THE APACHE® SOFTWARE FOUNDATION

ANNUAL REPORT

FY2020 (01 May 2019 - 30 April 2020)

Contents

THE APACHE® SOFTWARE FOUNDATION
http://www.apache.org/

The ASF at-a-Glance

The Apache Software Foundation (ASF) was founded in 1999 with the mission to provide software for the public good.

Today ...

The Apache Software Foundation is the world's largest Open Source foundation, stewarding 200M+ lines of code and providing more than $20B+ worth of software to the public at 100% no cost.

The ASF's all-volunteer community grew from 21 original founders overseeing the Apache HTTP Server to 813 individual Members and 206 Project Management Committees who successfully lead 350+ Apache projects and initiatives in collaboration with 7,700+ Committers through the ASF's meritocratic process known as "The Apache Way".

Apache software is integral to nearly every end user computing device, from laptops to tablets to mobile devices across enterprises and mission-critical applications. Apache projects power most of the Internet, manage exabytes of data, execute teraflops of operations, and store billions of objects in virtually every industry.

The commercially-friendly and permissive Apache License v2 is an Open Source industry standard, helping launch billion dollar corporations and benefiting countless users worldwide.

Chairman's Report

by Roy Fielding

The past 12 months have been a banner year for the Foundation, celebrating our 20th anniversary of incorporation and producing two very successful ApacheCon conferences in Las Vegas and Berlin. My thanks go out to Craig Russell and Sam Ruby for their steadfast leadership over the past year and for their ongoing guidance as Board members.

With a new year comes a new Board of Directors to guide our projects, new officers to run our foundation, and a few old hands returning to the fold. I still remember the day we incorporated, now 21 years ago, when we had to invent a real-world foundation out of the entirely virtual Apache HTTP Server project. Back then, my focus was on inventing policies and processes that would make us appear like a traditional corporation. Now, I find myself discarding traditions in favor of returning to a more open and collaborative foundation, in line with our projects and updated to the latest corporate laws, yet still devoted to our original purpose.

The Apache Software Foundation is unique in its purpose, structure, and governance. The foundation exists to support our Open Source projects and protect our volunteer contributors in their mission to supply the public with world-class software products that everyone can extend and help maintain. Core contributors are elected as Members, who then directly nominate and elect our Board of Directors to act as their representatives in leading the foundation.

Our governance structure deliberately separates our Open Source projects from the concerns of day-to-day management of the foundation's services, finances, and assets. Thus, our self-governing projects, driven almost entirely by their own communities, report directly to the Board for oversight, while the bulk of our Foundation operations are managed by our President and a mostly volunteer cadre of officers.

This Foundation has survived more than two decades of change in the software industry and is stronger now than ever before. In FY2020, we welcomed 9 new Top-Level Projects, totalling 339, 45 more podlings on their way through the Incubator, and elected 34 new ASF Members.

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In the coming year, we face a daunting new threat in COVID-19, a pandemic which has already impacted our family of contributors and seems destined to continue wreaking havoc over the coming year. This has severely impacted our future ability to produce in-person conferences as a means for gathering our communities and interacting with our users. However, we'll find a way forward, with a continuing focus on the wellbeing of our contributors.

Although we have always worked remotely, none of us are immune to the stress of everyday life, especially when it touches our colleagues and families. Thankfully, the lessons we have learned in supporting worldwide collaborative efforts are now being applied by researchers fighting the virus, along with much of the software that makes collaboration over the Internet possible.

We are extremely grateful to our Sponsors who support our work year after year, including many companies in Web services, finance, retail, media, social media, cloud services, and developer tools and services. You can see a full list of our Sponsors at https://www.apache.org/foundation/thanks

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President's Report

by David Nalley

Another year has passed, and in many ways, the ASF has continued on course and is driving it's mission to release software to the public. Of course, the reality is that much has changed in the world around us, and even with the ASF. The global pandemic presents new challenges as we face a valuable inflection point.

The ASF's mission remains to provide Open Source software for the public good. We have a process built around community ownership and governance by individual contributors that have served us well for more than two decades. Ours is not the only way to produce Open Source software, and it might not be a fit for every Open Source project, but our focus on community independence and neutrality has demonstrably worked in a number of cases.

FY20 was one of growth in terms of contributors, members, projects and releases. Elsewhere in this report you'll see just how that growth manifests itself in our project communities. While we like "up and to the right" graphs, and the ASF has many of those, growth isn't our end goal. We don't have a growth strategy or strategic project targets we are looking to recruit. Instead, we welcome Open Source communities who think that the Apache Way is a fit for their project culture.

I'm personally encouraged by the growth. In this report you'll see detailed the growth we see in contributors, committers, incubating projects, and Top-Level Projects. That growth represents a continued steady pattern of investment by individuals who recognize that their time here remains valuable. Likewise, our Sponsors continue to recognize the valuable investment that the ASF represents and continue to enable the Foundation to operate and grow.

That leads me to ponder the impact of The Apache Software Foundation. The ASF's reach boggles the mind. Our software is all over the planet and even launched into space, it provides foundational libraries or core infrastructure depended upon by the entire world as well as spinning up entirely new niches in the software industry.

One of the things we've done well is much like the economic 'commons' that Open Source provides, is that the Foundation itself provides a 'commons' of experience, infrastructure, brand management, marketing and other tools for projects to leverage. And while I stated that we don't have a growth strategy, that doesn't mean

we haven't and aren't planning for the long term growth of the Foundation and its projects. The generosity of our sponsors and the frugality of the Foundation has put us in a place that despite the likely strain of the pandemic, we are able to confidently move forward.

The real story is about the individual contributor at Apache. It always has been, but it's really the individual volunteers coming together to build new technology, maintain software that is core to the world, or deal with the administrivia. When looking at the accomplishments and growth of the Foundation over the past year as we are in this Annual Report, it's really the overwhelming work of the volunteers that we're celebrating. These individuals have made the world a better place.

Treasurer's Report

by Myrle Krantz

In my first year as Treasurer with Trevor Grant's help as Assistant Treasurer, and Tom Pappas' assistance with accounting, we have been able to accomplish the following:

- The foundation is in excellent fiscal shape with all tax forms filed. Latest public filings can be found at http://www.apache.org/foundation/records/ . NOTE: The FY2018-2019 public filings should be available once the IRS sends them via Guidestar. See https://www.guidestar.org/profile/47-0825376

- The Board, the President, the Treasurer, and Fundraising are watching the economic outlook closely. We are scaling back budgets preemptively to prepare the foundation financially. We are also identifying further potential cuts, should the situation worsen. Spending which supports our projects and our current employees is prioritized, as well as spending which supports fundraising.

- Our Cash assets are currently in Operating, Money Market and CDARS (a managed and regulated CD system). This very low risk approach means that our finances were not negatively affected by the market fluctuations of the spring of 2020. Our CDARS account provides FDIC insurance for the full amount. The funds are invested in certificates of deposit through various banks with variable terms so that liquidity is always ensured.

- We have begun implementing a change in our invoice tracking, approvals, and payment processes. We are introducing a standard workflow based on bill.com. This replaces a custom workflow based on a version control system which served us well for nearly two decades, but which we have outgrown.

- Our current asset to liability ratio reduced slightly from 2.74 in FY2019 to 2.50 in FY2020. This continues to be a very healthy ratio.

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Financial Statement

		Fiscal year Results YEAR over YEAR		
			FY19	**FY20**
	Income Summary			
		Public Donations	$ 135,584	**$ 47,063**
		Sponsorship Program	$ 1,617,371	**$ 1,510,100**
		Programs Income	$ 17,200	**$ 15,578**
		Conference/Event Income	$ 257,466	**$ 610,161**
		Other Income	$ 31,002	**$ -**
		Diversity and Inclusion Targeted Donation		**$ 30,000**
		Interest Income	$ 17,903	**$ 20,854**
	Total Income		$ 2,076,526	**$ 2,233,756**
	Expense Summary			
		Infrastructure	$ 702,341	**$ 1,091,179**
		Program Expense	$ -	**$ 25,597**
		Publicity	$ 232,703	**$ 317,855**
		Brand Management	$ 59,750	**$ 49,385**
		Conferences	$ 525,824	**$ 708,925**
		Travel Assistance Committee	$ 15,055	**$ 50,362**
		Fundraising	$ 145,269	**$ 141,561**
		Treasury Services	$ 45,170	**$ 42,509**
		General & Administrative	$ 20,891	**$ 23,790**
		Diversity and Inclusion	$ -	**$ 60,000**
	Total Expense		$ 1,747,001	**$ 2,511,162**
Net Income			$ 329,525	**$ (277,406)**

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	Apr 30, 19	Apr 30, 20
ASSETS		
Current Assets		
Checking/Savings	$ 3,814,185	$ 3,562,348
Total Current Assets	$ 3,814,185	$ 3,562,348
Other Assets		
Security Deposits Asset	$ 22,500	$ 24,900
Total Other Assets	$ 22,500	$ 24,900
TOTAL ASSETS	**$ 3,836,685**	**$ 3,587,248**
LIABILITIES & EQUITY		
Liabilities		
Temp Restricted Donations		
Pineapple Donation	$ 892,882	$ 892,882
Project Targeted Donations	$ 1,000	$ 32,979
Temp Restricted Donation -- Other	$ 500,000	$ 500,000
Temp Restricted Donations	$ 1,393,882	$ 1,425,860
Total Liabilities	$ 1,393,882	$ 1,425,860
Equity		
Opening Balance Equity	$ 1,570,838	$ 1,570,838
Retained Earnings	$ 542,440	$ 867,955
Net Income	$ 329,525	$ (277,406)
Total Equity	$ 2,442,803	$ 2,161,387
TOTAL LIABILITIES & EQUITY	**$ 3,836,685**	**$ 3,587,248**

Fundraising

by Daniel Ruggeri

As always, we would like to start our fundraising report by thanking our Sponsors for their continued support. As a 501(c)(3) charity, our Sponsors are our sole source of funding - and everything we are able to do is because our Sponsors have made it possible. THANK YOU!

With the closure of the 2020 fiscal year, we are entering a time of great uncertainty in our industry due to the COVID-19 pandemic. We are heartened and energized to share that our sponsorship base remains stable to date despite the significant pressures placed on our Sponsors. This continued support is a testament to the importance of our mission as well as how truly wonderful our Sponsors are.

Our Sponsor Ambassador program noted in last year's annual report continues to go well by setting regular check-in times with all of our sponsors and ensuring our sponsors always have a current member of the Fundraising team available. We are otherwise pleased to report that "business as usual" Fundraising activities are humming along smoothly: new sponsors are onboarded efficiently, renewals are processed quickly, and feedback is gathered regularly.

As we've improved the back office support of our Sponsors and Fundraising activities for the Foundation, we've been sure to bring those efficiencies to our support of ApacheCon and Apache Roadshow events. Developing a support model and process for event sponsorship has been a primary focus this past year for the Fundraising and Events teams. While documentation and process flows may not sound "exciting" to most, the year's activities have been a great benefit to our hybrid volunteer/paid event support teams. This is a natural and necessary growth step as our Events team explores models for event types, production, and support.

Moving into the next fiscal year, we plan to continue with the success seen by supplementing our event sponsorship sales with paid support. Additionally, we are continuing to focus on identifying new sources of sponsorship funds by reinvigorating efforts in this space. We are also ramping up support of our TAC program - so keep an eye on this space for details through the upcoming fiscal year!

The support of our very generous Sponsors are crucial to the ASF's success! They are:

10 Platinum Sponsors: Amazon Web Services, Cloudera, Comcast, Facebook, Google, LeaseWeb, Microsoft, the Pineapple Fund, Tencent Cloud, and Verizon Media.
9 Gold Sponsors: Anonymous, ARM, Bloomberg, Handshake, Huawei, IBM, Indeed, Union Investment, and Workday.
11 Silver Sponsors: Aetna, Alibaba Cloud Computing, Baidu, Budget Direct, Capital One, Cerner, Inspur, ODPi, Private Internet Access, Red Hat, and Target.
25 Bronze Sponsors: Airport Rentals, The Blog Starter, Bookmakers, Cash Store, Casino Bonus, CarGurus, Casino2k, Cloudsoft, Emerio, Footprints Recruiting, HostChecka.com, HostingAdvice.com, HostPapa Web Hosting, Mobile Slots, Host Advice, Mutuo Kredit AG, Online Holland Casino, ProPrivacy, PureVPN, RX-M, SCAMS.info, Site Builder Report, Start a Blog by Ryan Robinson, Talend, Twitter, and Web Hosting Secret Revealed

- and -

6 Platinum Targeted Sponsors: DLA Piper, JetBrains, Microsoft, OSU Open Source Labs, Sonatype, and Verizon Media.
5 Gold Targeted Sponsors: Atlassian, The CrytpoFund, Datadog, PhoenixNAP, and Quenda.
3 Silver Targeted Sponsors: Amazon Web Services, HotWax Systems, and Rackspace.
10 Bronze Targeted Sponsors: Bintray, Education Networks of America, Google, Hopsie, No-IP, PagerDuty, Peregrine Computer Consultants Corporation, Sonic.net, SURFnet, and Virtru.

We appreciate our **2019 Event Sponsors**: Aiven, Amazon, AWS, Ballerina, Comcast, CrowdStrike, eBay, DataStax, Google, Google Cloud, HotWax Systems, IBM, Instaclustr, Jahia, Linode, LinuxMagic, PCCC, RedHat, Reniac, ShapeBlue, SK Telecom, StreamNative, Tencent Cloud, The Last Pickle, and WhiteSource.

...and the hundreds of individual donors who have supported Apache throughout the fiscal year.

