OggCamp turned to the community to help augment the organising team, which had been depleted because of other commitments and ill health. The community responded and the organising team behind the recent Liverpool Makefest, Mark Feltham and Caroline Feltham-Keep joined the team to run the successful Hardware

# DR ANDREW ROBINSON: CODEBUG



**Linux Format:** Can you tell the readers more about yourself?

**Andrew Robinson:**

I'm Dr Andrew Robinson, Honorary Research Fellow at the University of

Manchester and I also run a start-up company which was behind the Codebug project.

**LXF:** So what's Codebug?

**AR:** Codebug is a cute wearable micro-controller board and the idea is that a beginner can set up and program it in less than a minute. Codebug uses a Pic micro-controller and has a series of 25 red LED creating a matrix. Along the edge, we have connections that enable users to connect using crocodile clips to components such as LED etc. Programming your Codebug is handled via a web interface and requires no software installation. Everything is handled via the web interface. Code is compiled online and then downloaded to the user's computer. From there they can plug in their Codebug, which will appear as a USB drive, and copy the code across. The code will then be ready for use.

**LXF:** We already have many different devices, why do we need Codebug?

**AR:** To answer that question let me tell you where Codebug came from. A few years ago I was hosting Raspberry Pi workshops with teachers. They had great enthusiasm and wanted to get into it, but what we found from these workshops was that it took some time for them to achieve something exciting, such as turning on an LED. It felt like we were losing them along the way as there were no quick rewards to keep their interest. As an engineer, I looked at the problem and the set up of supporting equipment was an issue. So I looked for the lowest common denominators and they were access to the web and USB. Using a web interface we can program



Codebug and via USB we can transfer the code across. Codebug comes with ready to go and basic projects, such as name badges and animations, that can be created in under a minute. Codebug is a gentle introduction, an entry point, to physical computing and will hopefully inspire people to go further with boards such as the Raspberry Pi.

**LXF:** So here we are at Oggcamp, how did you find out about this event?

**AR:** I read about the event via a feature in a magazine [what are those? –Ed] a few years ago. It seemed like a vibrant, interesting place where like-minded people can meet and exchange ideas. It seemed like the place to see what the community were making.

## ON WHY CODEBUG EXISTS

**“Codebug is a gentle introduction, an entry point, to physical computing.”**

**LXF:** Codebug is primarily aimed at children; what resources are there to help them get to grips with Codebug?

**AR:** Integrated into the Codebug website is a whole range of step-by-step tutorials and sample projects and these are all based around physical activities, not dry exercises in logic.

**LXF:** Projects like Codebug and Raspberry Pi are bringing Maker culture into the mainstream – is that a good thing?

**AR:** Absolutely, one of the purposes of Codebug was to democratise the Internet of Things (IoT), in a similar way to how Wordpress has enabled anyone to build a website. Ten years ago it was the real hackers who could build their own website, now anyone can build a site with extended functionality. With the IoT and hardware hacking culture we need to get into a similar position where anybody can build an automatic pet feeder rather than contracting someone to make it on their behalf. Maker culture is all about people empowering themselves to solve their own needs and fixing their own problems.

**LXF:** Has OggCamp lived up to your expectations?

**AR:** I am really pleased with OggCamp. Right now I am really busy with Codebug so taking a

'weekend off' to visit an event is a big commitment of time. But what I found at OggCamp was that everyone had a level of care and respect for each other's projects and ideas. The community is interested in each others work and made time to listen and that was evident during the weekend. Everyone was sharing ideas and wanting to be involved in them. The whole event has a welcoming feel.

**LXF:** Community is an important aspect to an event: does OggCamp have a similar community to that of Maker Faire?

**AR:** OggCamp stands out as a more accessible community; everyone was keen to share and wanted to work with you. The mix of stalls on offer neither detracts from the event nor from each other. Offering a great balance.

**LXF:** Did you get chance to network?

**AR:** Indeed, we had time to talk to Warwick University who are running classes with primary schools, where children can build fun projects, they are interested in using Codebug as their platform.



