



news@UK

The newsletter of FLOSS UK, the new name for the UK's oldest Open Systems User Group, UKUUG

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From the Secretariat

Jane Morrison

For those of you who couldn't make York this year for the Spring conference we are pleased to advise that most of the talks were videoed - these will be available soon on YouTube and the FLOSS UK web site.

Some of our future events are listed below:

- OpenTech - Saturday 13th June - London
- Dynamic Language Conference - Saturday 20th June - Manchester
- Bar Camp - Saturday 18th July - Birmingham
- UKUUG AGM - Thursday 24th September - London
- Intermediate and Advanced Perl tutorials - possibly Spring 2016
- Spring 2016 - London - dates and venue should be confirmed very soon.

All AGM paperwork will be sent to all members in August.

The next Newsletter will appear in September and has a copy date of 14th August. Any interesting articles from members will be very welcome - all submissions should be sent to: newsletter@ukuug.org

Chairman's Report

Kimball Johnson

Upcoming Events

We have a number of events coming up in the calendar, firstly on Saturday 13th June at ULU in London OpenTech will return once again. This wonderful one day conference is always full of interesting and exciting talks, and I highly recommend you attend. For more information please see www.opentech.org.uk

The following week sees the first FLOSS UK Dynamic Languages conference in Manchester. This is a revival of a conference that was held in 2011 in Edinburgh, where it was put together by the Perl Community, and in particular Mark Keating from Shadowcat Systems as part of the Edinburgh International Technology Festival. FLOSS UK has decided to revive it, helped greatly by the fact Shadowcat Systems are now Corporate Members of FLOSS UK and Mark is on Council. The call for papers is still open, we are looking for talks about any aspect of Dynamic Languages, and look forward to a wide ranging program. For more information please see www.dynamiclanguages.co.uk

Looking forward, in November we are hosting the annual LDAPCon conference, this year it is being held in Edinburgh. More information will follow soon.

We are always looking for ideas for tutorials to run for our members, so if you have any topic you wish to hear about, please contact me at kimball.johnson@flossuk.org or Jane on office@flossuk.org

Support for local user groups

The budget is still available for FLOSS UK to assist local user groups by helping them to obtain speakers for their events and assist with travel expenses. In addition we have a small

budget for assisting with projects that would benefit the Free Software or Free Hardware communities in some way.

If you have an idea and wish some support, please contact Jane on office@flossuk.org and it will be discussed by Council.

What's happening at OpenTech 2015

With less than a month until OpenTech 2015, we're really excited by this year's schedule. As you'll see it's a fantastic, diverse line up of talks by a whole range of people working on issues and projects that really matter. Go take a look at: <http://www.opentech.org.uk/2015/schedule>

Highlights include:

- Privacy: RIPA2 and Snowdenia
- Being female on the Internet
- Selling ideas
- The Open Rights Group at 10 years old
- Open Health Care
- Privacy: health
- 3 Digital Services
- Data and policy
- The election: what happened?
- The election: what's next?

All this and much, much more.

Tickets are £5 on the door, but to make sure you get in on the day, you can pre-register here: <http://www.opentech.org.uk/2015/>

We're already about half booked and tickets are selling fast, so don't miss out. And don't forget to remind your friends - OpenTech is as much about the people attending, as the speakers.

For those who've not been before... OpenTech is an informal, low cost (thanks Open Data Institute for sponsoring us again!), one-day conference on slightly different approaches to technology, problems and democracy. You are guaranteed a day of thoughtful, thought-provoking talks leading to lively conversations with friends. Besides the sessions, there'll be plenty of time to talk in the bar which will be open until 10pm.

As ever, while there is technically some wifi in the building, as soon as we all show up, there will no longer be any working wifi in the building. So listen to the speakers (or your mates in the bar) rather than compulsively refreshing Twitter errors, wondering if you should have gone to a different session based on the tweets sent over 3G.

Oh, and did we mention? You can pre-register your tickets here:

<http://www.opentech.org.uk/2015/registration>

Your friendly opentech organisers (@opentechuk)

Dynamic Languages Conference

It is just a few weeks away to the Dynamic Languages conference on Saturday 20th June 2015 at the Studio, Manchester. The call for speakers is still open and we are accepting talks from any Dynamic Language on any subject. To submit a talk, gain more information or ask about sponsorship contact Jane (office@floss.org) or Mark (m.keating@shadowcat.co.uk).