Thank you, thank you, thank you.

ASF Sponsors

Platinum Sponsors

aws

cloudera

COMCAST

facebook

Google

leaseweb
reliable hosting

Microsoft

Pineapple Fund

Tencent Cloud

verizon media

Gold Sponsors

Anonymous

arm

Bloomberg

handshake

HUAWEI

IBM

indeed

Union Investment

workday

Silver Sponsors

aetna   Alibaba Cloud   Baidu 百度   Budget Direct simply smarter insurance   CapitalOne   Cerner   inspur

ODPi   privateinternet   Red Hat   TARGET

Bronze Sponsors

Airport Rentals	Footprints Recruiting	PureVPN
The Blog Starter	HostChecka.com	RX-M
Bookmakers	HostingAdvice.com	SCAMS.info
Cash Store	HostPapa Web Hosting	Site Builder Report
Casino Bonus	Mobile Slots	Start a Blog by Ryan Robinson
CarGurus	Host Advice	Talend
Casino2k	Mutuo Kredit AG	Twitter
Cloudsoft	Online Holland Casino	Web Hosting Secret Revealed
Emerio	ProPrivacy	

Individual Giving

The ASF is ranked by GuideStar with a Gold Seal of Transparency for voluntarily and publicly describing its goals, strategies, and accomplishments.

Legal Affairs

by Roman Shaposhnik

The Apache Software Foundation (ASF) Legal Affairs committee has been charted directly by the Apache Board of Directors to work with our pro-bono and regular legal counsel on answering legal questions and addressing policy issues regarding license compatibility and intellectual property concerns within the Apache Software Foundation communities. Another part of our mission is to help guide the foundation through an evolving legal landscape and be the first point of contact for any third party individuals or organizations seeking to engage with us in a more formalized legal manner.

For the past year, Roman Shaposhnik and Henri Yandell have remained in positions of VP Legal and Assistant VP Legal. Otherwise, the committee has seen moderate growth in active members and currently stands at 20 participants.

The committee would like to thank all its members, but especially Mark Radcliffe and the DLA Piper team for always being willing to work with us even under very tight deadlines.

Over the past year, the team has worked through a number of issues including:
- Streamlining presentation of material over at https://www.apache.org/legal
- Providing clarity for ASF projects around legal implications surrounding distributions of various binary convenience artifacts and use of 3d party distribution channels (such as Maven Central, Docker HUB, Apple Store, Google Play Store, etc.)
- Working with various governmental entities and regulators and providing clarity for ASF's role and involvement with private individuals and corporate entities
- Submitting our feedback for various pending litigations involving use of ASF projects
- Resolving DMCA takedown notices
- Responding to Subpoenas
- Reviewing contracts required for ASF's projects participation in related non-profit organizations such as KNX Association or OPC Foundation
- Reviewing contracts for the various board level activities and committees such as Travel, Conferences and Diversity/Inclusion

- Maintaining our list of Category A/B/X licenses and responding accordingly to introduction of new licenses derived from ALv2 (such as "Mulan PSL v2" license)
- Starting to diversify the pool of corporations and legal professionals available to work with the foundation on a pro-bono basis in order to augment the work of DLA Piper
- Providing non-binding guidance to corporate officers and legal counsels of various companies reaching out to us for clarifications around ASF Legal policies
- Meeting with our sponsors at face-to-face events (e.g. ApacheCON) and answering their questions around IP management and licensing policies within ASF
- Working with Apache Incubator PMC on a more accommodating release policy aimed at smoothing the transition of new projects into the foundation.
- Assisting ASF projects with their questions around the use of licenses in their codebases.
- Continue a robust dialogue and collaboration between legal committees of ASF and other major Open Source organizations (Linux Foundation, OSI and Eclipse Foundation).

In general the goal of the Legal Affairs committee is to provide support to Apache projects as they consider inclusion of dependencies in their products, and understanding of how those dependencies are or are not compatible with the Apache License. We provide a list of "resolved" questions, available at https://www.apache.org/legal/resolved.html which can be thought of as a "Frequently Asked Questions (FAQ)" page that represents decided policy as recorded over the years. We frequently cite and inform others of this page and infrequently we update policy based on understanding and the needs of our projects. In addition, the Legal Committee encourages its customers to use our JIRA instance, available at: http://issues.apache.org/jira/browse/LEGAL for discussion that may lead to a policy decision.

We have had a busy year and are eager to meet and serve the needs of our projects, in collaboration with our pro-bono counsel.

Infrastructure

by David Nalley

The Infrastructure team has continued to work on expanding the services and features to our many communities, while attempting to control costs as the Foundation continues to grow. This has been done through a mix of new technology, more self-service, and continued improvements in our deployments and resiliency.

The team attended ApacheCon North America in September 2019, to meet with the Foundation's many communities. In addition to meeting people at the conference, we have done a couple "interviews" with our Marketing group to provide more insight to our members; these have been posted to the Foundation blog. We had planned for a close-knit meetup in the spring of 2020, but canceled due to the advent of the coronavirus pandemic. Given that our team operates remotely, we have remained quite safe and healthy, as we continue to work from home.

More Services and Features

One of the more important features that we introduced this past year is our ".asf.yaml" service. This is a file, placed into a project's git repository(-ies) which allows the project to directly control multiple aspects related to that repository: labels, description, change notification email addresses, and Website generation, staging, and publishing. Where all these features used to require a project to file a work ticket with the Infrastructure team, the projects can now directly perform the changes. This reduces the workload on our team, and enables projects who may have avoided the whole ticketing process to alter some minor aspect of their workflow.

Since 2001, the Foundation has operated multiple repositories using Apache Subversion ("svn"). Many projects continue to use this to this day, and the main repository contains nearly 2 million commits. Most projects want their code to appear on GitHub for wider visibility, and we run a service that mirrors changes to the svn repository over to GitHub. We streamlined and simplified this service over the past year, increasing the quality and uptime for our projects.

Many of our projects use Jenkins for testing and building. A large number of our Jenkins nodes are contributed by third parties to assist specific projects. Historically, these donated nodes have been labeled to indicate their intended usage, but any project could technically use them. This past year, we have started deploying

dedicated Jenkins masters and associating each group of donated nodes. This has provided projects with finer-grained controls on who can use those nodes, what plugins are available, and better reporting of the build activity.

The Foundation has existed for over 20 years, and its Websites and documentation have grown organically over that time by a loose knit group of developers. Thus, it is no surprise that this (lack of) process resulted in a disorganized, unclear, and poorly written documentation. In December, the Foundation hired a technical writer/editor to bring sanity and clarity to our Websites, with a primary focus on our Infrastructure documentation.

Controlling Costs

With the continuing growth of the Foundation, the Infrastructure team has been required to stay ahead of that growth curve. The improvements in self-service features have conserved our time, but we also need to manage our growth of costs. Contrary to typical operational groups, we rely on multiple cloud providers with a mix of donated and paid resources. In July of 2019, we completely exited one datacenter, and moved our services to another provider, and a couple services onto yet other providers. We strive for lower costs, finding the provider that matches the needs for a particular service. Our ability to move among cloud providers has been greatly helped by our shift from two decades of organic machine setup, over to a Puppet-based configuration management. We have spent much of the year upgrading our services from an older version of Puppet and older Ubuntu installs, onto the latest Puppet and Ubuntu 18.04 LTS. This process allows us to more easily constrain our costs, by creating mobility across cloud providers.

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Security

by Mark Cox

The Security committee of The Apache Software Foundation (ASF) perform the following functions:

- handling and triage of incoming security reports in our projects
- working closely with the project teams, communities, and reporters to ensure that issues get handled quickly and correctly.
- maintaining a consistent process for projects to follow in handling vulnerabilities
- providing advice to projects and assisting with complex or critical issues
- allocation of CVE names (as a Mitre Candidate Naming Authority)

Volume

In the course of the year our security addresses received in total over 18,000 emails. After spam filtering and thread grouping this becomes 704 non-spam threads.

Breakdown of incoming security email threads
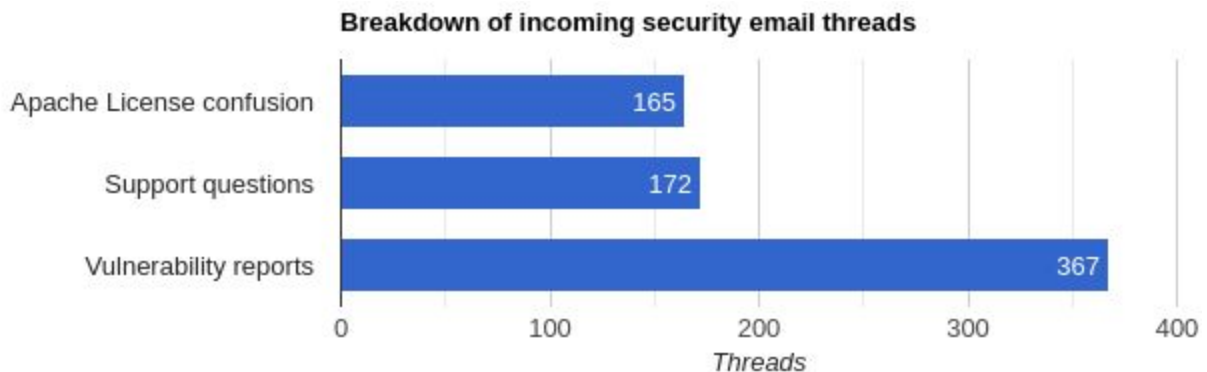
Diagram 1 gives the breakdown of those 704 threads.

165 of the 704 threads (23%) were people confused by seeing the Apache License on their devices. We continue to get a large number of these reports mostly due to software which has been released under the Apache License but was not created by the ASF (such as the majority of the Android OS).

The next 172 (24%) are threads that were not reports of new vulnerabilities. These are generally people asking support-type questions or how old, public, vulnerabilities were dealt with.

That left 367 reports (52%) of possible vulnerabilities, and these spanned across 90 of the top level ASF projects. The reports are overseen by the security team through their lifecycle and further triaged and investigated by each project's security team or PMC. Issues that are confirmed valid are addressed with updates and this led to 104 CVE names being issued.

Noteworthy events

During the year there were a few noteworthy events; issues that were severe and high risk, ones that had readily available exploits, issues spanning multiple projects, or otherwise due to media attention. These included:

- June 2019: A number of Java build dependencies were being downloaded over insecure paths (i.e. HTTP rather than HTTPS) and were corrected. We did not classify these as security vulnerabilities in themselves as exploiting them would require MITM attacks at build time.
- July-December 2019: A number of flaws in Apache Solr that could allow remote code execution. Public exploits exist for some of the issues as well as a Metasploit module.
- August 2019: Some older Struts advisories were corrected after discrepancies in the stated affected versions were reported.
- August 2019: A number of denial of service vulnerabilities affecting Apache HTTP Server and Apache TrafficServer HTTP/2 handling. Apache Tomcat also made performance improvements to HTTP/2 handling but the issues were not classed as denial of service.
- September 2019: A report highlighted vulnerabilities known to be used by Ransomware of which four were in ASF projects. All four vulnerabilities were fixed in prior years and all had updates and mitigations available before any ransomware took advantage of them. The four vulnerabilities were: CVE-2016-3088 affecting Apache ActiveMQ, CVE-2017-12615 affecting non-default Apache Tomcat instances on Windows, CVE-2017-5638 and CVE-2018-11776 affecting Apache Struts.
- December 2019: A public exploit was published for a flaw in Apache Olingo, CVE-2019-17554, which could allow arbitrary files to be retrieved from a server.
- March 2020: An issue in Apache Tomcat, CVE-2020-1938, was given branding and a name and was disclosed by a third-party before Tomcat released an advisory (although after the issue was fixed in new releases). Although serious if exploited, it only affected Tomcat installations that had public unprotected endpoints.

We welcome reports from anyone finding security issues in any Apache project to security@apache.org, or read more about the process at https://apache.org/security/

Data Privacy

by Christian Grobmeier

Apache Data Privacy is a very young effort to support Apache Projects that handle GDPR requirements and data privacy in general. Since January, a few questions were identified, such as:

- How can a project use Google Analytics?
- How can we protect our Members' data?

It is now necessary to work through all those questions, learn more about the data we collect at the ASF, and how it is used.

In addition to this big challenge we are facing, we have already been responsive to "day-to-day" questions. There have not been so many so far.

We have:

- executed the "Right to be forgotten", when a user wanted to be removed from a message board.
- supported ASF Diversity & Inclusion on questions, how data analysis on existing data can be done

In the next fiscal year we want to work on these big tasks mentioned above but also streamline the way we deal with daily business. Hopefully, we can provide written documentation for many of these tasks soon so our Projects have guidance when it comes to privacy and can focus on their day-to-day activities.

Marketing & Publicity

by Sally Khudairi

The ASF's marketing, publicity, and promotional activities are executed by HALO Worldwide, who, since 2006, oversee Foundation-level outbound strategic communications and day-to-day tactics, as well as support and offer counsel to:

➔ Apache Projects and their Communities
➔ ASF Fundraising and Sponsor Relations
➔ Apache Trademarks and Brand Management
➔ Apache Community Development
➔ Apache Conferences and Events

FY2020 highlights

➔ 10 Press Releases
➔ 98 Informal Announcements
➔ 479 Tweets
➔ 56.8K Twitter followers
➔ 222 LinkedIn posts
➔ 40.8K LinkedIn followers
➔ 79 Media Queries
➔ 45,481 Media Clips
➔ 18 Analyst Briefings and Queries
➔ 190 Analyst Reports
➔ 57 Apache News Summaries (Weekly Round-Ups + new Months in Review)
➔ 3 Quarterly Reports/Operations Summaries
➔ FY 2019 Annual Report https://s.apache.org/FY2019AnnualReport

Special Projects

FY2020 opened five weeks after the ASF's 20th Anniversary. As such, the ASF's marketing and promotional efforts during the 2020 calendar year focused on paying tribute to the projects, people, and processes behind the Foundation's sensational success.

