



# JavaOne<sup>SM</sup>

## JSR 354: Money and Currency API



Werner Keil | Otávio Santana

@wernerkeil | @otaviojava | @jsr354

<https://www.jcp.org/en/jsr/detail?id=354>

<http://javamoney.org>



# History and Motivation





# Motivation

- > Monetary values are a key feature to many applications
- > Existing `java.util.Currency` class is strictly a structure used for representing ISO-4217 standard currencies.
- > No standard value type to represent a monetary amount
- > No support for currency arithmetic or conversion
- > JDK Formatting features lack flexibility

# Overview of JSR 354

- > **Core API: `javax.money`**
  - `CurrencyUnit`, `MonetaryAmount`
- > **Conversion API: `javax.money.convert`**
  - `ExchangeRate`, `ConversionContext`
- > **Formatting: `javax.money.format`**
  - `AmountFormatContext`, `MonetaryAmountFormat`
  
- > **Reference Implementation:** `org.javamoney.moneta`
- > **TCK:** `org.javamoney.tck`

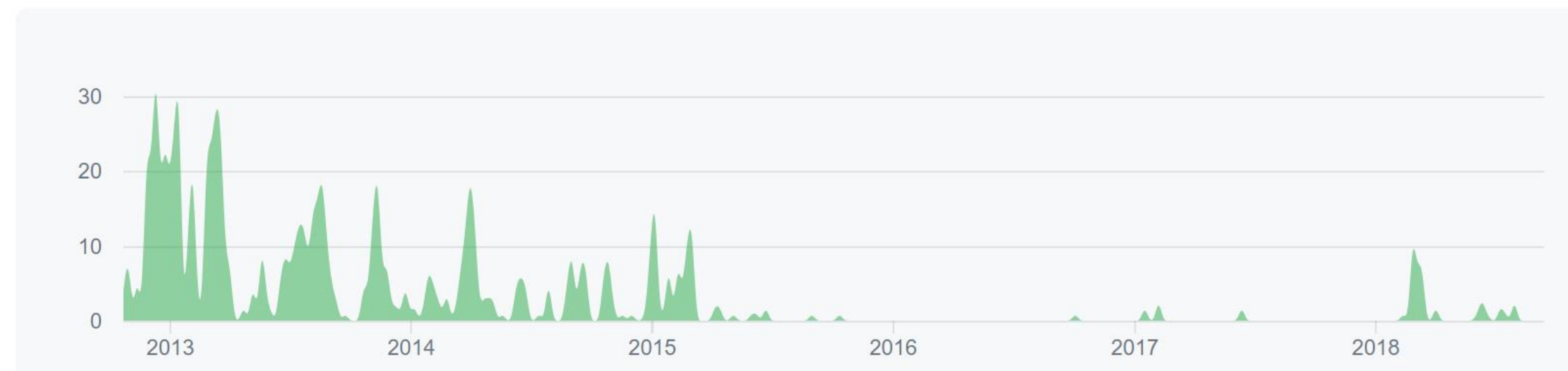
# Stagnation

- > After the Final release there has been very little activity between the second half of 2015 and early 2018.
- > Largely due to Credit Suisse not able to find a Maintenance Lead replacement after Anatole Tresch had left
- > The API being under the JCP Spec License also scared away some Open Source projects from using it

