Software in the Public Interest, Inc.
2019 Annual Report

July 13, 2020



Software in the Public Interest, Inc.



To the membership, board and friends of Software in the Public Interest, Inc:

As mandated by Article 8 of the SPI Bylaws, I respectfully submit this annual report on the activities of Software in the Public Interest, Inc. and extend my thanks to all of those who contributed to the mission of SPI in the past year.

– *Michael Schultheiss, SPI President*

Software in the Public Interest, Inc.

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Chapter 1

President's Welcome

The mission of SPI is to help substantial and significant open source projects by handling their non-technical administrative tasks so that they aren't required to operate their own legal entity.

During the current board term, SPI (its officers, directors, contractors and volunteers) has continued to refine and improve its processes and response time. Treasury sprints prior to in-person board meetings continue to be highly productive and I strongly recommend they continue going forward when in person meetings are again practical. SPI Vice President Stephen Frost has been instrumental in refining our contracting process and has been an excellent liaison with SPI's legal counsel.

SPI continues to fill a needed role in the free and open source software community. Sister organizations exist and are not competitors for hosting projects but have differing roles in the ecosystem. We welcome associated projects to freely move to other umbrella organizations if they need more than SPI's relatively hands off manner can provide as well as welcome any projects who prefer to join SPI due to our focus.

SPI had its financial statements independently audited for the 2018 calendar year and plans to continue having its financial statements independently audited annually going forward.

The SPI board is extremely thankful for the work Martin Michlmayr has done working with SPI's auditor and streamlining our bookkeeping. Martin has been instrumental in releasing periodic treasury reports, updating the financial toolset and assisting the treasury team with data validation.

Thank you again to all SPI officers, directors, contractors, volunteers and members. SPI continues to thrive thanks to your contributions.

– Michael Schultheiss, SPI President

Chapter 2

Committee Reports

2.1 Membership Committee

2.1.1 Statistics

On January 1, 2019 we had 212 contributing and 1082 non-contributing members. On December 31, 2019 there were 222 contributing members and 1138 non-contributing members. This is an increase of 10 contributing members and an increase of 56 non-contributing members.

Chapter 3

Board Report

3.1 Board Members

Board members as of January 1, 2019:

- Jimmy Kaplowitz (President)
- Luca Filipozzi (Vice President)
- Tim Potter (Secretary)
- Michael Schultheiss (Treasurer)
- Stephen Frost
- Dimitri John Ledkov
- Martin Michlmayr
- Andrew Tridgell
- Martin Zobel-Helas

Board members as of December 31, 2019:

- Michael Schultheiss (President)
- Stephen Frost (Vice President)
- Tim Potter (Secretary)
- Martin Zobel-Helas (Treasurer)
- Luca Filipozzi
- Forrest Fleming
- Chris Lamb
- Héctor Orón Martínez
- Andrew Tridgell

Advisors to the board as of December 31, 2019:

- Software Freedom Law Center (SFLC), legal counsel
- Sam Hartman, Debian Project representative

- Robert Treat, PostgreSQL Project representative

3.2 Board Changes

Changes that occurred during the year:

- Martin Michlmayr resigned from the board in March 2019. We'd like to thank Martin for his contributions!
- The board appointed Renee Phillips as an interim director in April 2019.
- The terms for Dimitri John Ledkov, Jimmy Kaplowitz, Renee Phillips and Martin Zobel-Helas expired in July 2019. Martin sought, and obtained, re-election. We'd like to thank Dimitri John Ledkov, Jimmy Kaplowitz and Renee Phillips for their work on the board. Forrest Fleming, Chris Lamb and Héctor Orón Martínez joined the board as part of the same election.
- On August 12, 2019 the board voted to appoint the following officers:
  - President: Michael Schultheiss
  - Vice President: Stephen Frost
  - Secretary: Tim Potter
  - Treasurer: Martin Zobel-Helas

3.3 Elections

A board membership election was conducted in July 2019. There were 4 board seats up for election. Nominations were received from Forrest Fleming, Chris Lamb, Héctor Orón Martínez and Martin Zobel-Helas. Since there were 4 nominations for 4 board seats, no vote was required and all four candidates were elected for a 3 year term.

3.4 Face-to-face Meetings

The SPI board held two face-to-face meetings in 2019.

At the end of February and the beginning of March, a treasurer sprint was held for two days, followed by a two-day board meeting. Meeting space was kindly provided by the Fintech Open Source Foundation FINOS) and Crunchy Data.

During the treasurer sprint, the team worked on closing the books for 2018. There was also discussion about improving the processes and workflows and creation more documentation.