The Dynamic Languages Conference works as an Open Technology Event with the aim of collaboration across cultures and disciplines. Already confirmed keynotes and workshops include:

Lorna Mitchell: Your Open Source Journey

Who are you and what is your open source journey? We all came to this shared experience by different routes, but the way that we find our way in the technical communities shapes both our future and the future of those communities. Come and reflect on your place, your path and your future.

Gianni Ciolli: Using Postgres with Any Language

Dr Ciolli, a developer and researcher with 2nd Quadrant, will discuss how you can use the PostgreSQL Database as a support for multiple languages as an example system agnosticism. He will even discuss how to re-use any component to easily fit different languages.

Rick Deller: Employment workshops

Rick Deller of Eligo will present two workshops:

Workshop 1: Writing an Engaging CV and Conducting yourself at Interview

- How to format and shape your CV
- Selling yourself on Paper
- Creating / developing your brand on your CV
- Securing yourself an interview Continual Brand awareness
- Telephone interview technique
- Face to Face Interview technique

Workshop 2: Dealing with Agencies and Understanding their benefit

- Initial conduct
- Building report with agents
- Understanding the benefit of agents / how they work
- Pushing back on agents
- Ensuring you get what you want when applying for a job through agent
- Maintaining your Brand
- Dealing with interviews through agents
- Closing Agents

Book your Tickets, avoid disappointment: you can get your tickets on EventBrite (<http://bit.ly/dl2015tickets>), it will take a few moments to just visit and book online today. The ticket covers entry, workshops and a lunch.

LDAPCon 2015

The fifth International Conference on LDAP and Directory Services will be held in the UK at the University of Edinburgh School of Informatics Forum.

Tutorials: Wednesday 11th November 2015

Conference: Thursday 12th & Friday 13th November 2015

Call for papers and tutorials

Topics:

- You are using LDAP in interesting projects?
- You do LDAP client or server development?
- You have used LDAP in a new way?
- You do identity and access management on top of LDAP?

Why not share your ideas and experiences with others?

We are looking for speakers who are willing to talk about any topic related to LDAP and identity management, including:

- LDAP technology implementation (Servers, API, User interfaces etc.)
- LDAP Usage (Schema, Security, Operations, Scaling, big data, etc.)
- LDAP related technologies (PKI, XACML, SAML, etc.)
- LDAP and Beyond (IAM, Identity Federation, Authentication on the web, etc.)
- Best Practices for directory services.

Accepted talks will be grouped into tracks such as a standards/development and deployment/administration.

Deadlines and Important Dates

- Submission Deadline: 28th June 2015
- Author Notification: 10th July 2015
- Final Papers due: 10th October 2015
- Tutorials: 11th November 2015
- Conference: 12th-13th November 2015

Talk Submissions

Main presentations should last about 45 minutes including discussion; we will also provide smaller slots of 15 minutes and 5 minutes for poster presentations or lightning talks. Please tell us which duration you prefer when proposing your talk. The talk must be in English.

The one and only way to submit your abstract (approximately 200-800 words, accompanied by your biography of about 100-300 words) is via email to submissions2015@lists.ldapcon.org. Abstracts must reach the Program Committee by 28th June 2015. Early submission is encouraged.

All abstracts will be reviewed by the program committee.

For accepted talks we expect you to submit slides and/or a paper of approximately 2-10 pages (A4 or US Letter format, 25mm borders, preferably L^AT_EX source or OpenOffice).

For 5-minute talks, a brief abstract is required. A short paper, slides or a poster should be provided for accepted talks. We will provide display boards for posters throughout the conference.

By submitting a paper you grant the conference organizers the non-exclusive right to publish your paper in the conference proceedings and on the website; you maintain the right to publish it elsewhere at your discretion.

Tutorial Submissions

We are looking for high-quality tutorials on LDAP and related subjects, at any level from introductory to advanced. Tutorial length can range from an hour to a full day. Wireless Internet access will be available if required. The purpose of the tutorials is focussed education, so they should cover established topics and best practice rather than presenting new work.