Nov 25, 2012 – Oct 17, 2018

Contributions: Commits ▼

Contributions to master, excluding merge commits



# Demand

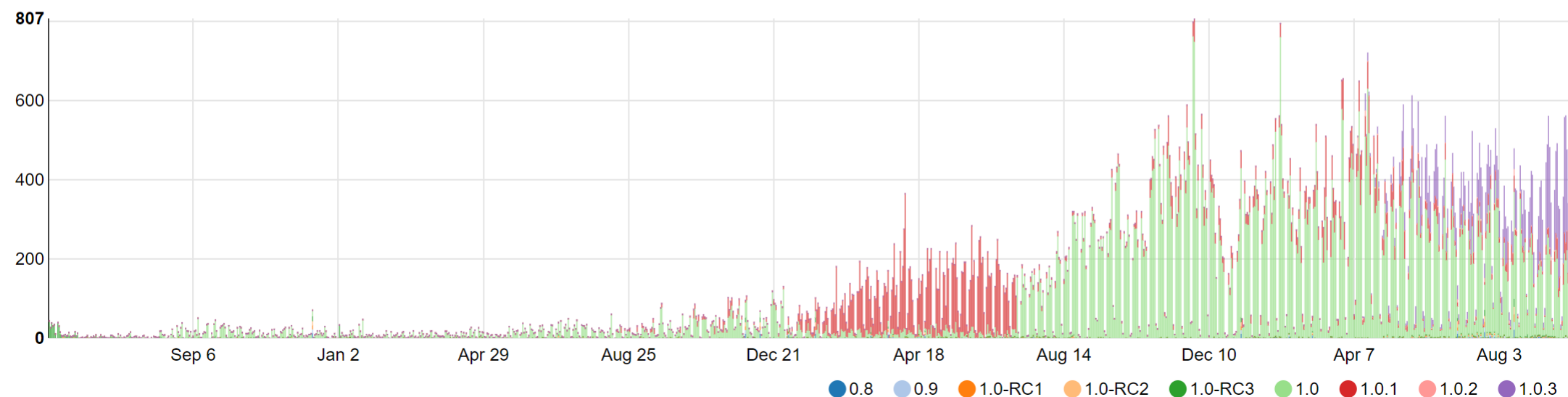
- > Nevertheless there has been a massive growth in downloads from public repositories like Bintray.
- > Over 100,000 downloads of money-api in the past year alone

Date Range: 2 Hrs | 24 Hrs | 7 Days | 30 Days | 1 Year | [Wed May 13 2015 - Sat Oct 13 2018](#)



## javax.money:money-api downloads

Total downloads: 154,999





# Users

- > Hibernate Validator 6 (BV 2 RI)
- > Spring Data
- > Zalando Jackson Bindings
- > Jadira Bindings
- > Several other projects or commercial products



# ML Candidates

- > After Victor had already won the same award in 2012, Anatole Tresch won the JCP Award for Outstanding Spec Lead again in 2015. After Anatole was already named Star Spec Lead 2014. Anatole would like to represent Trivadis AG as a Maintenance Lead
- > Werner Keil is a respected speaker at numerous conferences and JCP EC Member since 2008. Werner spoke about JSR 354 on almost every continent (America, Africa, Europe or Asia). Werner won a JCP Award as Member of the Year in 2016 and a Speaker of All Times award at Java2Days 2017.
- > Otavio spoke at numerous conferences like JavaOne US, DevoXX UK and US or JavaOne Brazil about JSR 363. He won several JCP Awards in almost every category and he's also a Java Champion and Oracle Developer Champion.

We recommend 3 Maintenance Leads based on their contribution and adoption of JSR 354 and to spread the responsibility, avoiding a bottleneck and still stand should one or the other be on vacation or bound by work for customers.



# Example Cases

Two comparable examples for Maintenance or Spec Lead Transfer in recent years:

- > JSR 329 – Portlet 2.0 Bridge for JavaServer™ Faces 1.2 Specification had a transfer of the Maintenance Lead role from Oracle to Liferay in 2015.
- > JSR 371 – MVC 1.0 was transferred from Oracle to Ivar Grimstad, who later shared the Spec Lead role with Christian Kaltepoth at ingenit GmbH & Co. KG.

# Links

- JSR 354: <https://jcp.org/en/jsr/detail?id=354>
- JavaMoney Site: <http://javamoney.org>
- JavaMoney Shelter: <http://javamoney.github.io/shelter.html>
- GitHub Organization: <https://github.com/JavaMoney/>
- Twitter: @jsr354



JSR-354



Money & Currency

Contributing

Adopt-A-JSR