During the board meeting, topics such as IT, contractors, budgets and the intake process were discussed.

The board held another meeting in November 2019 with the newly elected board. Meeting space was provided by Hudson River Trading in New York. The board discussed the results from the first external audit, contractors, policies and documentation, infrastructure, and other topics. During a preceding treasurer sprint, outstanding payment requests were worked on.



Figure 3.1: Face-to-face meeting in New York (November 2019). Front (left to right): Chris Lamb, Héctor Orón Martínez, Luca Filipozzi, and Tim Potter. Back: Forrest Fleming, Stephen Frost, Martin Zobel-Helas, and Michael Schultheiss

Chapter 4

Treasurer's Report

This report uses a cash-based method of accounting, recording donations when deposited (not when the check was written or received by us) and recording expenses when sent or scheduled for payment (not when incurred).

4.1 Income Statement

This covers the Period January 1, 2019 – December 31, 2019

Income	
Ordinary Income	
0 A.D.	4,165.73
Ankur.org.in	0.00
Aptosid	19.00
Arch Linux	17,426.45
ArduPilot	64,213.60
Chakra	273.23
DebConf16	950.00
DebConf17	18,800.00
DebConf18	9,656.45
DebConf19	108,175.55
Debian	343,753.47
Drizzle	0.00
FFmpeg	10,435.99
Fluxbox	30.23
freedesktop.org	147.25
Glucosio	19.00
GNU TeXmacs	209.00
GNUstep	19.00
haskell.org	15.20
Jenkins	7,781.45
LibreOffice	41,823.22
MinGW	194.75
NTPsec	38,019.00
OFTC	19.00
Open Bioinformatics Foundation	28,028.10
OpenEmbedded	9,695.03
Open MPI	9.50

Open Voting Foundation	565.72
OpenSAF	2,976.65
OpenVAS	19.00
OpenWrt	2,172.93
OpenZFS	52,870.79
Performance Co-Pilot	7,127.85
PostgreSQL	16,961.65
Privoxy	4,575.90
Swathanthra Malayalam Computing	99.75
SPI General	84,428.28
systemd	130.62
The Mana World	2.85
Tux4Kids	213.75
X.Org	44,551.90
YafaRay	0.00
Total Ordinary Income	920,576.84
Registration Fees	
DebConf19	12,751.85
OpenEmbedded	11,145.18
OpenZFS	4,512.50
Total Registration Fees	28,409.53
Program Services Income	
ArduPilot	6,550.00
DebConf17	200.00
DebConf18	310.00
DebConf19	2,470.00
LibreOffice	4,000.00
OpenZFS	5,200.00
Total Program Services Income	18,730.00
Interest Income	
Ameriprise Brokerage	249.65
Chase BusSelect High Yield Savings	9.54
Fifth Third Business MM 128	14.96
Key Business Gold MM Savings	2,222.52
Key Business Platinum MM Savings	260.22
Total Interest Income	2,756.89
Gross Income	970,473.26
Expenses	
Ordinary Expenses	

```
0 A.D.
      230.48    Banking fees
      764.62    IT
      107.79    Membership
      522.54    Travel
    --------
    1,625.43

aptosid
        0.74  Banking fees

Arch Linux
      782.49    Banking fees
      582.91    Conferences
    3,325.59    IT
    5,804.69    Travel
    --------
   10,495.68

ArduPilot
    2,306.07    Banking fees
    1,453.56    Conferences
    7,740.90    IT
   17,488.06    Software development
    7,649.34    Travel
   ---------
   36,637.93

Chakra
        2.21    Banking fees
      431.15    IT
      ------
      433.36

DebConf17
    2,950.86    Travel

DebConf18
   11,779.66    Travel

DebConf19
      781.90    Banking fees
   23,445.87    Conferences
      122.11    IT
  132,833.61    Travel
  ----------
  157,183.49

Debian
    2,245.25    Banking fees
      975.11    Conferences
   98,125.90    IT
   19,500.00    Internships
    5,430.00    Legal
```

```
    6,300.00    Training
   35,932.80    Travel
  ----------
  168,509.06

Drizzle
    6,023.60    Internal transfer (to SPI general fund)
      125.00    Legal
    --------
    6,148.60

FFmpeg
      210.38    Banking fees
       51.16    Office
    3,690.09    Travel
    --------
    3,951.63

Fluxbox
        0.86    Banking fees

freedesktop.org
        7.58    Banking fees
     (541.01)   Internal transfer (from X.Org)
    8,756.20    IT
    --------
    8,222.77

FreedomBox Foundation
       23.52    Software development

GNU TeXmacs
        8.00    Banking fees

haskell.org
        1.69    Banking fees

Jenkins
       57.60    Banking fees
      276.61    Conferences
   19,500.00    Internships
      325.00    Legal
    2,464.10    Travel
   ---------
   22,623.31

LibreOffice
      184.16    Banking fees
    4,729.03    Conferences
      174.83    IT
      623.05    Marketing
   36,599.53    Travel
   ---------
   42,310.60
```

```
MinGW
       10.41    Banking fees
      325.00    Legal
      ------
      335.41

NTPsec
        1.50    Banking fees

Open Bioinformatics Foundation
       63.85    Banking fees
    1,385.99    IT
    6,500.00    Internships
    1,843.95    Travel
    --------
    9,793.79

Open MPI
        0.75    Banking fees

Open Voting Foundation
        6.68    Banking fees

OpenEmbedded
      192.24    Banking fees
    2,350.74    Conferences
    8,180.76    Travel
   ---------
   10,723.74

OpenSAF
       65.79    Banking fees

OpenWrt
       89.05    Banking fees
    1,218.53    Conferences
    1,278.98    Travel
    --------
    2,586.56

OpenZFS
      138.51    Banking fees
   36,803.86    Conferences
   10,909.77    Internal transfer (to SPI general fund)
    1,971.11    IT
      350.00    Insurance
      194.98    Travel
   ---------
   50,368.23

Performance Co-Pilot
      141.01    Banking fees
    1,363.01    Conferences
```

```
    2,516.19    Travel
    --------
    4,020.21

PostgreSQL
      223.77    Banking fees
   13,139.98    Conferences
    8,182.52    IT
      789.00    Marketing
    2,037.28    Travel
   ---------
   24,372.55

Privoxy
      161.01    Banking fees

Swathanthra Malayalam Computing
        5.77    Banking fees

SPI
   41,201.00    Accounting
    2,318.85    Banking fees
       76.20    Conferences
  (16,934.21)   Internal transfers
    3,255.27    IT
    2,133.00    Insurance
      722.00    Legal
      775.00    Membership
    1,760.32    Office
   25,502.63    Travel
   ---------
   60,810.06

systemd
        5.17    Banking fees
    2,756.36    Conferences
    1,027.28    IT
    2,237.89    Marketing
    4,457.67    Travel
   ---------
   10,484.37

The Mana World
        0.41    Banking fees

Torch
        0.84    Internal transfer (to SPI general fund)

Tux4Kids
        0.85    Banking fees

X.Org
      389.44    Banking fees
      541.01    Internal transfer (to freedesktop.org)
```

