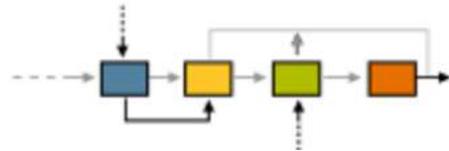




Java
Community
Process



Community Development of Java Technology Specifications

JSR 363 Implementation and Adoption

May 9, 2017

Werner Keil, Leonardo Lima

About this JSR



- A framework supporting robust representation and correct handling of quantities.
 - For example, it may be unclear whether a person's mass is expressed in pounds, kilograms, or stones.
- JSR 363 established safe and useful methods for modelling physical quantities.
- Interfaces and abstract classes supporting unit operations including
 - Checking of unit compatibility
 - Expression of measurement in various units
 - Arithmetic operations on units
- Concrete classes implementing standard unit types (base, derived) and unit conversion.

History



- List the significant dates in the history of JSR 363.
 - Submitted: March 11, 2014
 - Creation approved: April 7, 2014
 - EDR finished: January 27, 2015
 - Public Review: November 18, 2015 thru January 11, 2016
 - Proposed Final Draft: July 19, 2016
 - Final Release: September 13, 2016

Publicity



- DevoXX UK 2015
- DevoXX BE 2015
- DevoXX US 2017



Publicity (2)



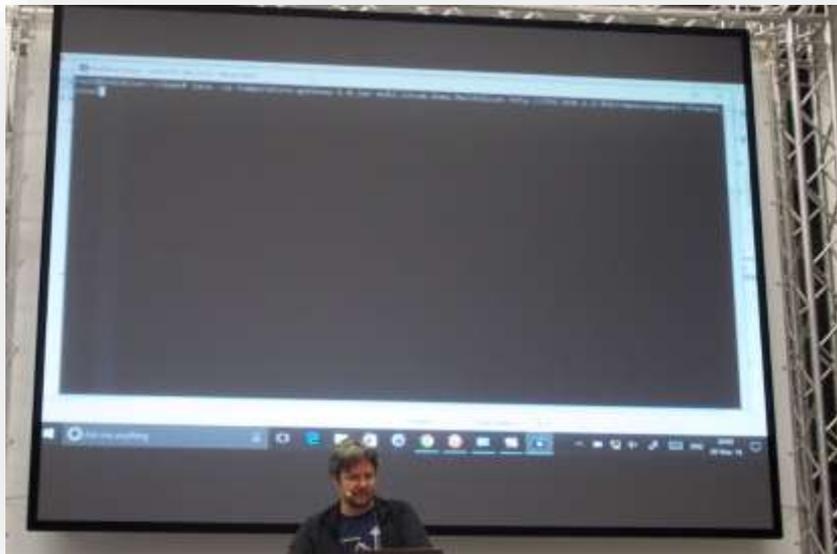
- JavaOne LA 2015
- JavaOne US 2016



Publicity (3)



- Eclipse Science Unconference at EclipseCon Europe 2016
- Eclipse DemoCamp Darmstadt 2016



Implementation



- Several implementations (apart from the RI) exist:
 - Java SE 8 port:
<https://github.com/unitsofmeasurement/uom-se>
 - Lightweight implementation using Enums:
<https://github.com/unitsofmeasurement/uom-impl-enum>
 - Eclipse UOMo: <http://www.eclipse.org/uomo/>
(CQ for JSR 363 cleared in March 2017)
 - Apache SIS
 - JScience 5: <http://www.jscience.org/> (planned)
 - Commercial implementations

Adoption



- We are participating in the Adopt-a-JSR program
- 4 JUGs / their members have joined the EG:
 - Morocco JUG
 - SouJava
 - JUG Chennai
 - JUG Hyderabad
- Especially SouJava / Otavio helped a lot with active contributions to API, RI or the Java SE 8 port.
- PCP/Parfait Lead Nathan Scott is a Contributor on behalf of Red Hat
- Further contributors to extension modules