The Programme Committee has an open mind about the format of the tutorial day, but has a limited number of rooms available. Make your proposal early and we will aim to build an attractive programme for the day.

Expenses

Speakers get free access to the conference, including the social event.

If requested in advance we will provide accommodation for speakers.

Travel expenses might also be covered in special cases. If you need this, please contact us early so we can try to arrange it.

Website

<http://ldapcon.org/2015/>

Contacts

General enquiries: enquiries@lists.ldapcon.org

Paper/Tutorial submissions: submissions2015@lists.ldapcon.org

Other Member Discounts

Discounts for FLOSS UK members

In addition to the significant book discounts, and other benefits available to our members, we have negotiated the following generous discounts.

2ndQuadrant

Specialist Database consultancy 2ndQuadrant is pleased to offer 10% discount to FLOSS UK members on any/all scheduled PostgreSQL courses, which run regularly throughout the year.

<http://www.2ndquadrant.com/>

GBdirect

Well-known Open Source training company GBDirect is pleased to offer the following discounts to FLOSS UK members:

- 10% off all scheduled courses, including Linux, Unix, PHP, Perl, Web standards, Web Accessibility, MySQL, Apache and many others
- GBdirect also offers a wide range of on-site courses, Linux and Open Source support and consultancy services.

<http://www.gbdirect.co.uk/>

Bytemark Hosting

Bytemark Hosting is pleased to announce that FLOSS UK members will now receive a 10% discount on all of our virtual machines. Please visit <http://www.bytemark.co.uk/r/ukuug>

Bytemark provide a range of Linux hosting products providing root access from only £15 per month.

Opengear

Opengear, manufacturer of open-source remote management appliances, is pleased to offer members 10% discount across its full range of products including:

- Console servers
- Cellular routers
- Industrial device servers.

Please visit: <http://opengear.com/uk/products.html> for product details.

Hack to the future

Les Pounder

The world is full of choices and Free Software is a world of choices on its own. These choices are filtering into our everyday lives be we Free Software enthusiasts or general consumers. We are seeing this happen in our schools thanks to the Raspberry Pi and the onward march of Maker centric activities such as 3D printers, LASER cutters and robotics. But where will we be in five years? Will the classroom of the future be any different? Let's peer into our collective crystal ball and see what may become.

April 2020: A secondary school somewhere in the United Kingdom

Class 3B have sat down for their Maker Skills lesson and are learning about Electronics from their teacher. The class are all working using their Raspberry Pi 2 connected to a school network [1] which collects their work and centralises the task of administrating software to each of the 200 Raspberry Pi in the school. For their lesson the class are learning how to connect an LED (Light Emitting Diode) to the Raspberry Pi GPIO (General Purpose Input Output) using a few common components (LED, 220Ohm resistor and some male to female jumper wires) [2] and are shown how to use Python to control the GPIO using a simple sequence of code. The class is asked by their teacher to document their project using a Word Processor [3] installed on the school Raspberry Pi network and to produce a diagram of the project using an application called Fritzing[4]. The class complete this task using the tools provided and their work is saved to a network drive for later grading.

The bell sounds and the children move on to their next class, Art and Design. Today they are learning how to create art pieces that fuse traditional materials with digital. Jessica is a bright

and talented artist who has used an electrically conductive paint [5] along with a Raspberry Pi and a Makey Makey [6] to produce an interactive media piece which reacts to touch and changes the colour of a series of [7] ultra bright LEDs that are laid into the piece. Another student called James has built an Arduino [8] based robot that uses programming logic to draw polygons with random sizes and colours on to a large sheet of paper.

The bell once again rings to signal a change of lesson and class 3B are now in their music lesson, learning about musical composition [9] on their networked Raspberry Pi. Amanda is using a language called Ruby [10] to create beautiful music with a rich mixture of bass and samples. Amanda has also linked her music to Minecraft and has programmed a series of blocks and shapes to pulsate in time to the music.

After lunch it is time for class 3B to take part in Sports Day. Dexter and Sally are two of the fastest runners in school and they will be competing in the 100M sprint. They stand ready on their blocks, which use a sensor to monitor their presence. The firing pistol ricochets through the air and they are off! Dexter takes an early lead and is sprinting with great strides towards the line, but Sally is catching Dexter and it looks like it might be a close call. The two cross the line and it is indeed a close call, but who has won? The judges check the instant reply which was triggered by a sensor on the finish line, there was a Raspberry Pi camera running at 90fps capturing the finish line [11] and it looks like Sally has won by a few frames! Well done Sally!