2,863.35	IT		
2,250.00	Internships		
1,750.00	Training		
5,897.42	Travel		
13,691.22			
YafaRay			
7.91	Banking fees		
773.55	IT		
781.46			
Total Expenses		661,118.39	
Net Income		309,354.87	

4.2 Balance Sheet

Balance Sheet as of December 31, 2019

ASSETS			
Current Assets			
Ameriprise Cash Mgmt Acct			13,863.73
Bank of America Business Advantage Checking			233,347.73
Chase Business Select High Yield Savings			5,343.48
Chase Performance Business Checking			122,869.61
Fifth Third Business Elite Checking (Debian)			21,656.69
Fifth Third Business Elite Checking (SPI)			35,755.72
Fifth Third Business Elite Checking Wiretransfer			179,276.49
Fifth Third Business Money Market 128			29,987.84
KeyBank Basic Business Checking			1,000.00
Key Business Gold Money Market Savings			1,765,771.28
Key Business Platinum Money Market Savings			0.00
Key Business Reward Checking			25,585.77
PayPal (Debian)			10,873.02
PayPal (SPI)			25,929.59
Total Current Assets			2,471,260.95
TOTAL ASSETS			2,471,260.95
LIABILITIES AND EQUITY			
General and current liabilities			0.00
Equity			
Reserves held in trust			
0 A.D.		34,970.84	
Ankur.org.in		2,819.84	
aptosid		503.76	