The Apache Way

The open, community-driven process behind the development of the Apache HTTP Server formed the model adopted by future Apache projects as well as emulated by other Open Source foundations. Dubbed "The Apache Way", the principles underlying the ASF embrace:

Earned Authority | Community of Peers | Open Communications
Consensus Decision Making | Responsible Oversight

The ASF is strictly vendor neutral. No organization is able to gain special privileges or control a project's direction, irrespective of employing staff to work on Apache projects or sponsorship status.

The Apache Way has been a forerunner in collaborative computing, and has directly influenced the InnerSource methodology of applying Open Source and open development principles to an organization. The Apache Way has been adopted by countless organizations, including Capital One, Comcast, Ericsson, HP, IBM, Google, Microsoft, PayPal, SAP, T-Mobile, and many others.

"Community Over Code", underscores that a healthy community is far more important than good code, and is one of the cornerstones of "The Apache Way" of community-led development. The ASF's belief is that vibrant, diverse communities keep code alive: code, however well written, cannot thrive without a community behind it.

Learn more at http://apache.org/theapacheway/

Community Over Code. Code Over Community

The ASF collaborated with Peter Adams, noted technologist, photographer, and creator of the Faces of Open Source project http://www.facesofopensource.com/ on a special project commemorating the ASF's 20th Anniversary. Building on the ASF's unofficial tagline, "Community Over Code", the photo session took place in September 2019 during ApacheCon in Las Vegas, and featured:

1) "Community Over Code" — group photographs of members of select Apache Project Management Committees (PMCs) and initiatives

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2) "Code Over Community" — individual portraits of select PMC members with images of their Project's code projected onto them. Some ApacheCon keynoters participated in the shoot as well.

To see the complete collection, visit
http://www.peteradamsphoto.com/apache-20th-anniversary/

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Trillions and Trillions Served

"Trillions and Trillions Served" is a documentary that celebrates the diverse experiences from members of the Apache community from around the world. The project sparked 10 years ago with a whimsical trailer of Brian Behlendorf, Roy Fielding, Jim Jagielski, and Greg Stein were filmed during the ASF's 10th Anniversary at ApacheCon Oakland, and shared the story of the ASF's early days
https://youtu.be/UvuyBz1qMCE

Ten years later, the project resumed, and grew to reflect the innovation and passion of ASF's incredible rise from 21 original founders overseeing a single project to the world's largest Open Source foundation. The documentary was shot by Wyona Pictures on location in September and October 2019 at ApacheCon North America in Las Vegas and ApacheCon Europe in Berlin. The "Why Apache" teaser was released in tandem with the ASF's 21st Anniversary in March 2020
https://s.apache.org/Trillions-teaser . The main feature documentary and two "shorts" are in post-production. For more information on this project, visit
https://s.apache.org/ASF-Trillions .

[click image to launch "Why Apache?"]

Boosting the Apache Brand at ApacheCon

The original ASF Feather pre-dates the formation of the ASF, and was first out "in the wild" at the first ApacheCon, in 1998.

When ASF Marketing & Publicity updated the ASF logo in 2016, we felt it was important to continue to extend the feather glyph --a symbolic element of the brand

that represents the Foundation and diversity of the Apache community-- both online and in-person. The 3-D feather signage debuted at ApacheCon Miami in 2016

...and has been part of every ApacheCon

In FY2020 we manufactured a second 3-D feather to commemorate the ASF's 20th Anniversary that would be signed by members of the community both ApacheCons Las Vegas and Berlin, starting with some of the ASF's Founders
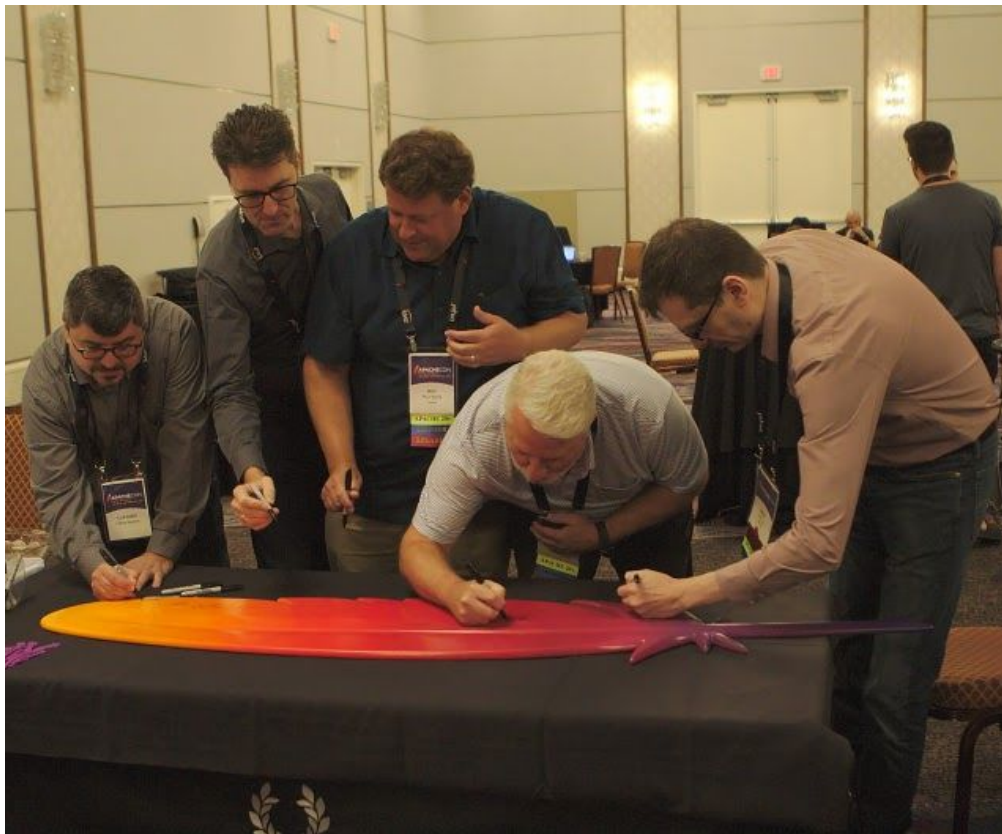
...and included the Apache community at-large

THE APACHE® SOFTWARE FOUNDATION
http://www.apache.org/
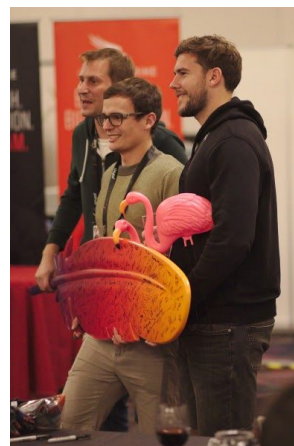
Branding for the ASF 20th Anniversary was omnipresent at both ApacheCons during FY2020, with the most stickers, signage, and swag produced than ever before.

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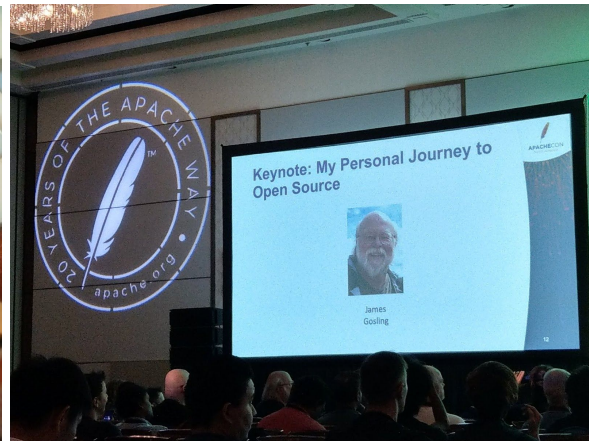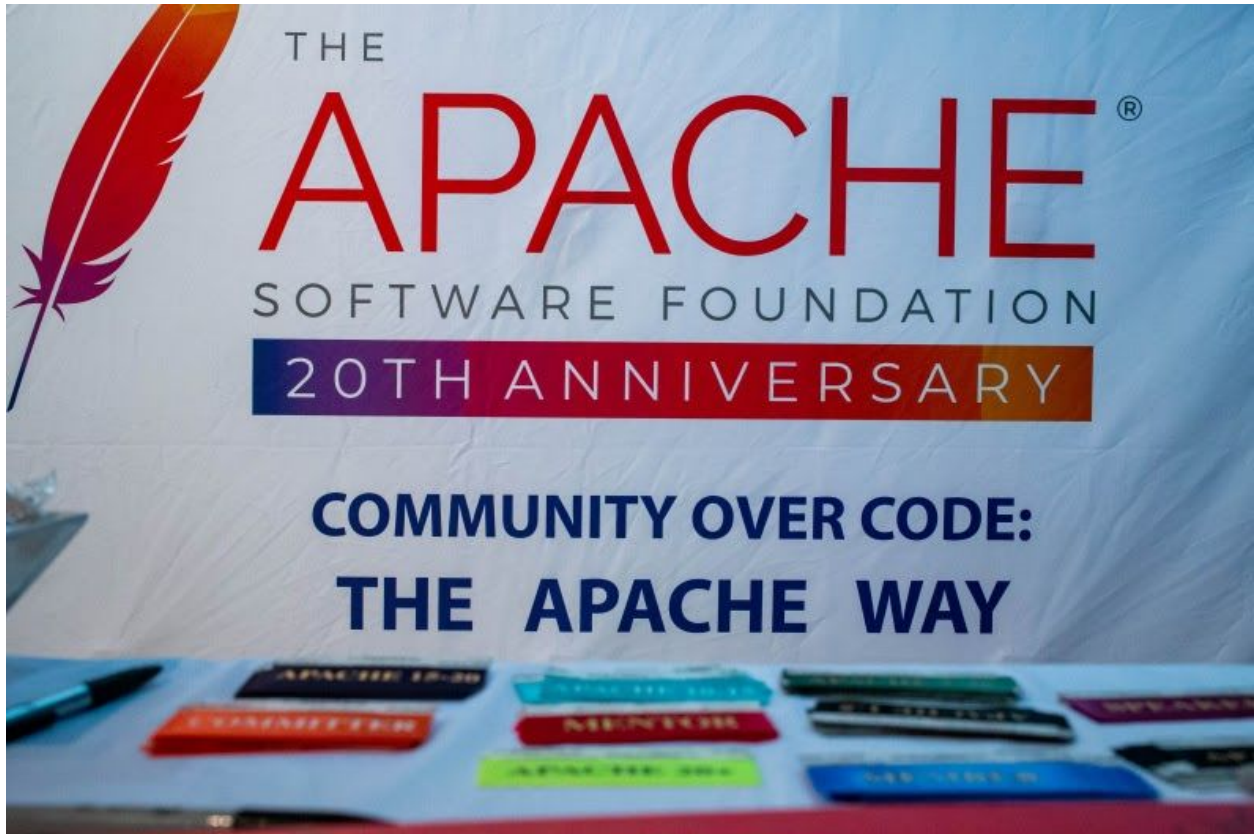
EU-FOSSA 2 Hackathon

The European Commission's DG DIGIT (Directorate General for Informatics) connected with ASF Marketing & Publicity for assistance with their second FOSSA (EU-Free and Open Source Software Auditing) hackathon less than two weeks before the event was to take place.

Initially planned around Apache Tomcat, the DG DIGIT team were seeking additional participation from ASF Projects and their communities for the hackathon. ASF Marketing & Publicity secured commitments from members of the Apache Camel, Karaf, PLC4X, SINGA (incubating), and SpamAssassin Project Management Committees to participate in-person at the EU-FOSSA 2 hackathon in Brussels. Successes included educating participants on various Apache projects and the Apache Way of community-led development, as well as a PGP keysigning.
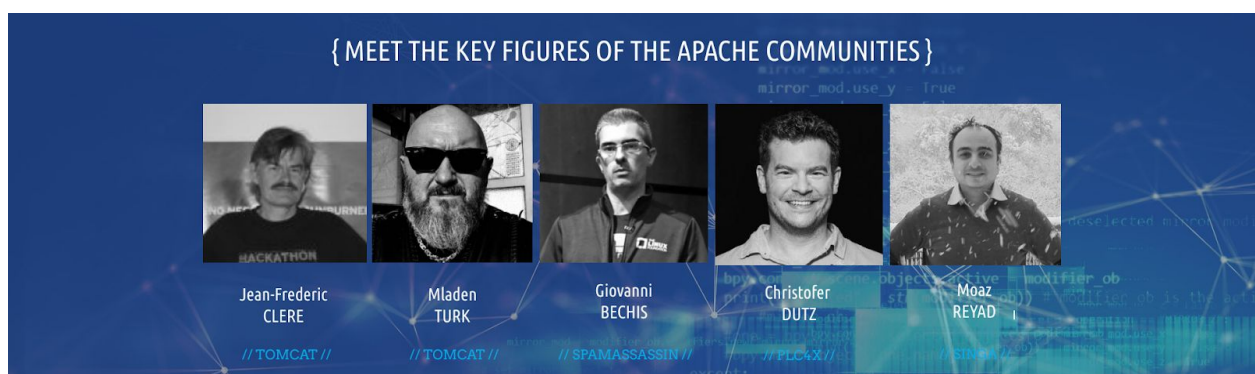
Furthermore, ASF Marketing & Publicity negotiated with EU DIGIT to become a Community Partner at ApacheCon Europe in Berlin/October 2019. Their participation included a keynote by Thomas Gageik, DG DIGIT Director for Digital Business Solutions https://www.youtube.com/watch?v=2EvCF4XKLso , as well as

presentations by Saranjit Arora, EU-FOSSA 2 Project Manager, and Marek Przybyszewski, Information Systems Architect at European Commission - DIGIT.