It's the end of the day and class 3B pack away their belongings and head home with their homework to be completed and handed in to the school Pi network the following day.

Back in 2015

The class of tomorrow won't look too much different to today, but the contents of the lessons will shift to meet the needs of our children. Already we are seeing more Maker skills filtering down into Secondary schools, thanks to groups such as STEM (Science Technology Engineering and Maths) who will work with schools to introduce these core skills.

All of the technologies reference in this feature are real products and services that can be used in class today, with the vast majority of them being free software solutions that are supported by a growing and knowledgeable community.

If you have the time and the knowledge pass it on to the next generation of children and young adults, and help keep our classrooms as a bright and wonderful place for invention and innovation.

[1] PiNet <http://pinet.org.uk/>

[2] Raspberry Pi Resources <https://www.raspberrypi.org/resources/>

[3] LibreOffice <https://www.libreoffice.org/>

[4] Fritzing <http://fritzing.org/home/>

[5] Bare Conductive <http://www.bareconductive.com/>

[6] Makey Makey <http://makeymakey.com/>

[7] NeoPixels <http://www.adafruit.com/category/168>

[8] Arduino <http://www.arduino.cc/>

[9] Sonic Pi <http://sonic-pi.net/>

[10] Sonic Pi Lessons <http://bit.ly/1JXEe7z>

[11] Ultrasonic Sensors <http://bit.ly/1pAgEiP>

Automate the Boring Stuff with Python

Albert Sweigart

No Starch Press

ISBN: 978-1-59327-599-0

504pp.

£ 16.58

Published: April 2015

reviewed by Nigel Barker

This book has three goals. It provides a primer in basic programming concepts for the absolute beginner, it provides an introduction to the Python scripting language and it aims to inspire non programmers to take up scripting to improve their computing experience and impress their friends.

The book opens up with the story of someone working in a consumer electronics shop who saves his co-workers a couple of days' work by writing a script to compare the prices in their rival's catalogue spreadsheet with their own database.

I like these productivity hacks, even now, the ability to write a script that pulls data from different sources and manipulates text can make you the go to guy in an office full of Windows admins. I usually like to use bash, sed and awk for these little jobs, or occasionally Perl, so a gentle introduction to Python and some inspiring project ideas is a combination that appeals to me.

The books makes it clear that the Python tutorials that make up the first six chapters do not make a complete Learn Python course but instead concentrates just on the skills needed for the projects in part two with chapters for Flow Control, Functions, Lists, Dictionaries and String Manipulation.

Code samples are included throughout as well as examples using the IDLE development environment.

The book then transitions to the projects with further chapters on Regular Expressions and Reading and Writing Files. I appreciated the introductory tour through the world of Python, but the project based chapters covering web scraping and handling Word, Excel, pdf, csv and JSON files is where the book really takes off. This is where the inspired reader can get stuck in to automating the boring stuff.

And there's more. The book also has chapters for Keeping Time and Scheduling, Sending Email and Text Messages and Manipulating Images.

Each chapter has a summary, comprehension questions and ideas for further projects based on the concepts covered in that chapter. The editing is to a high standard.

Appendices cover using the pip tool for installing third party modules and running Python scripts in the Windows, OS/X and Linux environments as well as answers to the end of chapter questions.

The book has a helpful lie flat binding and physical quality is very good.

Al Sweigart has written other introductory Python books such as *Invent Your Own Computer Games With Python* and *Hacking Secret Ciphers With Python* and teaches programming to kids and adults. With this book he has found a focus for learning Python from scratch which appeals to adults rather than kids, as we all want to find better ways of handling the boring stuff in the office.

So far, this book has inspired me to start work on a Python script to pull the most interesting data out of the server metrics csv files I am sent daily to start building per host history files. I currently review these metrics manually in Excel each day.

I'm also going to use Python for my next attempt to consistently name my collection of mp3 files. Both projects take their inspiration directly from reading this book.