Arch Linux	344,144.42	
ArduPilot	97,923.23	
Chakra	393.72	
DebConf 14	35,962.78	
DebConf 15	70,218.51	
DebConf 16	(14,445.06)	
DebConf 17	1,887.04	
DebConf 18	30,263.98	
DebConf 19	(28,369.62)	
Debian	636,774.55	
FFmpeg	121,716.03	
Fluxbox	1,027.33	
Glucosio	20.84	
GNU TeXmacs	1,501.86	
GNUstep	161.50	
haskell.org	16,550.65	
Jenkins	17,064.72	
LibreOffice	35,614.79	
MinGW	4,019.87	
NTPsec	38,649.17	
OFTC	19.00	
Open Bioinformatics Foundation	102,732.48	
Open MPI	645.65	
Open Voting Foundation	702.81	
OpenEmbedded	10,848.54	
OpenSAF	2,910.86	
OpenVAS	92.49	
OpenWrt	8,248.06	
OpenZFS	12,215.06	
Performance Co-Pilot	8,460.84	
PostgreSQL	138,787.42	
Privoxy	6,150.85	
Swathanthra Malayalam Computing	5,857.30	
systemd	179,650.45	
The Mana World	2.44	
Tux4Kids	16,497.49	
X.Org	97,158.67	
YafaRay	5,448.50	
Total held in trust		2,045,803.66
General reserves		425,457.29
Total Equity		2,471,260.95
TOTAL LIABILITIES AND EQUITY		2,471,260.95

Chapter 5

Member Project Reports

5.1 New Associated Projects

5.1.1 Arch Linux 32

Archlinux32 is a community maintained fork of the Arch Linux distribution for Intel 32-bit (IA-32) type of CPUs (similar of what ArchlinuxARM is doing for ARM-based CPUs).

The official support for Intel 32-bit (IA32) has been dropped as of November 2017. Archlinux32 plays the catch-up game with upstream Arch Linux to still provide a usable 32-bit version of Arch Linux.

Archlinux32 has a sophisticated build system keeping track of all dependencies between packages. This is especially challenging as important packages can stop building any time and people expect packages to be on the bleeding edge (the very purpose of Arch Linux).

5.1.2 OpenSAF

OpenSAF is an open source community with projects focused on high availability (HA) middleware. The goal of OpenSAF projects is to develop HA middleware that is consistent with the Service Availability Forum (SA Forum) specifications.

5.1.3 Translatewiki.net

Translatewiki.net is a translation community and a localization platform for free and open source projects. Our mission is to streamline the management of software interface translations, so that FOSS projects, both small and large, are accessible to people around the world, in a language they prefer to use. For FOSS projects, we provide a turn-key solution for getting their software translated in hundreds of languages and advice on software internationalization. For volunteer translators, we provide a unified process to translate many FOSS projects — no need to request permissions, email files or work with version control systems.

5.2 Projects No Longer Associated with SPI

- Drizzle was fork of the MySQL project originally made in 2008. The project has been defunct for many years and is no longer under active development.
- Freedesktop.org merged its efforts with X.Org, an SPI associated project.
- Jenkins is a founding member of the Continuous Delivery Foundation (CDF) and is in the process of moving its operational functions over to the CDF.

- Torch is no longer in active development and has been obsoleted by PyTorch. PyTorch is not an associated project of SPI.

5.3 Updates from Associated Projects

5.3.1 0 A.D.

0 A.D. (pronounced "zero ey-dee") is a cross-platform, real-time (RTS) game of ancient warfare. It is a historically-based war/economy game, in which the player must lead an ancient civilization, gather resources from the map, and raise a military force to conquer enemy factions. 0 A.D. is open source software licensed under the GPL, and its art and sound assets are licensed under CC BY-SA. It is developed by Wildfire Games, a global community of game developers.

In 2019, work was done to improve unit motion on the map and speed up path finding, as well as to update the game's JavaScript engine to SpiderMonkey 45. Many bugs were fixed, including memory leaks, and measures were taken to improve build times, ensure smoother integration with GNU/Linux, and to ensure better code quality and readability. Improvements were also made to more easily integrate new features to the interface, and to support UTF-8, allowing for better internationalization and localization.

Many art assets were added and improved, including models, textures and animations for units such as archers, slingers, and chariots, as well as flora and fauna, such as cattle and bamboo. Improvements were made on models for several buildings, on terrain textures and on effects for snow and clouds. Water reflection was improved as well.

Last but not least, members of Wildfire Games attended several FOSS community events in 2019, and presented the game to attendees at FOSDEM (Brussels, Belgium), Capitole du Libre (Toulouse, France), JDLL (Lyon, France) and Graphik Labor (Rennes, France). The game was also shown at events at two companies (Avanade and Sogyo). Members of our community also created an online tournament and created online videos about the game. Taken together, these outreach efforts helped raise awareness of 0 A.D. and facilitated recruitment of developers.

We wish to extend our thanks to our generous donors and to SPI for helping us achieve this progress.