To learn more, and see the video and photos from the event, visit
https://joinup.ec.europa.eu/collection/eu-fossa-2/news/eu-fossa-2-apache-hackathon

Central Services

Established early 2019, the ASF Central Services team assists with creative projects that range from logo development to Website refreshes on the Foundation level as well as for individual Apache Projects. Highlights include:

ASF Badges

From ASF 20th Anniversary assets to podlings under development in the Apache Incubator to "Powered By Apache" templates for use by ASF Projects and their communities, ASF Badges are pictorial marks of the Apache Feather with a variety of taglines. New this year is a #LoveApache badge, which has been adopted by many members of the community in their social media profiles as well as Apache projects and their communities.

The #LoveApache badge was then adopted for use in the ApacheCon Europe promotions

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"Build Your Badge" generator

We also offer a generator that automatically places your logo into the "Powered by Apache" and "#LoveApache" templates. This was contributed by ApacheCon Europe producers, who developed the tool that was then extended by ASF Central Services.
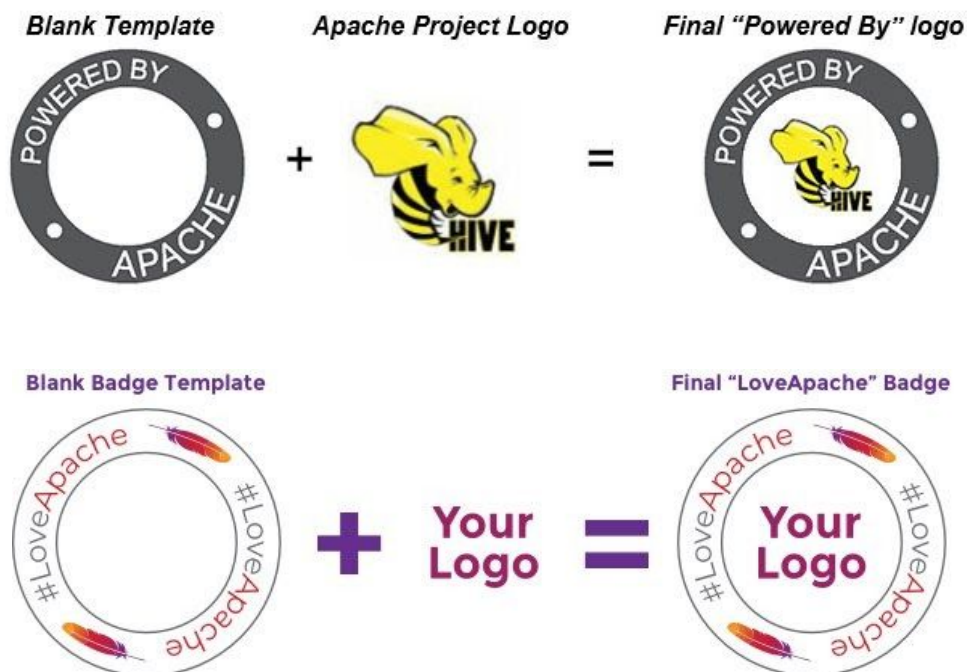
For more information and to see our press kit for graphics and style guide, visit https://www.apache.org/foundation/press/kit/

Press Releases

16 April 2020: The Apache Software Foundation Announces Apache® ShardingSphere™ as a Top-Level Project

26 March 2020: The Apache® Software Foundation Celebrates 21 Years of Open Source Leadership

3 March 2020: The Apache Software Foundation Announces Apache® Brooklyn™ v1.0

27 February 2020: The Apache Software Foundation Announces 20th Anniversary of Apache® Subversion®

4 December 2019: The Apache® Software Foundation Welcomes CloudBees as its Newest Targeted Sponsor at the Platinum Level

4 November 2019: The Apache Software Foundation Announces Apache® SINGA™ as a Top-Level Project

24 September 2019: The Apache Software Foundation Announces Apache® Rya® as a Top-Level Project

13 August 2019: The Apache® Software Foundation Announces Annual Report for 2019 Fiscal Year
11 July 2019: The Apache® Software Foundation Announces Program for ApacheCon™ Europe
5 June 2019: The Apache® Software Foundation Announces Program and Early Registration Incentives for ApacheCon™ North America
20 May 2019: The Apache Software Foundation Announces Apache® Dubbo™ as a Top-Level Project

Foundation Statements
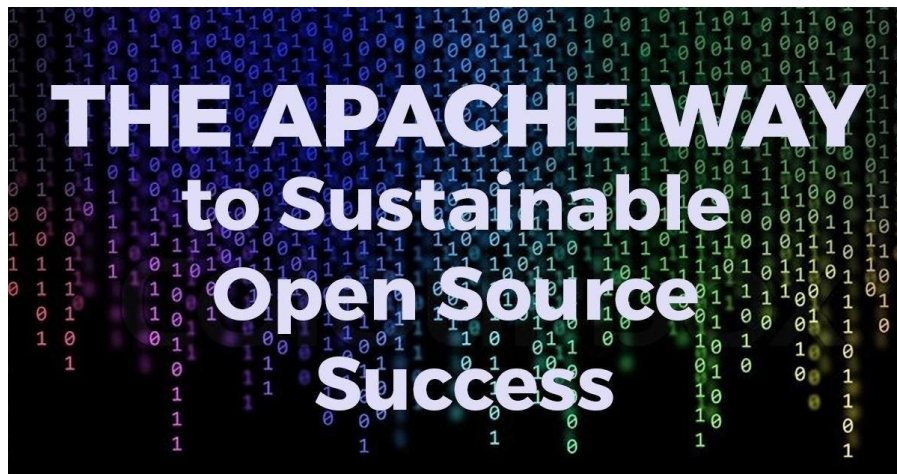
Quarterly and Annual Reports from the past three fiscal years, as well as select Foundation statements are available at
http://www.apache.org/foundation/reports.html

"Success at Apache"

Launched in 2016, "Success at Apache" focuses on the people and processes behind why the ASF "just works". "Project Perspectives" are posts from Apache Projects and their communities on how The Apache Way has contributed to their success.. During FY2020 the following posts were written by members of the Apache community:

Success at Apache: Welcoming Communities Strengthens the Apache Way
by Jarek Potiuk

Success at Apache: Google Summer of Code Mentorship --inside the GSoC 2019 Mentor Summit
by Sanyam Goel & Kevin A. McGrail

Success at Apache: Literally
by Chris Thistlethwaite

Success At Apache: "Mentor Your Mentor"
by Patricia Shanahan

Success at Apache: Why you'd want to become an Apache Committer
by Dmitriy Pavlov

Success at Apache: The Path To Berlin
by Isabel Drost-Fromm

Project Perspectives: Apache Weex (incubating) and The Apache Way
by York Shen

Success At Apache: Positively impacting the world one contribution at a time
by Dinesh Joshi

For more information, visit
https://blogs.apache.org/foundation/category/SuccessAtApache

Inside Infra

"Inside Infra" is a newly launched interview series with members of the ASF Infrastructure team who share their experiences with Sally Khudairi, ASF VP Marketing & Publicity.

Meet Chris Thistlethwaite https://s.apache.org/InsideInfra-Chris
Meet Drew Foulks https://s.apache.org/InsideInfra-Drew

Brand Management

by Mark Thomas

Operations

The work of the Brand Management team falls broadly into one of five categories:
- providing advice to projects
- helping companies building products based on Apache software use our marks correctly
- trademark registrations
- granting permission to use our marks
- addressing potential infringements of our marks

The volume of activity this year has been broadly the same as last year. Registrations, and particularly transfers, continue to be lengthy processes but our tracking system continues to help us keep on top of everything.

This year we saw requests to use Apache marks for user groups, events, merchandise, training courses, marketing material, books, scientific papers, Websites, t-shirts and to identify integrations with Apache projects with nearly all requests being granted, subject to our Trademark Usage Policy. The few requests that are not granted often relate to using a derivative of our logos - something we do not permit. There have also been a few cases of requests being made for marks that the ASF does not own which we have redirected to the correct owners.

Use of our marks for events is now dependent on the event having an acceptable anti-harassment policy. This year also saw a number of proposed events adjust their dates to avoid conflicts with ASF events.

We provided a range of advice to projects over the year including setting up an external package registry, podling naming, community managed sites, registration of marks, 'official' social media accounts, assignment of marks, name changes, event sponsorship, linking to external support services, using more than one logo within a project, listing logos of companies that use an Apache project and linking to third party builds.

In light of the additional overhead caused by GDPR compliance, we opted to remove the analytics functionality from the Brand Management Web pages.

The total expenditure on Brand Management has fallen slightly for the second year in a row. While the expenditure has remained steady, breakdown of expenditure shows significant variation.

Area	FY2019	FY2020
Registration	30%	70%
Renewal	10%	10%
Assignment	15%	10%
Infringement	45%	10%

This highlights how a small number of tasks can quickly dominate the expenses. Last year advice regarding the handling of a small number of infringements dominated the expenditure. This year it has been some complications registering Apache marks in China that have dominated. It is difficult to predict in advance where these costs will arise.

The impact of COVID-19 has been minimal on the Brand Management team so far. We have not observed a noticeable change in the volume of either internal or external requests. We do expect some external processes such as registrations and transfers will take a little longer but have yet to observe any noticeable delay.

Registrations

The registration of APACHE in the US completed this year.

A number of registrations came up for renewal this year. We review each renewal as it comes up and, as a result, opted not to some of those registrations. The remaining renewals are either in progress or have completed.

Some registrations, particularly those outside the US, tend to be more complex. This year some of our registrations in China have required additional work to help them progress.

We also started a small number of new registrations this year.

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Infringements

Potential infringements are brought to our attention from both internal and external sources. The majority of infringements we see are accidental and our project communities are able to resolve these quickly and informally with occasional input from the Brand Management team. A small number of issues take longer to resolve.

It has been very pleasing to see a number of PMCs successfully address potential infringements independently this year. As the ASF continues to grow, having PMCs that can operate more independently in this area helps the overall Brand Management capability scale to match the ASF's growth.

And finally...

The Brand Management team welcomes your comments and suggestions as well as any questions you might have. Please see https://www.apache.org/foundation/marks/contact for our contact details.

Conferences

by Rich Bowen

In the reporting period we held two events:

ApacheCon NA 2019 - 9-12 September 2019 in Las Vegas, Nevada

To celebrate the 20th anniversary of the Foundation, we held a larger-than-usual event in Las Vegas. On hand to celebrate with us were several of the Founders. We had an attendance of close to 700, and were sponsored by IBM, Datastax, Google Cloud, Tencent Cloud, Red Hat, AWS, Ballerina, and many other companies.

Keynotes included Samaira Mehta, James Gosling, David Brin, and a panel of the Apache Software Foundation founders, including Mark Cox, Roy Fielding, Jim Jagielski, Brian Behlendorf, Cliff Skolnick, Sander Striker, and Lars Eilebrecht.

Further details of the event may be found at https://www.apachecon.com/acna19/

Thank you to all of our sponsors, attendees, and speakers, for making this a memorable event.

ApacheCon EU 2019 - 22-24 October 2019, Berlin, Germany

Held at the historic Kulturbrauerei in Berlin, ApacheCon EU 2019 was attended by 300+ Apache enthusiasts, and was another celebration of 20 years of the Apache Software Foundation. Thanks go to Google Cloud and eBay for sponsoring this event.

Keynotes included Thomas Gagiek, David Nalley, and a panel of the Founders, including Mark Cox, Lars Eilebrecht, and Dirk-Willem van Gulik.

Further details may be found at https://aceu19.apachecon.com/

COVID 19

Due to the global COVID 19 pandemic, we were forced to cancel several events that were planned for the reporting period. Details on these events may be found on the Apache blog.

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Canceled events -
https://blogs.apache.org/conferences/entry/cancellation-of-apache-events-in
- Apache Roadshow/DC, previously scheduled for 25 March 2020
- Apache Roadshow/Chicago, previously scheduled for 18-19 May 2020
- Apache Roadshow/Seattle, previously scheduled for 10-12 June 2020 and then postponed to September (Not in the reporting period, but included for completeness.)

Upcoming

At this time, we are still planning to hold ApacheCon in the September timeframe. Exact details of this event are still developing, and will be announced at https://apachecon.com/ as soon as we know more.

Community Development

by Sharan Foga

The main focus of the first quarter was to help promote and support ApacheCon NA and ApacheCon EU. Our Community track has always been popular and so forms an integral part of the content for both events. As a result of a great CFP response, we ran a 3 day track in NA and a 2 day track in Europe.

Following on from the discussions in the previous year on ways to drive better diversity and inclusion, it was decided to separate out the D&I topics onto a separate mailing list specially tasked to define and co-ordinate strategies to improve diversity and inclusion across the whole foundation.

In August and September we focussed on supporting the special anniversary preparations for ApacheCon NA in Las Vegas and ApacheCon EU in Berlin. The Apache booth staffed by our community volunteers was a central hub where all attendees were encouraged to sign the Apache feather.

We also participated at CCOSS 19 in Guadalajara, Mexico where we ran an Apache track filled with content ranging from Getting Started at Apache all the way to Governance and Open Source Licences. This was a great opportunity to connect with potential new contributors to Open Source.