Eloquent JavaScript, 2nd Edition

Marijn Haverbeke

No Starch Press

ISBN: 978-1-59327-584-6

472pp.

£ 17.24

Published: December 2014

reviewed by John Collins

This book is a very basic introductory book on JavaScript apparently introducing it to the complete beginner at programming.

I think it probably introduces it well enough, but it's hard to see that a beginner programmer should be starting with a language intended primarily to add client-side functionality to web pages myself.

The first half of the book describes the features of the language from the ground up, taking the reader through the various basic data types, functions and control structures, objects and arrays, advanced functions and object methods. I'm not sure that I agree with the way it's laid out in some places, for example talking about closures only 8 pages into first talking about functions seems wrong to me.

Following this are sections describing writing whole projects in JavaScript, debugging, a whole chapter on regular expressions and finally a chapter on splitting code into modules.

The second half of the book describes interaction with the browser with chapters on the Document Object Model, Event Handling, Drawing operations, HTTP operations and Form Handling, interspersed with examples.

Personally I don't feel it goes into nearly enough detail in some places, for example in details of HTML fields and form handling together with referencing and adjusting elements in the Document Object Model, whilst it dives off into quite advanced concepts in other places, like parsing XML objects on the fly.

I think that the O'Reilly JavaScript manual is probably a better bet as it exhaustively covers the entire language and every feature of every construct. In addition references for HTML and CSS will be necessary for any serious web development.

Effective Modern C++**Scott Meyers****O'Reilly Media****ISBN: 978-1-4919-0399-5****336pp.****£ 20.35****Published: November 2014****reviewed by John Collins**

This is a very clearly written book aimed at introducing the effective, efficient and safe use of the new features of C++, including especially the C++14 features. It is written by an author who has contributed a considerable body of text documenting C++ and how to write it effectively.

C++ has evolved considerably since its original definition in the 1998 standard (known as C++98). The next major standard was the 2011 standard, known as C++11. Further revisions, although perhaps not as far-reaching as before, were introduced in 2014, with the standard known as C++14. However most compilers the readers may encounter currently only support C++11, To run this using the GNU compiler, you will need to include the option `-std-c++11` when compiling.

The book does assume some knowledge of the new features, so that seeing `'&&'` and `'auto'` won't take you by surprise. Also you will need to understand the new features of the standard library. If you aren't familiar with these you could do worse than get the same author's `'Overview of the New C++ (C++11/14)'` which can be obtained online as a PDF if you need bringing up to speed. Alternatively a free PDF of the current version of the original book by Bjarne Stroustrup is also available, but that goes through absolutely everything from scratch including things which seasoned C++ programmers will know.

Several of the new features of the language are designed to improve program efficiency, always an issue with C++ which acted as a deterrent to writing code in C++ rather than C and this book highlights these features.

The book is packed with illustrations of how and why each new feature is used, and how you should adjust your existing code to take maximal advantage of the new features, avoiding pitfalls and possibly dangerous constructs which the author suggests be left well alone.

The new definitions of the language and standard library include thread support which this book explains well how to use.

I learnt quite a lot from this book and would thoroughly recommend it for serious users of C++.

Build an HTML5 Game

Karl Bunyan

No Starch Press

ISBN: 978-1-59327-575-4

224pp.

£ 19.99

Published: March 2015

reviewed by Gavin Inglis

The No Starch publishing powerhouse occupies a more playful version of O'Reilly's traditional domain: tech books on the open source and creative side, with a healthy range aimed at inquisitive kids and parents who would like them to learn programming. They also have a surprising number of works dedicated to Lego.

HTML5 game authoring is a natural fit for No Starch. It is, however, an awkward topic for a book, depending as it does on a working knowledge of not simply HTML itself, but also Cascading Style Sheets and JavaScript.

Karl Bunyan has taken a bold approach by building a single game from scratch over the book's eight chapters – and at less than 200 pages this is no mean feat. He assumes a general familiarity with CSS and JavaScript, but explains the purpose of each new chunk of HTML and script as it is added. It's an in-depth and useful approach. New CSS code receives less explanation, but is probably more intuitive. In theory, one could learn these technologies solely through the examples in 'Build an HTML5 Game', but a few hours on the basics ahead of time will vastly increase your chances of getting through this particular book.