Submitted by Aviv Sharon

5.3.2 Ankur.org.in

Ankur.org.in is a group of volunteers who collaborate to promote localization and internationalization with the specific aim of improving usage of Bengali in free and open source projects.

Ankur.org.in has been extending the focus from content translation and UX inputs to the topic of preparing the local media and organizations to understand how to investigate and identify topics related to false/fake news. The volunteers have organized 4 virtual workshops around technical interventions and provided knowledge transfer from what is prevalent in English/mainstream media into regional/vernacular. Our work on translation of free and open source software projects continue albeit at a reduced scope than earlier years.

Submitted by Sankarshan Mukhopadhyay

5.3.3 Arch Linux

This year, we released pacman 5.2 that includes key discovery through Web Key Directory (WKD), support for meson and many other improvements. Following this, Arch Linux switched the compression algorithm for packages to multi-threaded zstd which resulted in great speed improvements during (de)compression. We also made remarkable progress on the reproducible builds efforts for Arch Linux including reproducibility fixes and development of multiple tools — a warm thanks to the reproducible builds project and Debian.

On the 5th and 6th of October 2019, team members attended the first internal Arch Conf in Berlin, Germany including workshops, discussions and hack sessions. The conference was a huge success and led to great improvements and momentum. Throughout the year, we also participated in various other events like CCC, FrOSCon and FOSDEM where we hacked on our projects in devrooms, held presentations and met our community.

In preparation for the election of a new project leader in February 2020, we reworked our election procedure, including a two year term for future project leaders.

Submitted by Levente Polyak

5.3.4 Arch Linux 32

In 2019 we managed to split the set of supported architectures into i486, i686 and pentium4 to serve different flavors of old CPUs:

- i486 is currently text-based and very limited
- i686 is slightly behind the main architecture and supports MMX/SSE
- pentium4 is the main architecture supporting SSE2

Also in 2019 we stabilized and improved the infrastructure and build machines.

Submitted by Andreas Baumann

5.3.5 ArduPilot

ArduPilot is a cross-platform free software autopilot project for a wide range of robotic vehicles. ArduPilot continues to thrive, with a global and growing community of users, partners and developers. Significant effort over the past year has seen consolidation onto ChibiOS RTOS, and support for many new hardware targets and peripherals. Continued evolution of the onboard Lua scripting engine is providing great flexibility, particularly for higher performance boards such as STM32H7.

The 2019 Developers Conference was a great success — the largest physical conglomeration of ArduPilot developers yet.

Submitted by James Pattison

5.3.6 Chakra

Chakra is a GNU/Linux distribution with an emphasis on KDE and Qt technologies that focuses on simplicity from a technical standpoint and free software.

In 2019 we deployed a new principal website for our project. While the outside is somewhat similar to the previous website, the inside is vastly different. New contributors can now easily set up a local development environment and submit merge requests. Existing contributors are given more control and insight into the processes involved — from the development of new code until its deployment, by adapting continuous integration, delivery, and deployment.

We have also spent a significant amount of effort toward defining standard workflows for our other development processes, leveraging the same continuous software development practices.

Submitted by Hans Tovetjärn

5.3.7 Debian

During 2019, Debian released Debian 10 (codename buster). Debian held DebConf, its annual gathering in Curitiba, Brazil, from July 14 to 27, 2019, as well as several Mini DebConf events around the world.

For Debian, 2019 was a year filled with various proposals for improving our workflow and creating a more welcoming community to help continue to attract new members.

Submitted by Sam Hartman

5.3.8 FFmpeg

FFmpeg is a complete, cross-platform solution to record, convert and stream audio and video. It is used as the platform foundation of many projects dealing with multimedia, both open source and proprietary, and used extensively by several web-based multimedia conversion and processing services.

In the year 2019 FFmpeg delivered a formal release (4.2) and many security updates of old releases. A complete list of changes can be found in the changelog. Also, as usual, FFmpeg joined the GSoC program, with total of six assigned projects. FFmpeg attended various conferences and meetups during the year. Several developers traveled to represent and connect the project with our users and fellow open source projects. These include FOSDEM in Brussels, Linux-Tage in Chemnitz and the annual summit of GSoC affiliate program in Munich.

Submitted by Carl Eugen Hoyos

5.3.9 GNU TeXmacs

We are about the launch the next major release 2.1. Last year, we have been fixing many bugs to make this possible. We also improved the quality of mathematical typesetting, the integrated presentation tool, the HTML converters, the TeXmacs website, we created several expository videos, and much more.