The ASF has once again been chosen as a GSoC mentor organisation and a key role of the Community Development team is to help oversee the involvement of any participating Apache project. A total of 20 students will be mentored by the ASF throughout the coming year.

At the beginning of 2020 a key theme was how to encourage ASF participation locally. The result was the establishment of Apache Local Communities (ALC). The ALC comprises local groups of Apache enthusiasts, called an 'ALC Chapter' that will be responsible for organising local Apache related events. To create the necessary oversight for these groups we have agreed a set of governance processes including how they are formed, roles and responsibilities, how events are to be organised and how to dissolve a group if it is no longer active.

We currently have 4 ALCs that have been established, Indore, Budapest, Warsaw and Beijing. They have all received good feedback on their activities.

The latest statistics from our mailing list shows that we have 963 subscribers and during the year have had 3,760 emails sent discussing over 2,400 different topics.

Diversity & Inclusion

by Griselda Cuevas

Established the D&I committee

The D&I committee was established in 2019 in order to build equity in our community by developing tools and frameworks to foster inclusion and increase diversity in all phases of Apache projects. The committee selected the following values as the foundation of their work: Respect, empathy, openness, patience, candor & dependability.

FY 2020 Goals

- Gather scientific data to understand the current status of Diversity and Inclusion at the ASF
- Raise awareness in our community about the importance of Diversity & Inclusion in the Open Source world
- Have a measurable list of key indicators to track over time

Noteworthy Achievements

- Hired a professional firm experienced in the study of Open Source communities
  - Redesigned the Community Survey
  - Analyzed influential factors on the contributor experience
  - Designed a contributor experience interview to deep dive on findings from the survey
- Established the ASF as an Outreachy community
  - Hosted 4 Outreachy interns in 3 projects
  - Raised $101,000 from 2 Sponsor organizations
- Delivered three talks on the status of D&I at the ASF

Future Goals

- Instrument the Apache contributor funnel to establish a participation baseline for underrepresented groups
- Create a toolkit to address the top 3 entry barriers for new contributors from under represented groups
- Be the trusted, go-to partner for PMCs when it comes to D&I
- Have committer on-boarding and retention plans, built with and shared with the PMCs

- Improve the accessibility of Apache projects by increasing participation of at least one underrepresented group by 20% across all Apache projects

Projects and Code

There are more than 350+ Apache Projects and initiatives at the ASF:

➔ Apache Top-Level Projects --201 committees are managing 339 projects and sub-projects; 9 of which are newly-graduated Top-Level Projects. 8 projects retired to the Apache Attic.

➔ Incubating podlings --45 projects are currently undergoing development in the Apache Incubator; 6 projects were new entrants to the Incubator, and 3 were retired.

Each Apache Project is overseen by a Project Management Committee (PMC) that guides its day-to-day operations, including community development and product releases.

Highlights
- ➔ continued guardianship of 227M+ lines of code in the Apache repositories;
- ➔ ~8M lines of Apache code added in FY2020, valued at approximately $600M worth of work; total value exceeding $20B (CoCoMo model)
- ➔ 150TB+ source code downloads from Apache mirrors (excludes convenience binaries); = ~2 Petabytes over the past year;
- ➔ 2,045 git repositories, containing ~250GB of code and repository history;
- ➔ 12,413 people created 63,172 new issues; 2,868 people closed 54,633 issues
- ➔ Web requests received from every Internet-connected country on the planet;
- ➔ 35M+ page views per week across apache.org.

Apache Top-Level Projects

Apache Incubating Podlings

Projects in the Apache Attic

Organizational Activity

Current activity, organisational average

- Bugs/Issues
- Code commits
- Interactions with users
- Development discussions
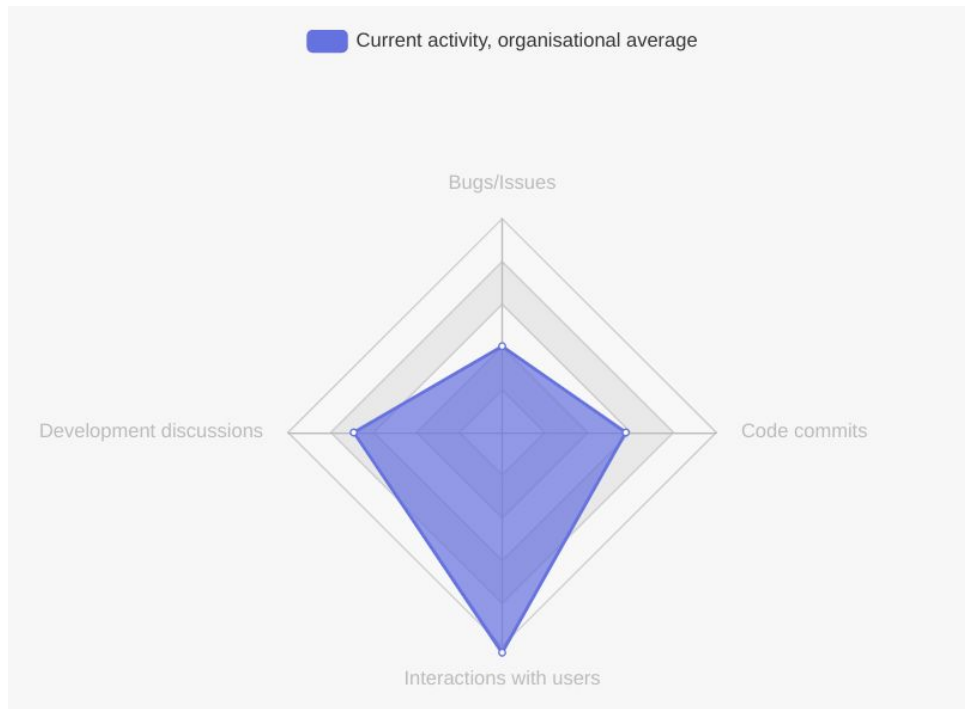
Worldwide Activity

Demonstrating 5,444,758 visits from 229 countries

High 137613

Low 0
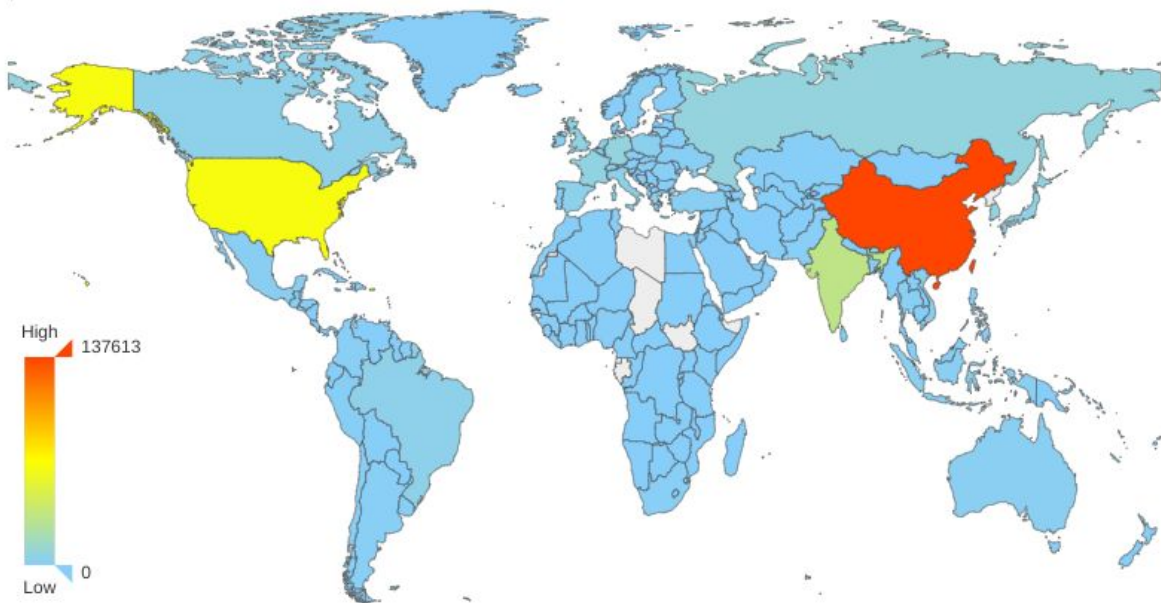
Most Active Sources

From 1,474 log files

- Apache Kafka 13.56%
- Apache Hadoop 11.97%
- Apache Lucene 7.16%
- Apache POI 6.86%
- Apache ZooKeeper 5.89%
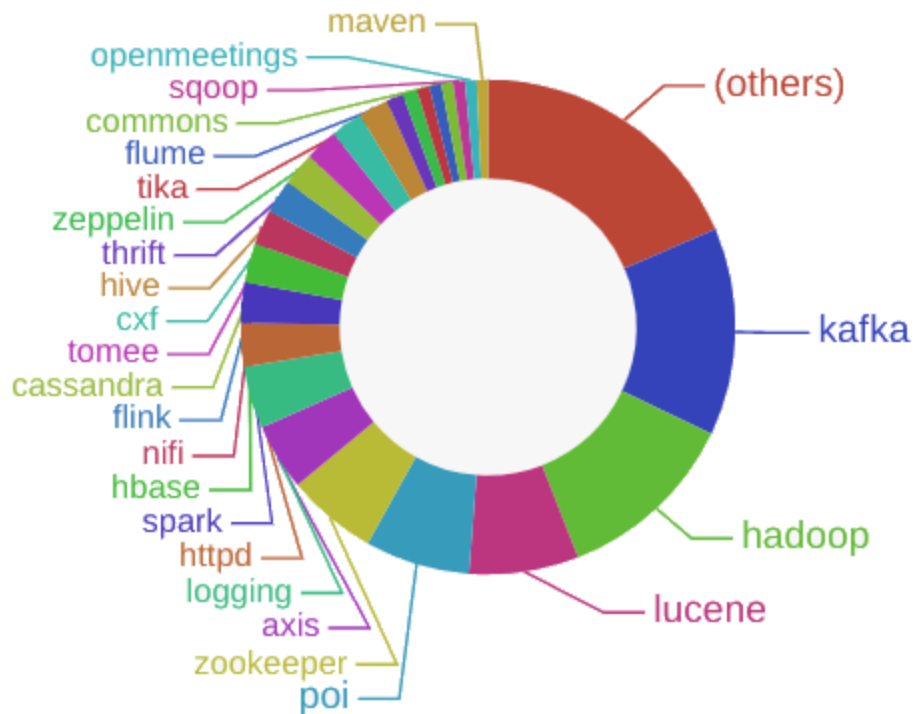
Commit History
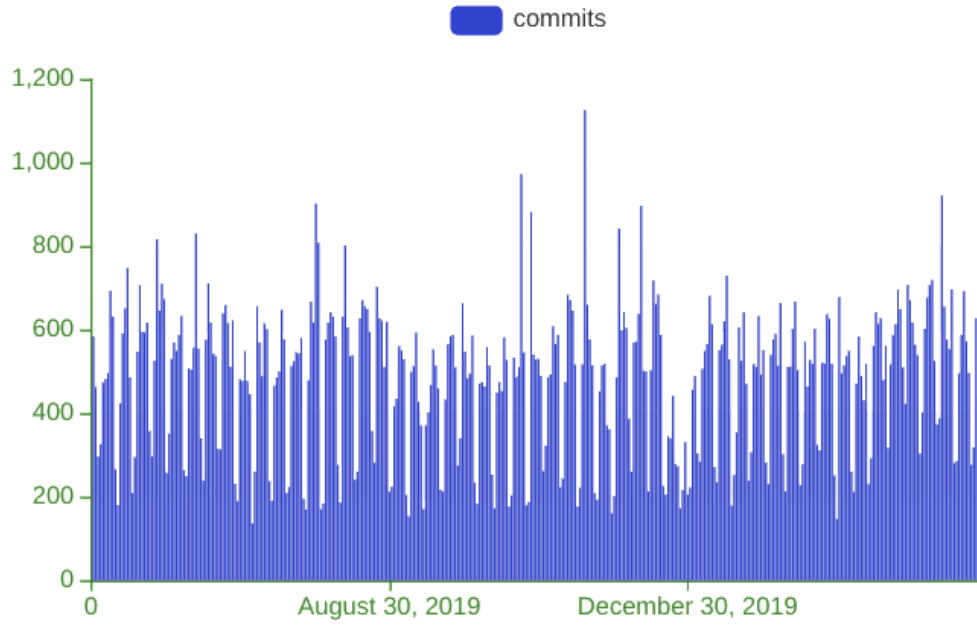
Lines of Code Changed
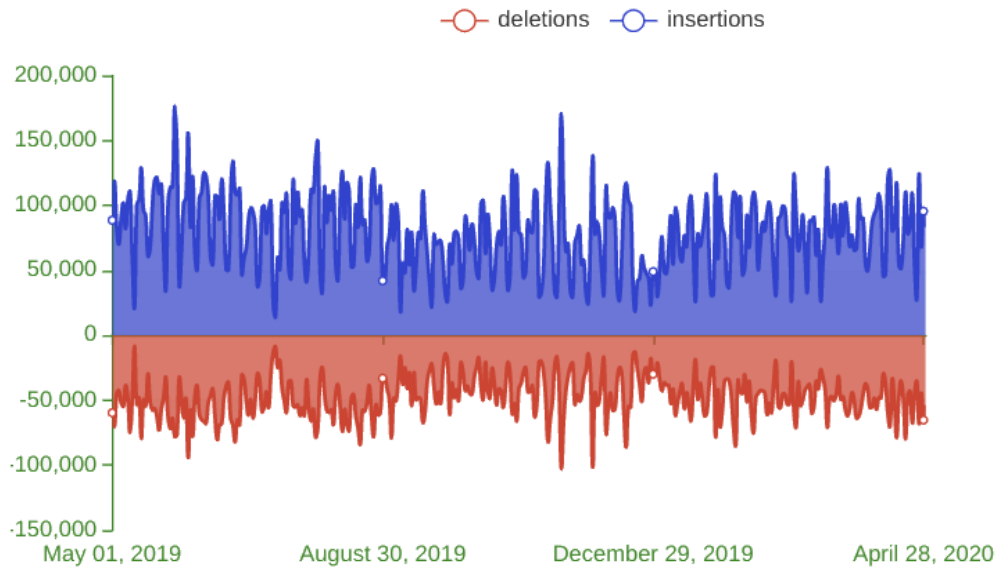
Top Repositories by Number of Commits
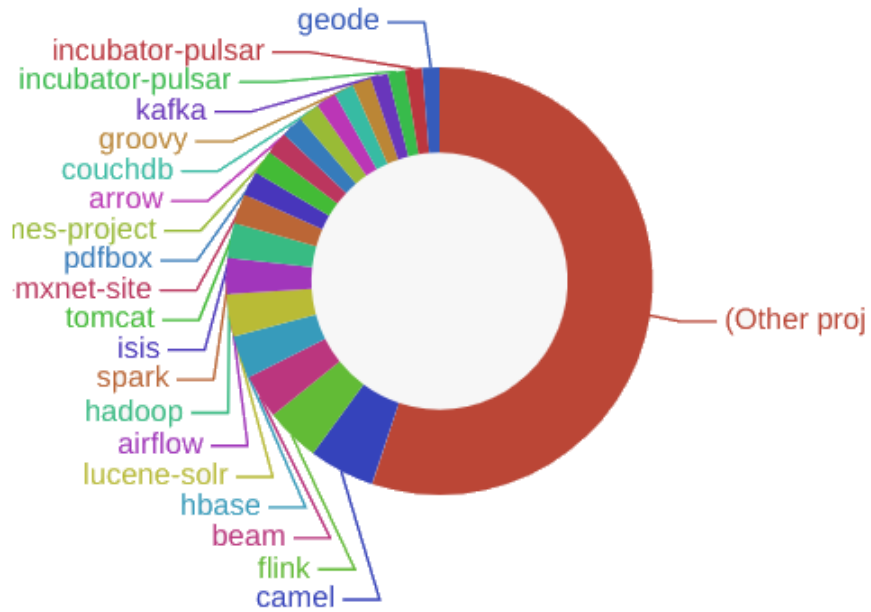
Top Repositories by Lines of Code