Development



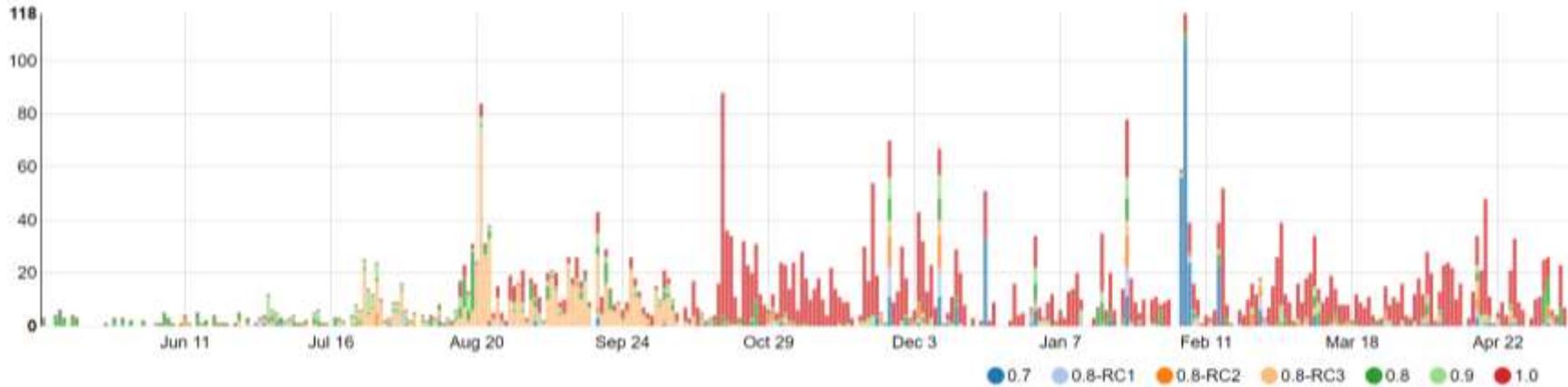
- We develop the JSR collaboratively through <http://unitsofmeasurement.github.io>
 - Committers: 4 EG Members (desruisseaux, keilw, leomrlima, otaviojava)
 - 29 GitHub users contribute to wider project (SE port, demos, JSON-, QS integration, etc.)
- The RI is available for public download on <https://github.com/unitsofmeasurement/unit-ri> and on public repositories like JCenter or MavenCentral
- The TCK is available for public download on <https://github.com/unitsofmeasurement/unit-tck>
- The source-code repository is at <https://github.com/unitsofmeasurement>