The game itself is a bubble-shooter in the tradition of Puzzle Bobble or Bust-a-Move. The final version as presented is unlikely to win any awards – or indeed keep you playing for more than five minutes – but the value of this single, fully-worked example is to lay out the entire process with nothing skipped over. It not only covers every step but lets a newbie see that, if they persist, there is light at the end of the long development tunnel.

The code can be downloaded separately, but for deep learning it's worth going through the process and typing in as you read, 1970s magazine style. The game takes shape slowly but logically: laying out the screen; sprites and animation; collision detection; game logic; visual enhancements; levels, sound and scores. Towards the end are welcome sections on optimisation and security.

Along the way, the text considers how the game is to be delivered, with early warnings about testing on different browsers and mobile platforms, discussing OSX version compatibility, and the fragmentation of Android. Time is taken for an introduction to the jQuery and Modernizr libraries, downloading a custom build of Modernizr to keep things lean.

This might look like a good introduction to programming for an enthusiastic teenager, but they are likely to stumble on the Model/View/Controller principles (p13) and crash hard against the discussion of library specifics (p15). On the other hand, this could be a good second book for a youngster with some confidence and experience – and No Starch have other options in that area.

Overall, 'Build an HTML5 Game' is a refreshingly thin book with a solid approach and a wealth of practical content. It's not a breezy read, but well structured and will provide an excellent learning experience for readers who persist.

The GNU Make Book**John Graham-Cumming****No Starch Press****ISBN: 978-1-59327-649-2****256pp.****£ 16.88****Published: April 2015****reviewed by Paul Waring**

GNU Make is an important piece of infrastructure in the open source ecosystem, but do you fully understand its capabilities? The online documentation makes for a good starting point, but this book promises to take you to the next level.

The first chapter is a quick refresh of some concepts, such as the different types of variables available in Make, built-in functions and the differences between recent versions of make. There are no reasons to use a build system, discussions of Make versus other software etc. that you would get from an introductory text, and the author makes it clear up front that this chapter is not a substitute for reading the documentation provided with the software.

Chapter two covers debugging, including a useful section on how to implement tracing if you are using a version below 4.0. Some of the examples seem like highly convoluted hacks, but this is largely due to some of the quirks of Make rather than any fault of the author.

The third chapter is dedicated to building and, perhaps more important in Make, rebuilding. Lots of useful corner cases and scenarios are covered beyond the standard ‘have any dependencies changed?’ rule. Particularly useful examples cover rebuilding when environment variables have changed (e.g. CPPFLAGS), when the contents of a file have changed (which does not always result in a timestamp update) and automatically generating dependency rules for related resources such as C header files.

Chapter four takes us through a variety of problems and pitfalls faced by maintainers as projects increase in size and complexity. One thing I learnt from this is that Make’s ‘ifndef’ statement does not actually mean ‘if not defined’ but ‘if not defined or defined and empty’ - a distinction I would not otherwise been aware of. The fact that this chapter is by far the longest in the book gives you an indication of just how confusing Make can be, even for the intermediate or expert user.

The next chapter demonstrates ways to ‘push the envelope’ with Make by extending its language through the creation of new functions. Whilst interesting, I did struggle to think of situations where, for example, the ability to perform division in a Makefile would actually be useful, but should you wish to do so the author has described the solution in detail.

The book concludes with a chapter describing the author’s GNU Make Standard Library, a collection of useful extensions to Make started by the author. A lot of effort has clearly gone into creating and documenting this library and it will save you reinventing the wheel on every large project.

If you need to go beyond the online documentation for Make, you should buy this book - it is the best I have reviewed for some time.

Black Hat Python

Justin Seitz

No Starch Press

ISBN: 978-1-59327-590-7

192pp.

£ 23.50

Published: December 2014

reviewed by Paul Waring

As a developer and system administrator, I'm always interested in how I can probe systems and software under my control for vulnerabilities. Python seems as good a choice as any, so this book sounded like it would be right up my street.

The first chapter takes us through setting up a sandboxed environment to write and test Python code. This was disappointing in three ways: the choice of VMWare (open source alternatives are available and packaged for most distributions), telling readers download an image from an untrusted website without SSL (an odd suggestion for a security book) and selecting a commercial IDE when there are excellent open source alternatives available. I decided to fire up a Debian install instead, which seemed to meet all the requirements.