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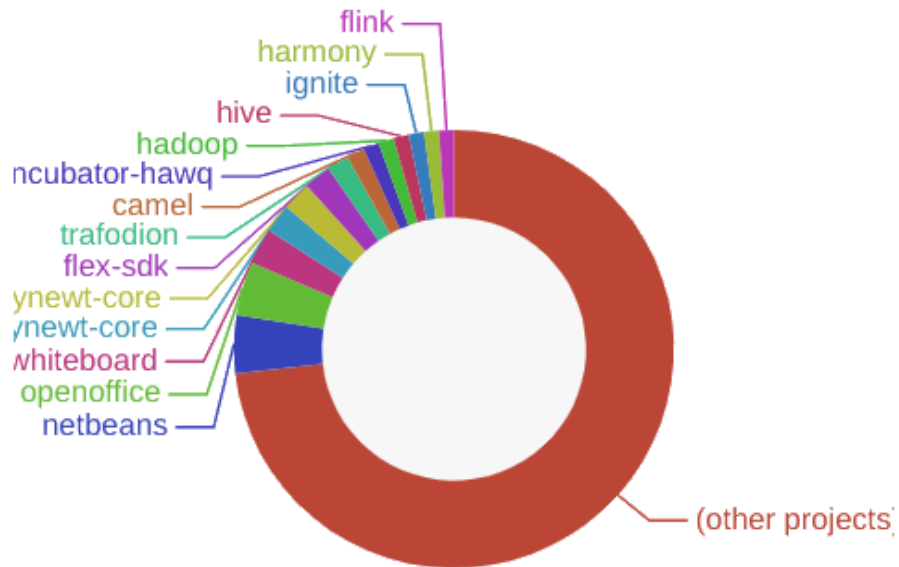
GitHub Traffic

Most active sources: Clones
- Apache Thrift 54.69%
- Apache Beam 5.66%
- Apache Cordova Node 5.33%
- Apache Arrow 4.55%
- Apache Geode 1.76%

Most active sources: Visits
- Apache Spark 14.36%
- Apache Flink 5.92%
- Apache Camel 5.67%
- Apache Kafka 4.46%
- Apache Beam 3.42%

Most active sources (clones)
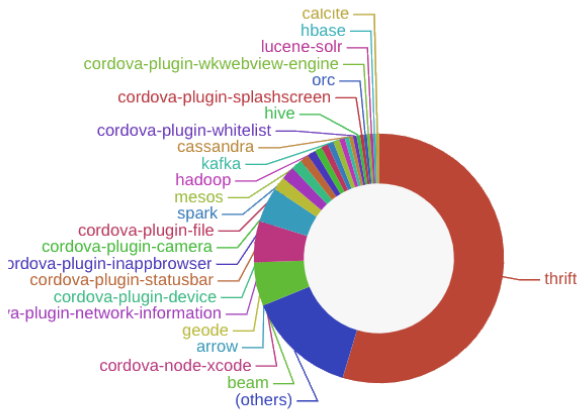
Most active sources (visits)
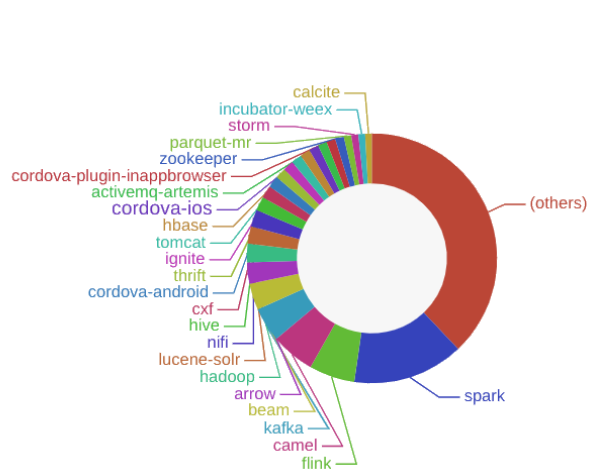
Issues

Issue history
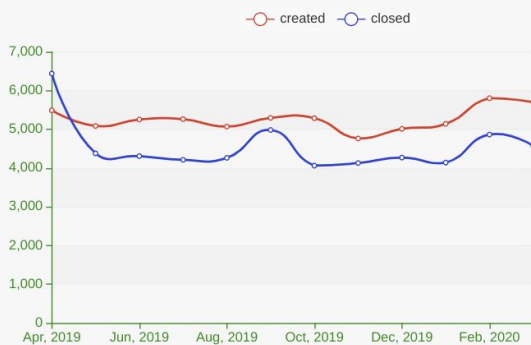
Creators/closers of tickets
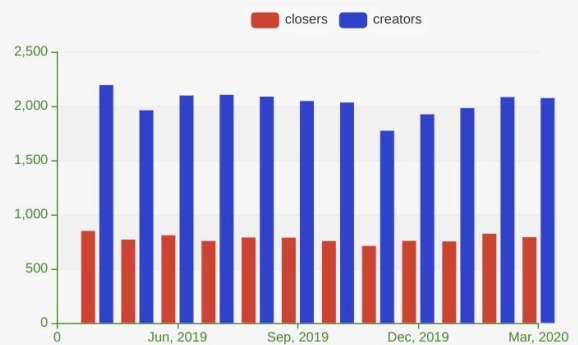
Project Relationships: All Apache Projects

7456 connections; highest connection count is 148, average is 60 across all 245 projects.
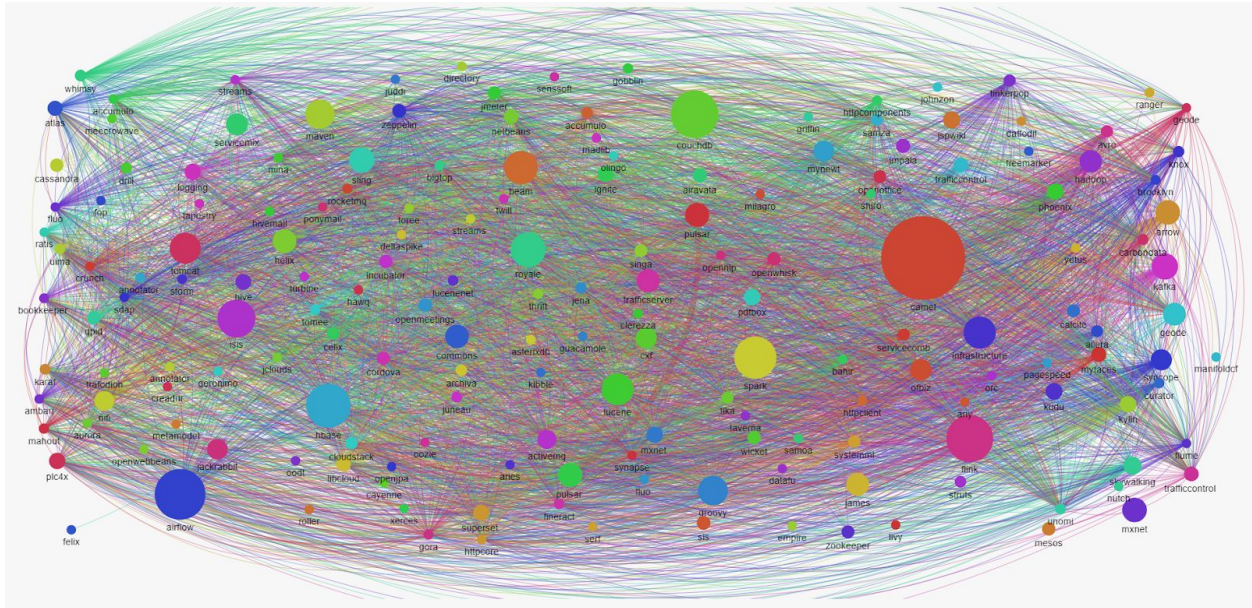
Project Relationships: Apache Big Data Projects

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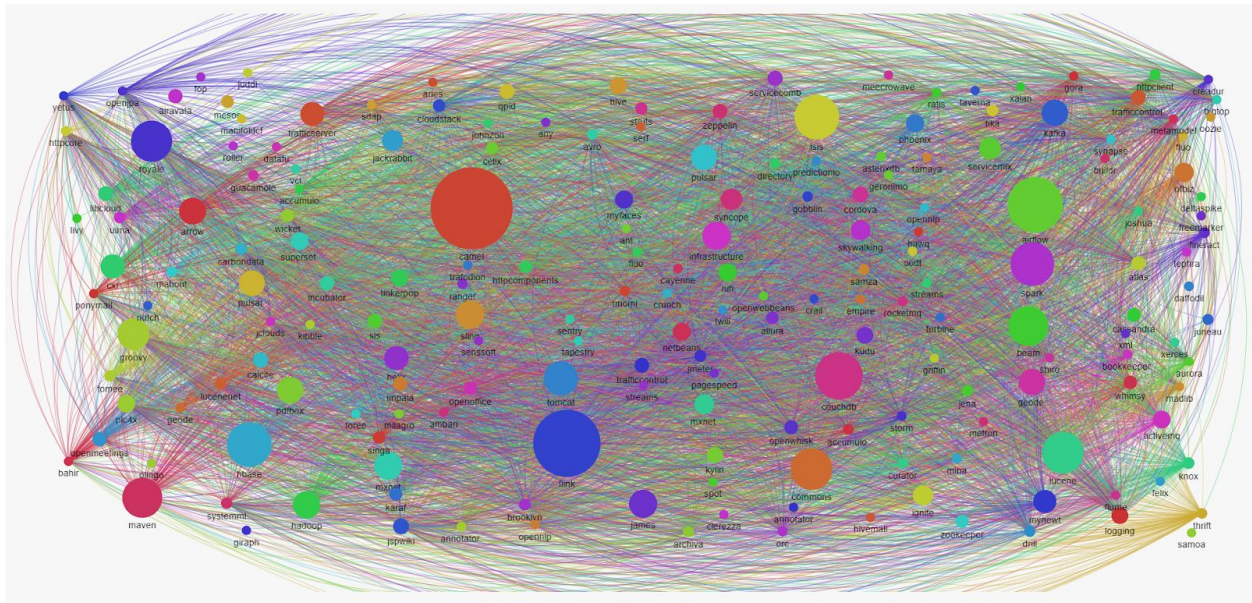
Project Relationships: Apache Cloud Projects