Download Stats



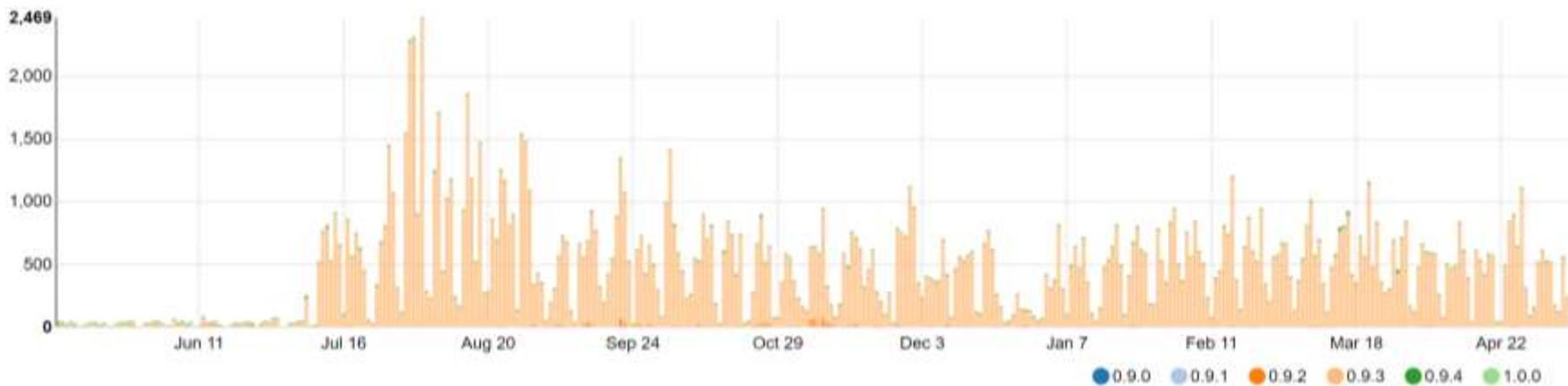
javax.measure:unit-api downloads

Total downloads: 4,267



javax.measure:jsr-275 downloads

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Java.net Migration

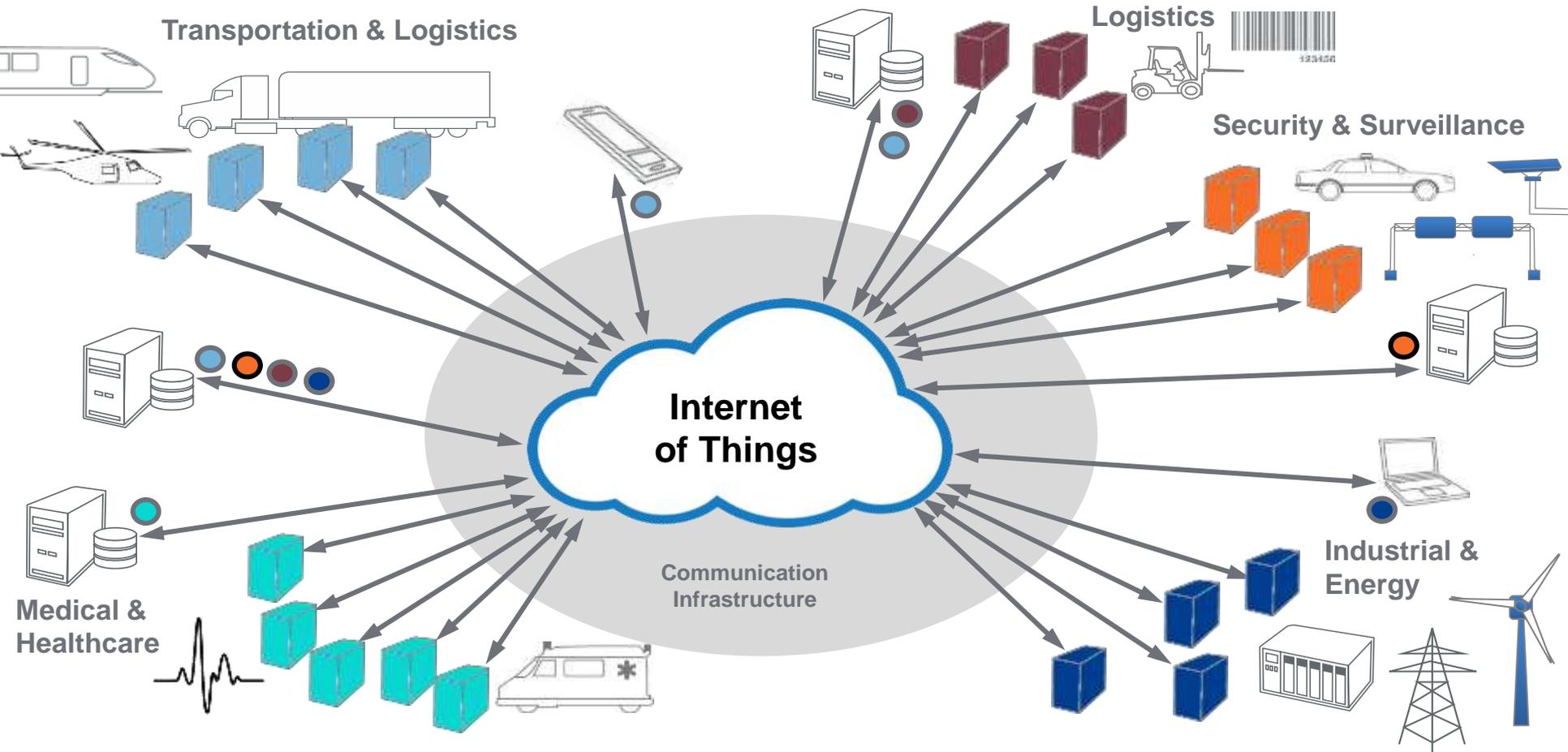


- Public mailing list(s) and/or forum(s)
 - Units-Dev on Google Groups:
<https://groups.google.com/forum/#!forum/units-dev>
 - Units-Users on Google Groups:
<https://groups.google.com/forum/#!forum/units-users>
- We archived java.net JIRA, Experts list and similar artifacts. Collaboration happens via Google Groups, GitHub, Twitter or Stack Overflow in some cases.
- Our document archive with meeting minutes and other materials was moved from java.net to
<https://bintray.com/unitsofmeasurement/downloads>