# MARTIN WIMPRESS: UBUNTU MATE



**Linux Format:** Could you tell us a little more about yourself?

**Martin Wimpres:** I'm at OggCamp today to talk about my Ubuntu Pi Flavour Maker.

**LXF:** So what's Ubuntu Pi Flavour Maker?

**MW:** It's a set of tools that I have built to port all of the Ubuntu distributions to the Raspberry Pi 2. Right now we have Ubuntu Mate, Lubuntu, Xubuntu and Server working perfectly but Ubuntu Gnome, Kubuntu and Unity are still work in progress due to a lack of a 3D driver. But work is progressing and we should have this soon as the framework to build the images is already in place.

**LXF:** That sounds like a very ambitious project, what is your end goal for Ubuntu Pi Flavour Maker?

**MW:** It's really a drive to improve the adoption of Ubuntu on the Raspberry Pi by providing the best desktop environment for the Pi.

**LXF:** Raspbian is considered the official distribution so what are you doing to help users adopt Ubuntu?



**LXF:** How did you test Ubuntu Mate?

**MW:** I gave out 24 SD cards running Ubuntu Mate 15.04 at a Raspberry Jam and then went back every couple of months to track their

progress and collect feedback. I found that the kids were frustrated because there was no YouTube or *Minecraft* while the makers had no GPIO development tools and other users were

frustrated because it was just a little bit too different to Raspbian. So with the latest version, 15.10 we have addressed these issues and now we have the likes of *Minecraft*, *Sonic Pi* and the latest version of Scratch that will work with the GPIO. For the makers, we've also included the RPi.GPIO Python library and we use the Raspbian kernel so that we match exactly with the Raspbian kernel.

**LXF:** So Ubuntu on the Pi is not an official project?

**MW:** No, it's a community build, but I have contacted the Lubuntu team and they will begin official support for the project soon.

**LXF:** Ubuntu Mate looks more like a serious work environment, but with the recent release of Raspbian Jessie we're seeing a more 'grown up' Raspbian with new features such as sudo-less GPIO access.

**MW:** I've done something similar with Ubuntu Mate where I have created groups with GPIO, Video and SPI access, it then creates a set of

udev rules for those groups. I set a hook for when creating a new user, the new user is added to the correct groups.

**LXF:** By having multiple Raspberry Pi distributions, do you think we are risking a fragmented user base?

**MW:** I think that it's inevitable. If we think of the 800+ distributions listed on [distrowatch.com](http://distrowatch.com), then anyone can make a Linux distribution.

**LXF:** For those interested in developing for Mate, what is the best way to get involved?

**MW:** I'd like to see the Ubuntu Pi project movement move forward so any help with packaging and porting from Raspbian to Ubuntu would be great to see. I would love to see Ubuntu Mate and Raspbian become similar but also provide access to the Ubuntu repositories.

**LXF:** So here we are at OggCamp for another year, what has been the most interesting part of the weekend for you?

**MW:** I really enjoyed Stuart Langridge's talk on publishing podcasts. Being a podcaster myself, and having friends who are podcasters too, this talk generated lots of debate. It was clear, based on those discussions, that a number of audience members are going to look at the scripts that Stuart has created and are looking to create a general-purpose community podcasting tool. I also loved the lightning talks and the exhibitors who really provided lots of information about their particular projects. OggCamp is all about diversity and it is my highlight of the year. »

## ON GETTING FEEDBACK

**"I found that the kids were frustrated because there was no YouTube or Minecraft."**

**MW:** I have side-ported a number of the Raspberry Pi Foundation's applications, tools and libraries to Ubuntu, and these are now embedded in the various flavours of Ubuntu for Raspberry Pi 2. So, eg, a user who has been working with Sonic Pi can easily carry on their work through Ubuntu.

**LXF:** You are well known for your work on the Ubuntu Mate project: is your goal to have Mate or another flavour be the leading Raspberry Pi distribution?

**MW:** I think that Ubuntu on the Pi will run in parallel to Raspbian, as Raspbian offers a fast, simple and lightweight distribution that gets stuff done especially for teaching. Ubuntu Mate was a continuation of a project that I started on the original Raspberry Pi, where I ported the Mate desktop to the ARM platform via Arch Linux. But the original Raspberry Pi wasn't powerful enough to offer a desktop environment replacement, so when the new Pi 2 came along that finally gave me the power that I needed to finish the project.