Language Breakdown

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http://www.apache.org/
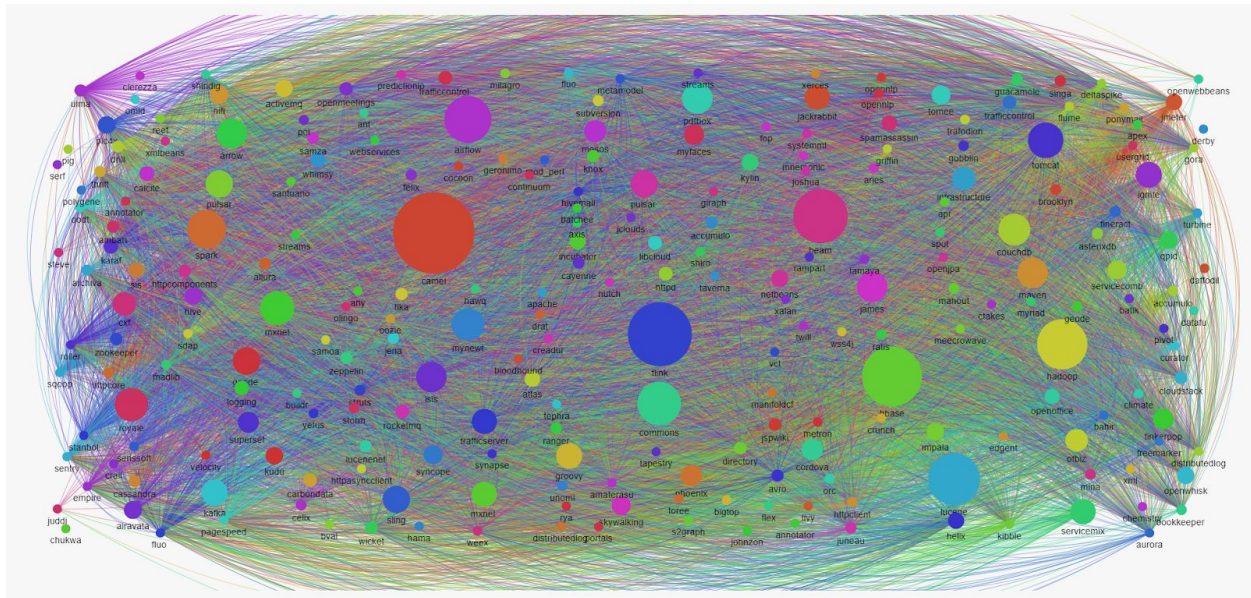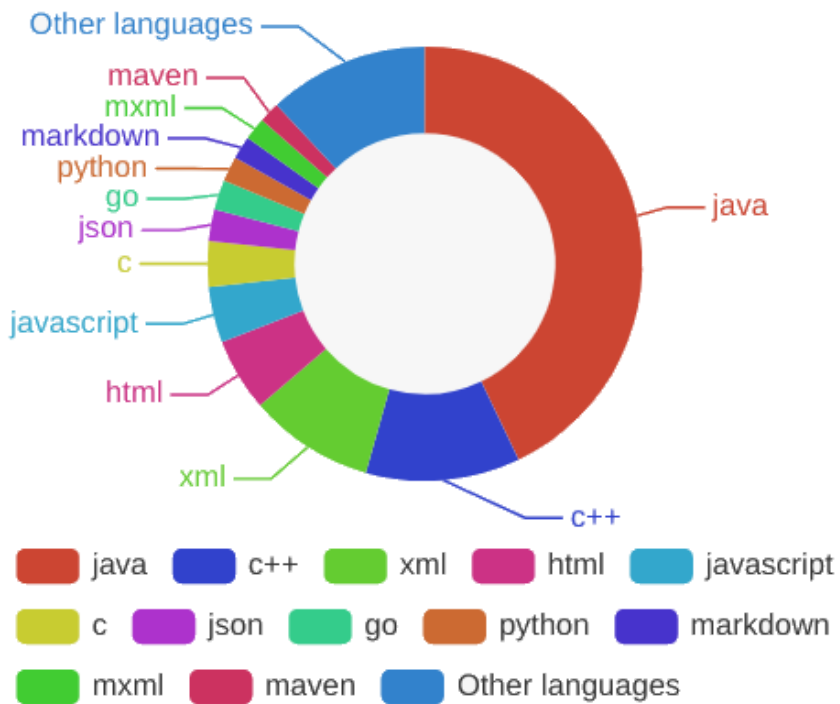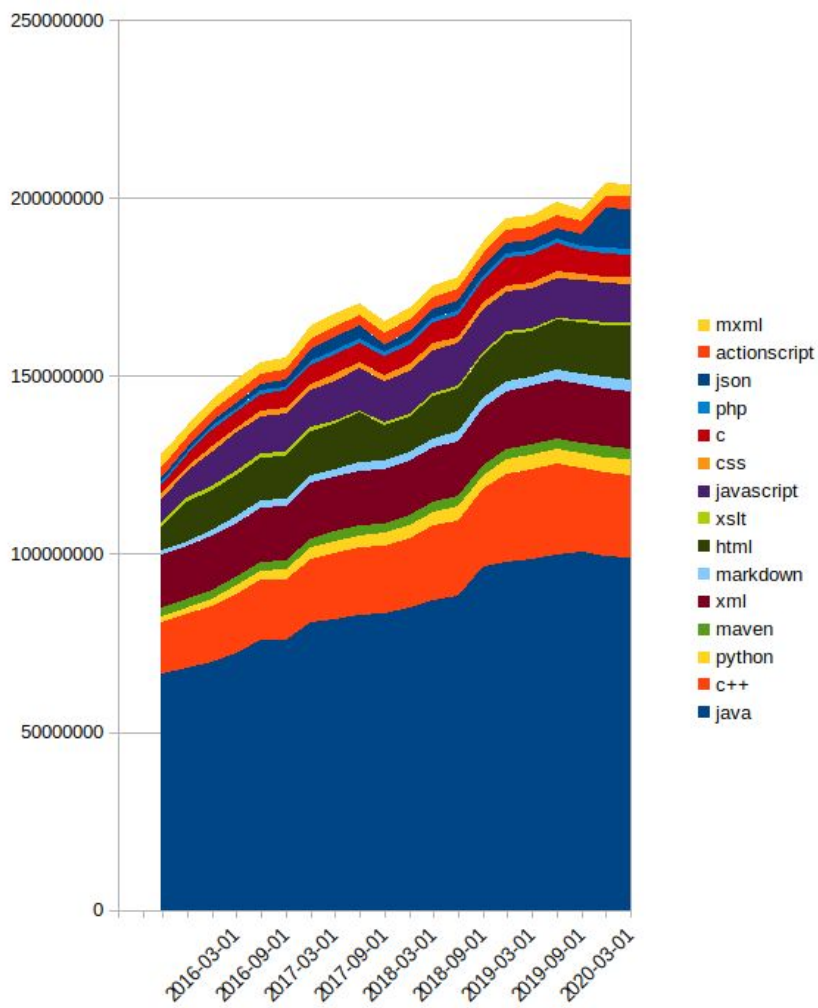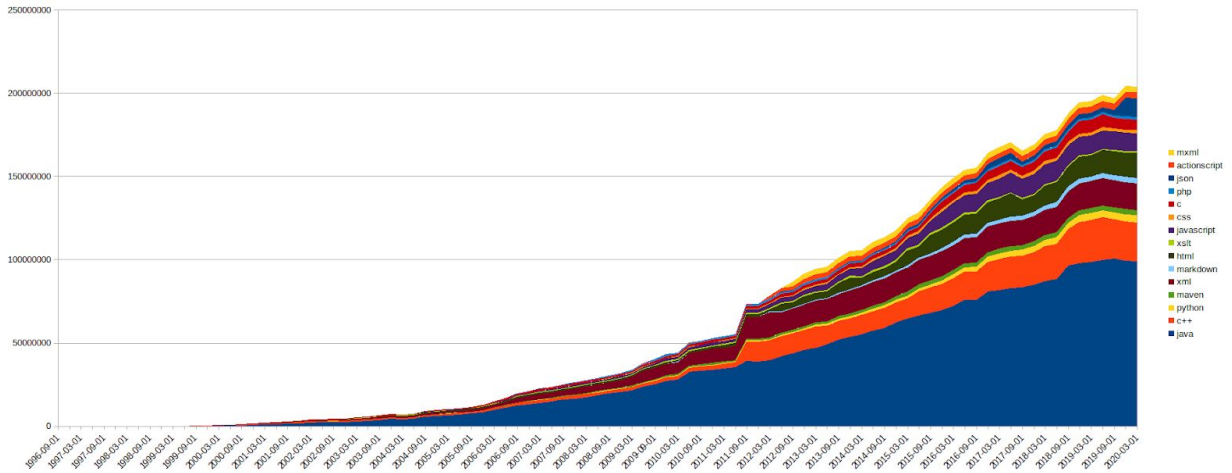
Mail

"If it didn't happen on-list, it didn't happen" ... email is the primary communications channel at the ASF. Learn more at https://apache.org/foundation/mailinglists.html

During FY2020, 19,396 authors sent 2,137,560 emails on 907,870 topics.

Top Senders: (Projects + Committers)
- GitBox 1.6%
- Apache AsterixDB dev@ 1.51%
- Apache Whimsy dev@ 1.38%
- Andrea Cosentino 1.08%
- Mark Thomas 0.92%

Most Active dev@ and user@ lists:
- user@flink.apache.org 2.97%
- dev@flink.apache.org 2.96%
- dev@tomcat.apache.org 2.72%
- dev@royale.apache.org 2.72%
- dev@beam.apache.org 2.64%

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http://www.apache.org/
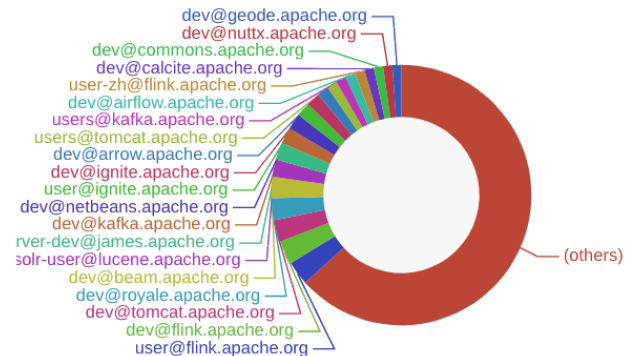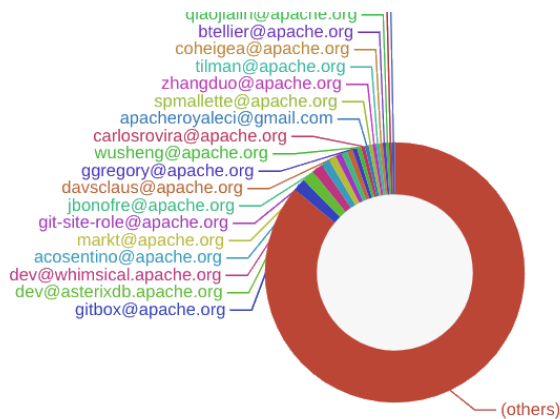
Contributions

Code for all Apache projects is written by more than 7,700 volunteer individuals and employees of corporations across six continents and contributed to the ASF at no cost. The ASF is governed by the community it most directly serves —the people collaborating within its projects.

During FY2020, 2,892 Committers changed 60,132,710 lines of code over 174,889 commits.

All individuals who are granted write access to the Apache repositories must submit an Individual Contributor License Agreement (ICLA). Corporations that have assigned employees to work on Apache projects as part of an employment agreement may sign a Corporate CLA (CCLA) for contributing intellectual property via the corporation. Individuals or corporations donating a body of existing software or documentation to one of the Apache projects need to execute a formal Software Grant Agreement (SGA) with the ASF.

During FY2020, the ASF Secretary processed:

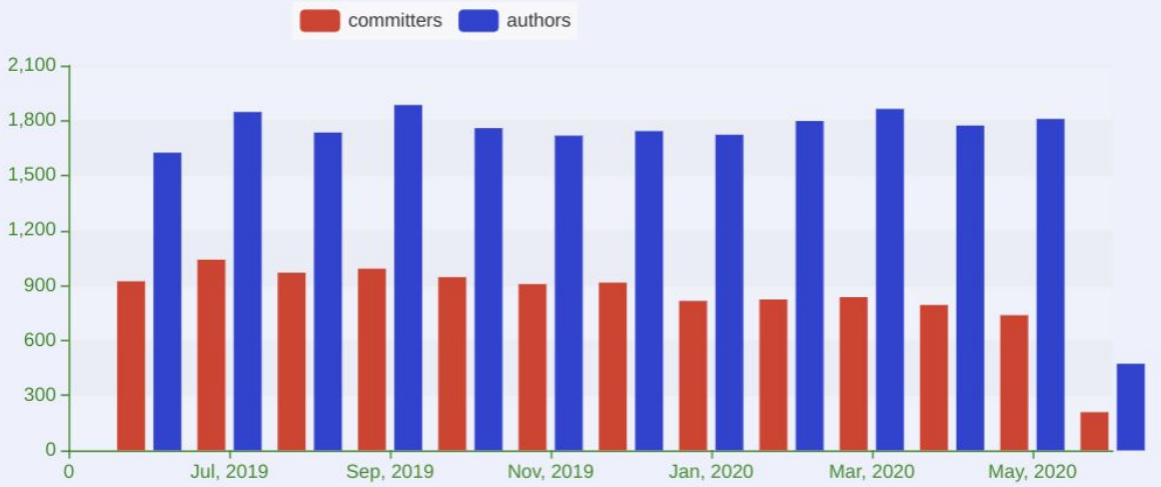➜ 748 ICLAs
➜ 33 CCLAs
➜ 40 Software Grants
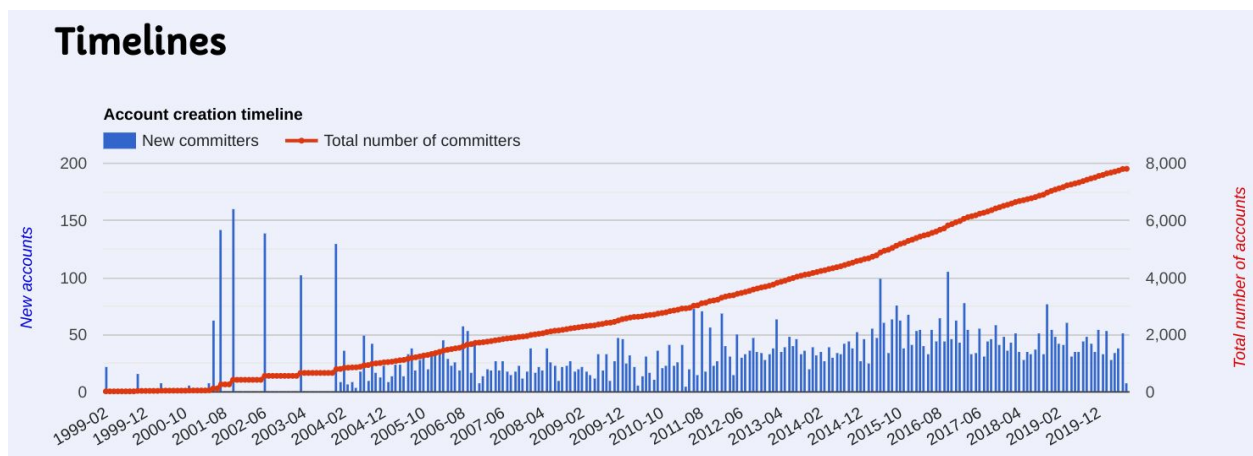
Commits and changes
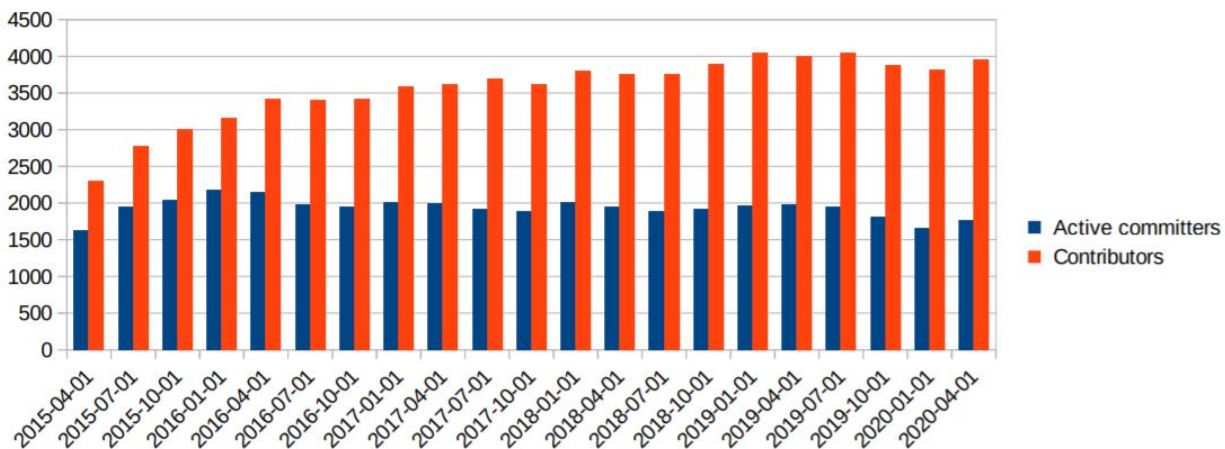
Lines changed, past year:
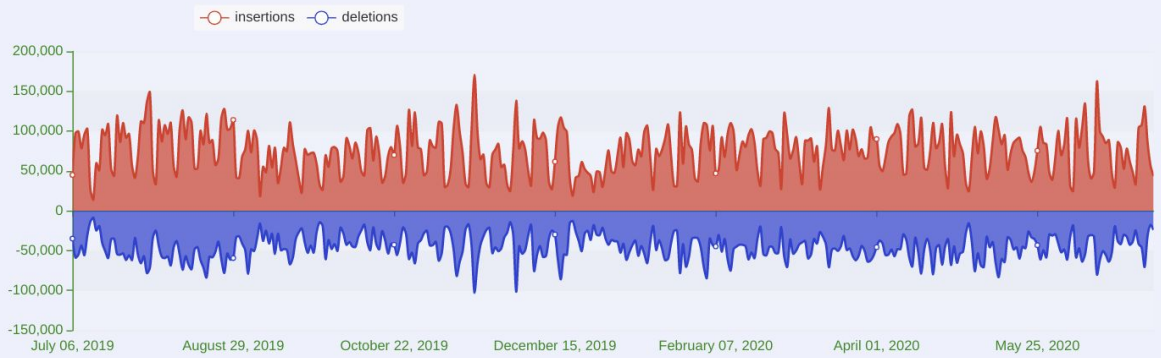
Committers and authors, past year:

Contributor Profile

During FY2020, ~1,800 Apache Committers were active each quarter. Approximately 4,000 contributors helped those Committers test and produce code and documentation for their projects:

Trend-wise, the number of active Apache Committers has remained steady over the past five years, whilst the number of active contributors has nearly doubled. This suggests that workflows have eased to allow for a lower contribution bar for new code and documentation, enabling those with an "itch to scratch" to more easily get a change submitted without needing formal commit access to the code repository.

Welcoming Newcomers

Over the past year Apache Projects have increased their activity with approximately 20% new Committers (contributors who have been granted "write" access to Apache code repositories). Whilst the numbers of contributors are increasing multifold year-over-year, the number of Committers seeking to contribute long-term to the growth of Apache Projects remains steady. This growth provides the opportunity for new talent to participate in Apache projects, with vibrant, diverse communities to support them.

Experience with Apache Software

With growing numbers of individuals contributing code and documentation to Apache projects, the ASF continues to onboard and mentor new talent, whilst retaining more experienced contributors. Nearly half of the contributors this year are new to Apache altogether; approximately more than a quarter are relatively experienced, and the last 25% have long understanding and experience with the Apache Way, our projects, and their communities.
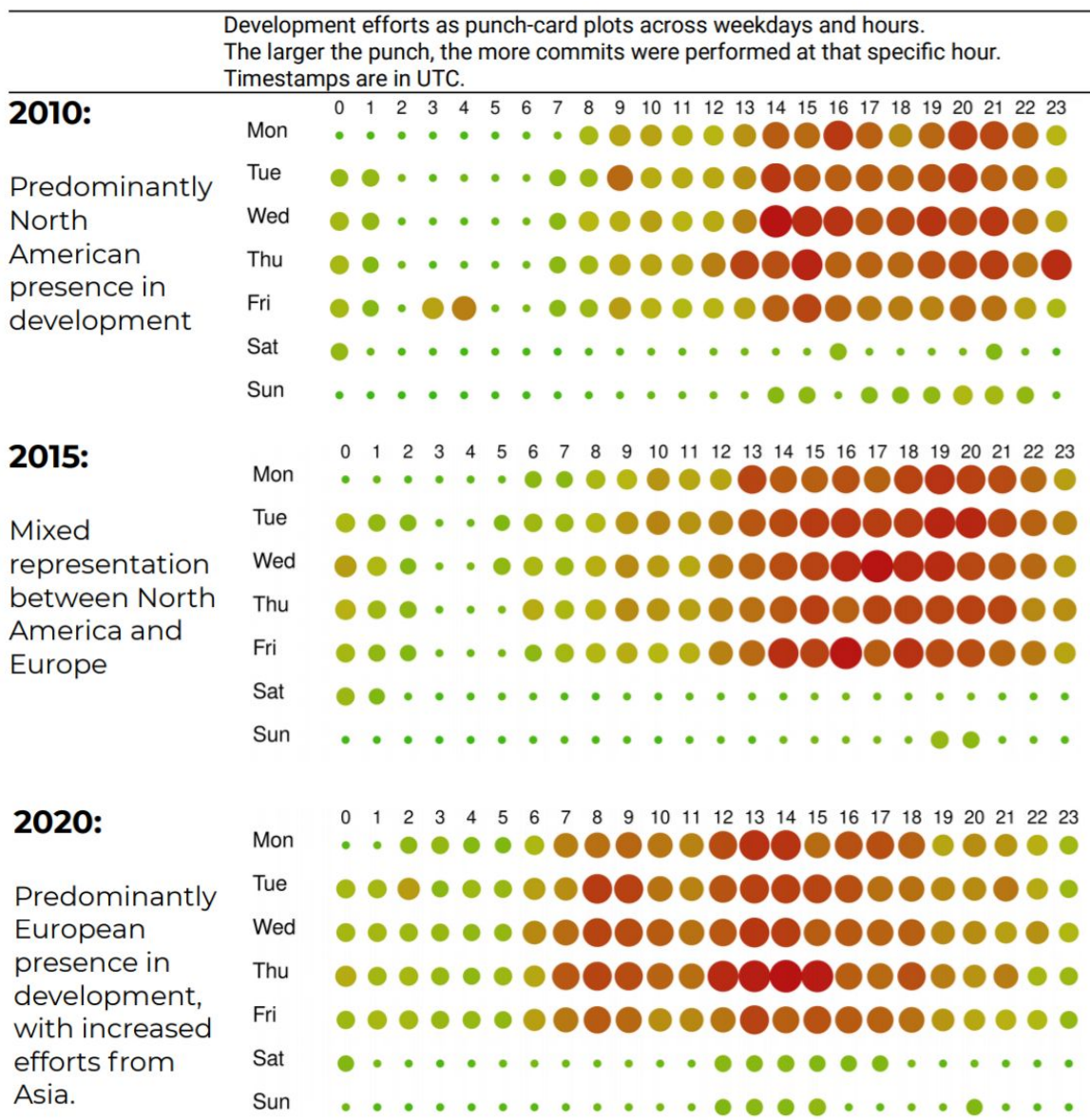

Active Developers Per Month
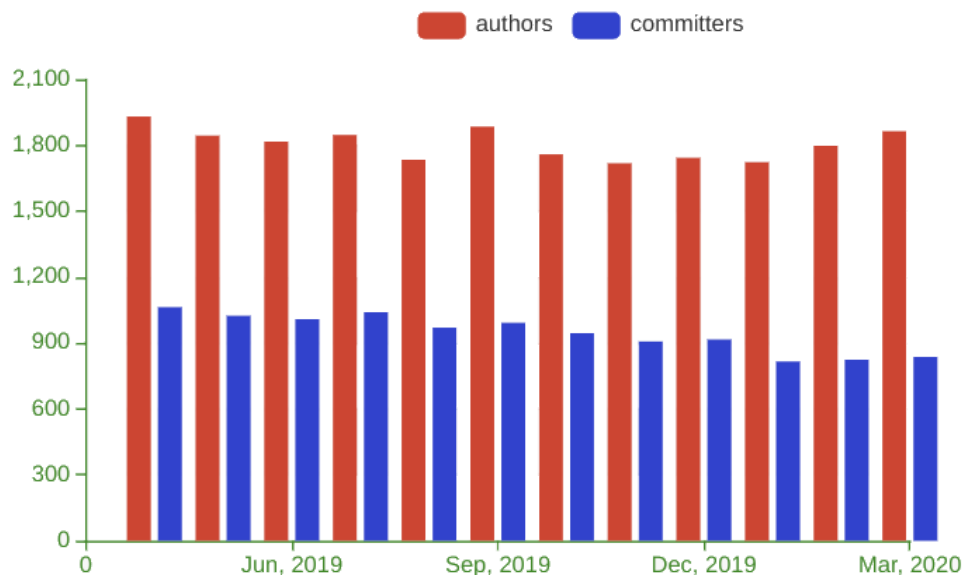
Top 5 Contributors

Andrea Cosentino [filter]
3,819 commits during this period.
532,577 lines changed

Claus Ibsen [filter]
2,737 commits during this period.
807,550 lines changed

Tilman Hausherr [filter]
2,696 commits during this period.
59,124 lines changed

Jean-Baptiste Onofré [filter]
2,695 commits during this period.
575,992 lines changed

Mark Thomas [filter]
2,692 commits during this period.
286,425 lines changed

Regional Contributions

From its inception, the ASF was a North American organization, with a significant level of development on the Apache HTTP Server originating from the United States. As the Foundation grew, new projects and their communities have expanded to Europe. Over the past decade, development effort has predominantly focused in Europe, with relatively equal support from North/South America and Australasia:

Development efforts as punch-card plots across weekdays and hours.
The larger the punch, the more commits were performed at that specific hour.
Timestamps are in UTC.

2010:

Predominantly North American presence in development

2015:

Mixed representation between North America and Europe

2020:

Predominantly European presence in development, with increased efforts from Asia.

ASF Members

Aaron Bannert
Adam Estrada
Adam Fuchs
Adam Jack
Adriano Crestani Campos
Ajith H Ranabahu
Akitoshi Yoshida
Alan D. Cabrera
Alan Gates
Alejandro Abdelnur
Alek Slominski
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Andreas Lehmkühler
Andreas Veithen
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Colm Ó hÉigeartaigh
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Thomas Neidhart
Tony Finch
Vincent Hardy
Vincent Massol
Yoav Shapira
Zeev Surask

Memorial

We celebrate our departed Members, rejoice in their contributions to our community, and honor them here to keep their memory alive.

Henk Penning	29 May 2019
Greg Reddin	30 September 2016
Adrian Crum	1 January 2016
Nóirín Plunkett	29 July 2015
Ian Lynch	24 May 2015
Bruce Atherton	5 September 2013
Dion Gillard	25 September 2008
Maurice Marrink	1 August 2008
Nicolas Chalumeau	4 October 2005
Martin Pöschl	29 January 2004

Contact

For Media/Analyst queries, contact press@apache.org

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