Chapter two covers the various network functions available in Python, on the grounds that many Linux distributions may not have advanced network tools but Python is often installed by default. Simple client and server examples using both TCP and UDP are used as starting points, followed up by an implementation of Netcat and a TCP proxy. Whilst these are interesting, there is a lot of time spent on the code and very little on how to use it either for testing or exploitation. The author then moves on to discuss a library for accessing the SSH protocol on the basis that an SSH client is not always installed, but such a machine probably won't allow you to use the 'pip install' command either.

The next chapter takes us through the creation of raw sockets and sniffing traffic on the network. The author gradually builds up a script for sniffing network traffic, although this kept failing with various errors on my test VM. Script problems aside, the chapter provides a reasonable overview of IPv4 headers and ICMP messages (IPv6 is not even mentioned at this stage).

Chapter four introduces Scapy, a Python library for manipulating network packets. An example using ARP poisoning is given, although the details of how this technique works at a lower level are omitted so the reader will need to go elsewhere to fully understand it.

Chapter five covers web applications, and is where I would expect the bulk of information of interest to reside. Unfortunately there was very little detail with only two examples, one general and obvious (looking for 'interesting' files by trying URLs) and another which effectively involves brute forcing a login form for a specific application, but with no information on how to generate a useful wordlist.

The next two chapters cover Burp and GitHub, and were a little too specific for my liking. Not only is a lot of knowledge assumed (e.g. that the reader has used Burp before) but the topics are rushed through in a few pages (a grand total of nine for GitHub) and I came away none the wiser.

Chapters eight, nine and ten focus solely on Windows, demonstrating how to log keystrokes, take screenshots and control Internet Explorer, as well as privilege escalation techniques. These were by far the most interesting chapters of the book, and it's a shame that similar ones

weren't included for Linux given its popularity as a server operating system and the need for root privileges if you want to place an interface in promiscuous mode.

The final chapter swerves in a totally different direction, covering what the author terms 'offensive forensics'. Whilst an interesting topic, it doesn't seem to fit with the other chapters and ten pages isn't enough to do much more than provide a very general introduction.

Overall this book feels rushed, with lots of low level knowledge assumed and major topics skimmed over in just a few pages. It needs more focus, ideally sticking to one area (web applications, operating systems, computer forensics) instead of trying to cover them all in under 200 pages.

Contributors

Nigel Barker lives in East Lothian and works at Dell SecureWorks. His first exposure to Unix was when the comic distributor he worked for bought a Texas Instruments TI-1500 mini computer in 1989.

John Collins is a former UKUUG council member who has recently retired from Xi Software Ltd which specialised in System Management Tools for UNIX and Linux systems. He is now an Astrophysics Research Student at the University of Hertfordshire.

Gavin Inglis works in Technical Infrastructure at the EDINA national data centre. He also writes interactive text games for web and mobile platforms. Not all of them feature zombies.

Kimball Johnson has been programming since a very early age, starting with BBC Micros, then MS DOS and Windows Systems, however was enlightened with a copy of Debian GNU/Linux Woody at university. From this developed an affinity to Systems Administration, but like all good admins he is lazy and so tries to automate as much of his job as possible, and now follows the way of the Infrastructure as Code.

Jane Morrison is Company Secretary and Administrator for FLOSS UK, and manages the FLOSS UK office at the Manor House in Buntingford. She has been involved with FLOSS UK administration since 1987. In addition to FLOSS UK, Jane is Company Secretary for a trade association (Fibreoptic Industry Association) that she also runs from the Manor House office.

Les Pounder works closely with North Western Linux and Free Software groups to promote the use of Open Source software as opposed to proprietary software. He is also the organiser of UCubed, a free Linux and open source event in Manchester, and an organiser of Barcamp Blackpool and Blackpool Geekup, and has been head of crew at Oggcamp. He writes for Linux Format magazine and contributes to Linux podcasts including Fullcircle, Ubuntu UK Podcast and Linux Outlaws.

Paul Waring currently works in teaching and software support at a large UK university. Outside of work he can usually be found filing documentation bugs against various open source and free software projects. He also edits the FLOSS UK newsletter.

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