## PICH & WILSON: ENTROWARE



**Linux Format:** Thanks for taking the time to talk to us, please can you tell the readers who you are?

**Anthony Pich:** Hello, I'm the co-founder of Entroware.

**Michael Wilson:** I am also the co-founder.

**LXF:** Can you tell us more about Entroware?

**AP:** Entroware was founded to offer a UK-based source of Linux laptops, desktops and servers. We specialise in Linux – primarily Ubuntu – as we saw a growing need for customers to choose the right Linux machine for their needs. We want to show what Linux has to offer and if there are pre-built packages for customers then Linux uptake is much more likely to propagate. We offer a range of desktops and laptops that cover the broad spectrum of needs, from portables running quad-core Intel Celerons to monstrous gaming rigs with GTX 980 graphics cards. But we also provide a bespoke service where customers can handpick their components and build their dream specification.

**LXF:** So how old is the business and who are you competing against?

**MW:** Just under 18 months old and we have reached a stable level of turnover.

**AP:** Yeah, there are other providers of Linux machines, namely System76 who are based in the US. We thought that there should be something similar in the UK as there's a need to provide devices with modern hardware to the UK Linux community.

**LXF:** Your machines are designed with Ubuntu in mind, why is that?

**MW:** Ubuntu seems to be the most user-friendly operating system and especially suits those new to Linux. We also support Ubuntu Mate, and for those users who feel that Unity is just a step too far. Mate provides a similar experience to Windows.



**AP:** Ubuntu has for a number of years seen to be the de-facto standard distribution.

**LXF:** Would you ever consider supporting other distributions?

**MW:** Unofficially, we do support other types of Linux distributions and we will work with the customer to tailor the best package.

**AP:** But our main focus is on Ubuntu for the time being and that's mainly due to logistics. We need to ensure that our machines are tested and pass the QA (Quality Assurance) process and right now we use Ubuntu and Ubuntu Mate which offer that level of assurance for us and the customer.

**LXF:** So here we are at OggCamp and you are the headline sponsor. What was one of the driving factors that supported your decision to support and come to OggCamp?

**AP:** Mainly it was the great OggCamp community; they were our biggest reason to be here because we are also part of the greater Linux community which OggCamp promotes.

**LXF:** So OggCamp is your chance to undertake outreach to your community?

**AP:** Yeah, we need better brand awareness among the Linux and open source community. We've had quite a lot of interest from the OggCamp community and I think that we are on the right track.

**LXF:** I see on your stall that you have a Steam Machine running *Borderlands*

**2 and the Steam controller, which is no doubt helping your outreach?**

**AP:** Our Steam machine is a prototype; it's really a big tease for what we have to come. Right now we can't say too much, but our Steam Machine is proof that gaming on Linux is entirely viable.

**LXF:** There are more games coming out for Linux, so will we see surge in Linux gamers?

**AP:** Basically anything based on the Source engine library is Linux compatible, for example *Metro Last Light*, which is a graphically impressive first person shooter.

**MW:** I think that we will see more gamers using Linux, especially after the official release of Steam OS and more OEMs shipping their own vision of a Steam console. It will force gamer makers to seriously consider Linux.

**LXF:** A Unity Editor was recently released for Linux – do you think this will help developers create cross platform games?

**MW:** Unity is an appealing option for developers; it's viable to export the game to Linux as it requires just a few clicks.

**LXF:** Have you managed to catch any talks?

**AP:** Sadly not many, I did catch the last half of the podcaster panel. But our focus this weekend has been to engage with the OggCamp community, because that is where we get feedback which helps us improve our products. The community have been great and given us lots of useful feedback. We have had great conversations with the other exhibitors, such as Ubuntu and Ragworm. It's great to see so much is going on in the maker community.

**LXF:** What's your take away from OggCamp?

**MW:** The open source community. These are the people we looked up to when we started. **LXF**

