

- John Baldwin • FreeBSD Developer, Member of the FreeBSD Core Team and Chair of *FreeBSD Journal* Editorial Board.
- Bryan Drewery • Senior Software Engineer at EMC Isilon, member of FreeBSD Portmgr Team, and FreeBSD Committer.
- Justin Gibbs • Founder of the FreeBSD Foundation, President of the FreeBSD Foundation, and a Software Engineer at Facebook.
- Daichi Goto • Director at BSD Consulting Inc. (Tokyo).
- Joseph Kong • Software Development Engineer at Amazon Web Services, author of *FreeBSD Device Drivers* and *Designing BSD Rootkits*.
- Dru Lavigne • Director of Storage Engineering at iXsystems, author of *BSD Hacks* and *The Best of FreeBSD Basics*.
- Michael W Lucas • Author of *Absolute FreeBSD*.
- Ed Maste • Director of Project Development, FreeBSD Foundation.
- Kirk McKusick • Treasurer of the FreeBSD Foundation Board, and lead author of *The Design and Implementation* book series.
- George V. Neville-Neil • Director of the FreeBSD Foundation Board, and co-author of *The Design and Implementation of the FreeBSD Operating System*.
- Philip Paeps • Secretary of the FreeBSD Foundation Board, FreeBSD Committer, and Independent Consultant.
- Kristof Provost • Treasurer of the EuroBSDCon Foundation, FreeBSD Committer, and Independent Consultant.
- Hiroki Sato • Director of the FreeBSD Foundation Board, Chair of Asia BSDCon, member of the FreeBSD Core Team, and Assistant Professor at Tokyo Institute of Technology.
- Benedict Reuschling • Vice President of the FreeBSD Foundation Board, a FreeBSD Documentation Committer, and member of the FreeBSD Core Team.
- Robert N. M. Watson • Director of the FreeBSD Foundation Board, Founder of the TrustedBSD Project, and University Senior Lecturer at the University of Cambridge.

S&W PUBLISHING LLC

PO BOX 408, BELFAST, MAINE 04915

- Publisher** • Walter Andrzejewski
walter@freebsdjournal.com
- Editor-at-Large** • James Maurer
jmaurer@freebsdjournal.com
- Copy Editor** • Annaliese Jakimides
- Design & Production** • Dianne M. Kischitz
dianne@freebsdjournal.com
- Advertising Sales** • Walter Andrzejewski
walter@freebsdjournal.com
Call 888/290-9469

FreeBSD Journal (ISBN: 978-0-615-88479-0) is published 6 times a year (January/February, March/April, May/June, July/August, September/October, November/December).

Published by the FreeBSD Foundation,
2222 14th Street, Boulder, CO 80302
ph: 720/207-5142 • fax: 720/222-2350
email: info@freebsd.foundation.org

Copyright © 2019 by FreeBSD Foundation. All rights reserved. This magazine may not be reproduced in whole or in part without written permission from the publisher.

34 and Counting

Welcome to the July/August issue of *FreeBSD Journal*. At our house, this time of the year heralds an end to summer break and the beginning of a new school year. Many of FreeBSD's future developers are also headed back to school this fall, but they may need some help finding FreeBSD. Will you join me in spreading the word to our next generation of developers? Consider volunteering at a computer club at a local high school or asking to give a talk at an ACM chapter.

Spreading news and information about FreeBSD IS *FreeBSD Journal's* mission. If you are doing something cool with FreeBSD or working on a new feature, we'd love to include your story in a future issue. To get started, send us an email with your topic to info@freebsdjournal.com. If there are any topics you would like to hear more about, drop us a note at the same address. Our editorial board will work on finding authors who work in that space. (We are always open to author suggestions too!)

Lastly, I'd like to take this opportunity to thank the *Journal's* previous Editorial Board chair, George Neville-Neil. George first approached me about his idea for the *Journal* in the summer of 2013. I was familiar with George's experience with *ACM Queue*, so I knew he had a good handle on what would be required to get *FreeBSD Journal* up and going. George's enthusiasm was contagious, and his drive helped the Editorial Board get over the hump in the early years as we gained our footing. Thirty-four issues later, the *Journal* is going strong and the Editorial Board is excited to continue carrying forward George's vision from six years ago.

John Baldwin

Chair of the *FreeBSD Journal* Editorial Board