Submitted by Joris van der Hoeven

5.3.10 Jenkins

Jenkins continues to play a major role in pushing automation forward. We recently celebrated 15 years of Jenkins, and the project keeps evolving to address new automation use-cases and to provide support for modern platforms and cloud environments. We introduced new major features like Java 11 support, new plugin site and wide support for Jenkins Configuration as code within the plugin ecosystem. Jenkins X has graduated as a Jenkins subproject and became a new project under the umbrella of Continuous Delivery Foundation (CDF).

The Jenkins community keeps growing. In October 2019 we reached the record high number of contributions: 915 unique contributors during the month, 124 of them were first-timers. We had our first ever Governance Board and Officer elections and elected 3 new board members and 5 officers. We started new special interest groups for Documentation and User Experience. We ran multiple mentorship programs with 12 mentees in total: Google Summer of Code, Hacktoberfest and Outreachy. We also organized more than 40 meetups and 2 contributor summits around the world. In 2020 we plan to keep growing the community and to introduce a public roadmap for our project.

See Jenkins' blog post for more details and community statistics in the projects 2019 report.

Submitted by Oleg Nenashev, Jenkins Governance board

5.3.11 Open Bioinformatics Foundation

The Open Bioinformatics Foundation is a non-profit, volunteer-run group dedicated to promoting the practice and philosophy of open source software development and Open Science within the biological research community. The OBF's most visible activities are running the annual Bioinformatics Open Source Conference (BOSC), participating in the Google Summer of Code program, and running the OBF Travel Fellowship program. The Travel Fellowship program, launched in 2016, aims to improve diversity at bioinformatics events. In 2019 the OBF awarded 10 travel fellowships. The OBF functions as a GSoC umbrella

organization for bioinformatics projects. Over 40 students have participated in summer internships under the OBF umbrella since 2010.

Submitted by Heather Wiencko

5.3.12 OpenEmbedded

OpenEmbedded is a build system that creates custom Linux distributions for devices running Linux. Traditionally used for creating images for embedded devices, OpenEmbedded is now used all over to create small images for internet of things (IOT) devices, to large images pushing into the desktop space. Over the past year, we see additional users who build edge routers for IOT applications and images to deploy in popular containers systems.

To support the OpenEmbedded developer community, we work with the Yocto Project to arrange developer meetings twice a year. This year we had a developer meeting in Lyon, France after the embedded Linux Conference Europe. We also assisted running the Platform Security Summit held in Redmond, Washington USA. Both events were well attended and we received positive feedback from attendees.

Submitted by Philip Balister

5.3.13 Open MPI

The Open MPI community is a collection of academics, researchers, and vendors who continue to develop cutting-edge technology for today's most-demanding High Performance Computing (HPC) environments.

The community was hard at work throughout all of 2019. We had six total maintenance subreleases of Open MPI — two each in the v3.0.x series, v3.1.x series, and v4.0.x series. The community has also been spending a significant amount of time defining, designing, and implementing the upcoming v5.0.0 release, which we anticipate will be in 2020. The v5.0.x series will include major new features and will be a significant milestone in the Open MPI release history. Additionally, the Hardware Locality (hwloc) sub-project had three maintenance subreleases of its package in 2019, mainly dealing with updates for new hardware and vendor form factors in advanced computing platforms.

Submitted by Jeff Squyres

5.3.14 OpenSAF

OpenSAF is an open source community with projects focused on high availability (HA) middleware. The goal of OpenSAF projects is to develop HA middleware that is consistent with the Service Availability Forum (SA Forum) specifications. The OpenSAF project was informally started in mid-2007. The OpenSAF Foundation was founded on January 22, 2008 with Emerson Network Power, Ericsson, Nokia Siemens Networks, HP and Sun Microsystems as founding members. In 2019 the foundation was wound down and the project got a new home under SPI.

Over 2019 OpenSAF issued 4 new major releases. Some of them included significant enhancements to existing services and features. Most of the enhancements were related to improvement of handling of network partitioning and tolerance of dropped TIPC packets. We also added support for container/contained, which has been in the AIS specification since version B.03.01.

More information can be found here:

- OpenSAF 5.19.01 release notes
- OpenSAF 5.19.03 release notes
- OpenSAF 5.19.07 release notes
- OpenSAF 5.19.10 release notes

Submitted by Jonas Arndt

5.3.15 Open Voting

We are working on ensuring support for open source voting in the California state budget, to be finalized in the coming months. We're not waiting for this, but leap-frogging to our international campaign for open source voting.

Submitted by Alan Dechert

5.3.16 OpenWrt

OpenWrt is an operating system targeting embedded devices. The project prepared its next major release OpenWrt 19.07 which was released on January 10th, 2020.