Use Cases



• Use Cases for JSR 363



Users

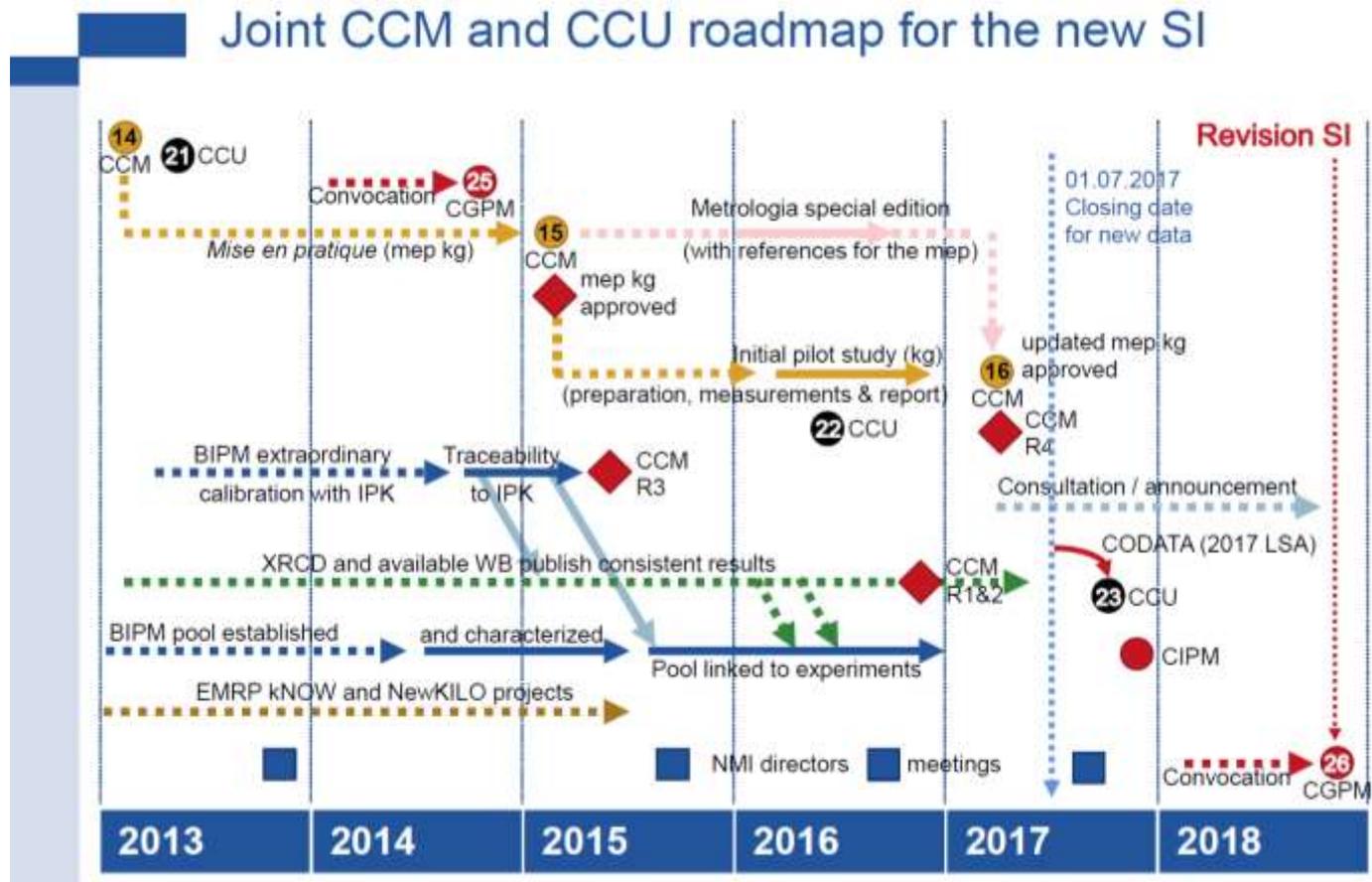


- PCP Parfait
- GeoAPI and projects using it
 - Apache SIS
 - Eclipse LocationTech
 - ...
- Eclipse SmartHome / OpenHAB
- Eclipse Science
- Hibernate Validator 6 (BV 2 RI)
- Apache Tamaya
- Opower (Oracle)
- Several other commercial users

Roadmap



- The SI Standard will be revised in June 2018
 - If there is high impact or other requests by the community it could be a good occasion for a MR or new JSR

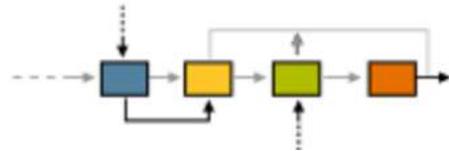




Questions, discussion, next steps



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Thank you!

<http://jcp.org/en/jsr/detail?id=363>