In June 2019, OpenWrt held a developer meeting in Hamburg, Germany to discuss future directions and general project matters.

Throughout the year, OpenWrt added many incremental improvements, introduced library ABI tracking, expanded its device support, implemented basic security processes and continued upstreaming system on a chip (SoC) and driver code.

Furthermore, a community-based translation process for the web UI has been implemented using weblate.org and first steps were taken to refresh the project identity by preparing a number of logo and color design candidates for the community to vote for.

Submitted by Jo-Philipp Wich

5.3.17 OpenZFS

OpenZFS held its annual Developer Summit in November 2019. With around 100 attendees and 17 speakers, it was a great event for educating the community about new features in OpenZFS, as well as for folks to interact face to face with other developers and plan the next year's activities. We continued our monthly leadership meetings (via video conference) which accomplish similar goals but with a focus on discussion rather than presentations. On the development front, 2019 saw the integration of TRIM support, redacted send/receive, `zpool wait`, two major performance improvements, and ZFS encryption was ported to illumos.

Submitted by Matthew Ahrens

5.3.18 Performance Co-Pilot

2019 was another successful year for the PCP community. We ran our second conference, this time in Melbourne, Australia and it proved to be a productive, educational and fun experience for developers and users alike.

We released a major version update (version 5.0) as well as a number of minor releases over the course of the year. The releases add new analysis tools, integration with Grafana for visualization and alerting, improved Redis scalable multi-host analysis capabilities, and we added many new metrics and other core functionality.

Once again we participated as a Google Summer of Code organization (for our fourth year), mentoring two students this year implementing Grafana `bpftrace` and `flamegraph` functionality, and integrating metrics from `statsd` into PCP.

Submitted by Nathan Scott

5.3.19 PostgreSQL

During 2019, PostgreSQL released version 12, which contained many long-anticipated features, like multivariate statistics, reindex concurrently, and common table expression control. Table partitioning continued

to be improved. Minor releases continued to be issued quarterly.

The year 2019 saw our first resort-style conference in Ibiza, Spain, and our first multi-day conference in Southeast Asia. This indicates PostgreSQL growth into new markets and adoption by new types of users. Cloud vendors continued to promote PostgreSQL, and employment opportunities remained strong. There was also a significant increase in the number of source code committers.

Since we don't have a parent commercial organization, much of the involvement with SPI falls to volunteer advocates who help to grow the PostgreSQL community. 2019 also saw an expansion in the group that manages such activities, increasing the diversity of cultures, companies, and countries involved.

One of the specific areas involved in this outreach is in managing PostgreSQL community-specific swag. We find that all over the world, people love to show off their PostgreSQL pride, so to help with that, we did a refresh of our conference giveaways, including:

- new die-cut Slonik stickers
- new 'honey-comb' style PostgreSQL stickers
- USB sticks, which include a copy of the PostgreSQL source code
- PostgreSQL ball caps
- new PostgreSQL lapel pins

We continued to work with a number of mentorship programs, including Google Summer of Code and Google Code-in, to help mentor young engineers who are interested in getting involved with PostgreSQL. We also helped to fund attendance at several conferences from under-represented groups within the PostgreSQL community.

We also expended our outreach to PostgreSQL user-groups, providing some of the aforementioned swag to user group leaders, both as a thank-you as well as a way to entice more participation.

And finally, for the first time, we've set up a developer thank-you program for the PostgreSQL 12 release, with the goal of providing a personal token of appreciation for everyone who helped bring the release together. With several hundred contributions spread across the globe, this has been an interesting challenge, but we wanted a way to say thank you to all of those who help bring us the software that stands at the heart of the PostgreSQL community.

Submitted by Bruce Momjian and Robert Treat

5.3.20 Privoxy

In 2019 the Privoxy project didn't publish any new releases but development continued. Most commits where related to HTTPS inspection which allows Privoxy to filter `https://` requests and responses.

Submitted by Fabian Keil

5.3.21 SproutCore

The SproutCore project has been steadily working towards support of ES6 features. As the core team has been reduced to two people, it is hard to make a lot of progress. In 2019 we have deployed one new version of the build tools and kept up maintenance of the framework.

Submitted by Maurits Lamers

5.3.22 Swathanthra Malayalam Computing (SMC)

Swathanthra Malayalam Computing(SMC) works as an umbrella organization of various free and open-source language technology projects in Indian languages.

In 2019 SMC continued its work on development, research, standardization and technology policy ensuring digital rights of native language users. A major achievement is that Santhosh Thottingal, project admin of SMC and author of many Malayalam computing packages, has been awarded the *Maharshi Badrayan Vyas Samman 2019* by the Hon. President of India for his substantial contribution in the field of Malayalam language.

This year we released a new free and open Malayalam font Gayatri, phonetic input methods for Windows and macOS users and released new versions of packages like Indic Keyboard and existing fonts. SMC also released NLP computing tools released such as mlmorph and a speech corpus collection project. The development includes Malayalam Named Entity Recognition, and a word predictor. A paper on SMC's Malayalam Morphology Analyzer was presented at Machine Translation Summit 2019.

SMC's localization team contributed to localization of Mastodon, KDE, Debian, Firefox, CommonVoice by Mozilla and organized translathons. In 2009 the SMC community also contributed to Root Zone Label Generation rules for Malayalam domain names at ICANN. As usual, this year SMC organized and participated in various workshops and training on language computing and actively involved in technology policy interventions on digital rights and data privacy.

Submitted by Anivar Aravind

5.3.23 systemd

In 2019 we published four major releases of systemd. At the All Systems Go! conference in Berlin, many systemd contributors and maintainers participated in a successful hackfest.

We worked with Tobias Bernard from the GNOME project who designed a project logo for us, including a web site design. In exchange we sponsored a design internship for the GNOME project.

Submitted by Lennart Poettering

5.3.24 The Mana World

The Mana World (TMW) is an effort to create an innovative free and open source MMORPG (massively multiplayer online role-playing game). In 2019, The Mana World celebrated its 15th anniversary and welcomed new developers and users (game masters) to its team. For the occasion, we organized a big in-game event spanning several months (and still ongoing) in which the actions and decisions of the players will have a direct impact on the conclusion. Progress on the new server (based on Evol-Hercules) also advanced steadily, with a planned release by the end of 2020.

Submitted by Pascal Beauchamp

5.3.25 Translatewiki.net

In 2019, our community of translators grew by almost 850 new users. Active monthly translators remained stable, between 400 and 500. MediaWiki, the most active project, on the typical month had about 20,000 translations by about 240 translators. A few projects were removed due to inactivity. Over 80 new MediaWiki extensions or skins were added, as well as 10 new projects.

With a major server migration, we now have room for growth and a stable and secure base for multiple years. We migrated from two servers to one large server and switched from Ubuntu to Debian. The main responsibilities for system administration and development are now shared by two persons instead of one.

We joined SPI in order to have a fiscal sponsor as part of our continuity and succession planning. The continuity of translatewiki.net was also the topic of a discussion session at Wikimania conference in Stockholm.

Submitted by Niklas Laxström

5.3.26 X.Org

The X.Org and freedesktop.org communities help to create a free and open accelerated graphics stack, including major components such as the DRM (Direct Rendering Manager) kernel graphics subsystem, Mesa 3D graphics library, Wayland compositors and the X.Org Window System.

The Foundation supported the community through travel grants for the X Developers Conference in Montréal, Canada, organized by Collabora and Concordia University in October 2019. 5 students successfully completed their GSoC/EVoC/Outreachy internships within the X.Org community, and most could attend XDC in Montréal to present their work thanks to travel grants from X.Org.

This year we've managed to introduce multiple services to the X.Org community. The first is one we haven't had in a very long time, free VESA memberships for active contributors who request it. We've also introduced free Code of Conduct training to anyone in the community who is interested in it. And, we've successfully completed our merger with freedesktop.org.

In merging with freedesktop.org we've also helped to start the new popular gitlab.freedesktop.org service, where we offer easier project hosting to X.Org and freedesktop.org projects, along with CI integration that's now used by multiple major projects like Mesa and Gstreamer.

Submitted by Lyude Paul



Appendix A

About SPI

SPI is a non-profit organization which was founded to help organizations develop and distribute open hardware and software. We encourage programmers to use the GNU General Public License or other licenses that allow free redistribution and use of software, and hardware developers to distribute documentation that will allow device drivers to be written for their product.

SPI was incorporated as a non-profit organization on June 16, 1997 in the state of New York. Since then, it has become an umbrella organization for projects from the community.

In 1999, the Internal Revenue Service (IRS) of the United States government determined that under section 501(a) of the Internal Revenue Code SPI qualifies for 501(c)(3) (non-profit organization) status under section 509(a)(1) and 170(b)(1)(A)(vi). This means that donations made to SPI and its supported projects are tax-deductible as charitable donations for US taxpayers.







































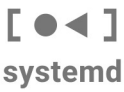








































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