

ALEXIOS ZAVRAS

**MAKING OPEN SOURCE
EASILY USABLE**

ABOUT ME

- ▶ Greek; living in Munich, Germany
- ▶ PhD Computer Science
- ▶ Intel's Senior Open Source Compliance Engineer
- ▶ Free and Open Source Software since 1983
 - ▶ long-term view
 - ▶ member of communities

COPYRIGHT BASICS

- ▶ Protects expression of idea
- ▶ Automatically granted
- ▶ Derivative work
- ▶ Holder sets terms for licensing;
also for derivative works
- ▶ You need a license!

LICENSES SPECIFY RULES

- ▶ Rights

- ▶ What you *may* do

- ▶ e.g., copy the code, modify it, re-distribute it

- ▶ Obligations

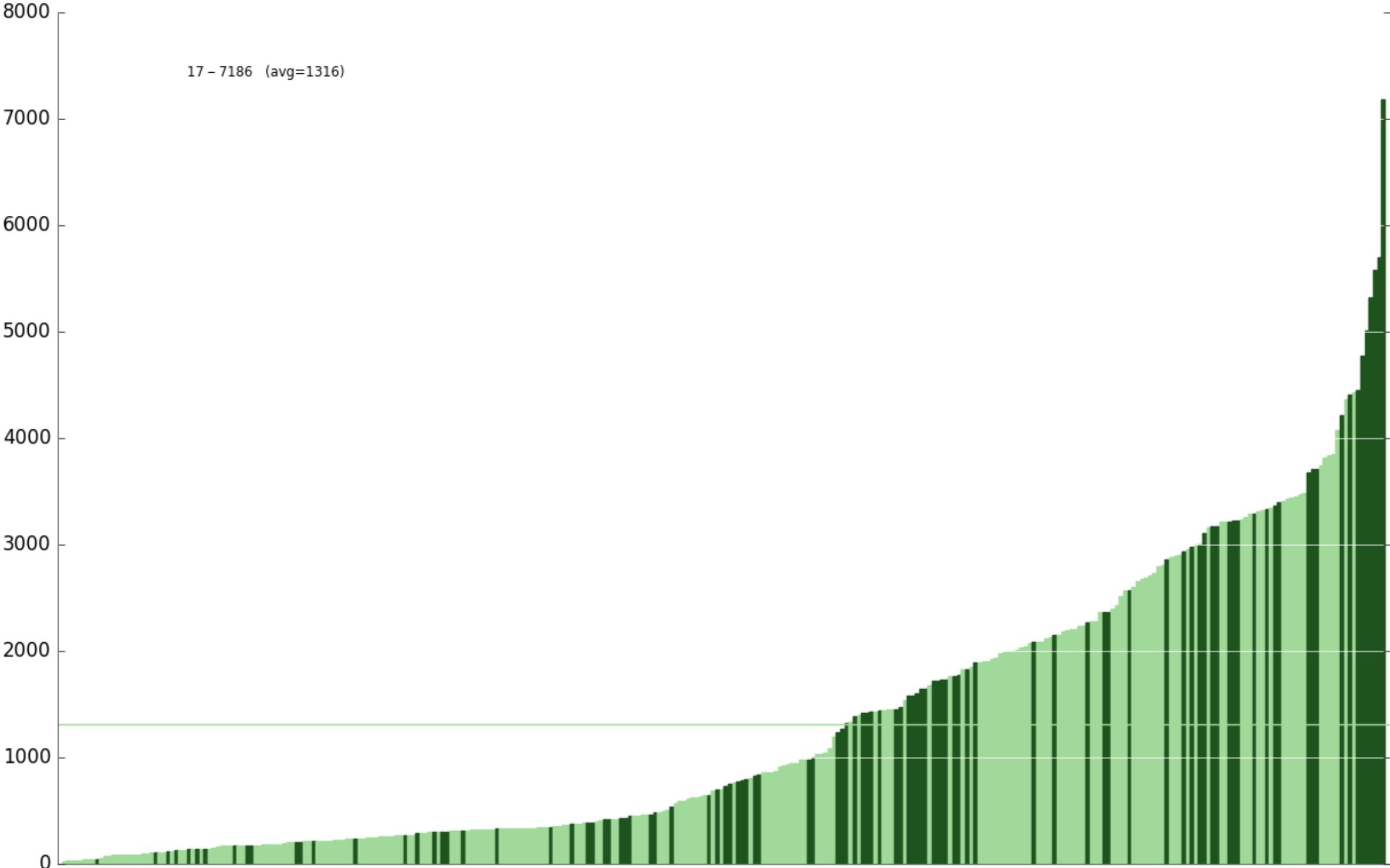
- ▶ What you *must* do

- ▶ e.g., use the same license, mention author's name

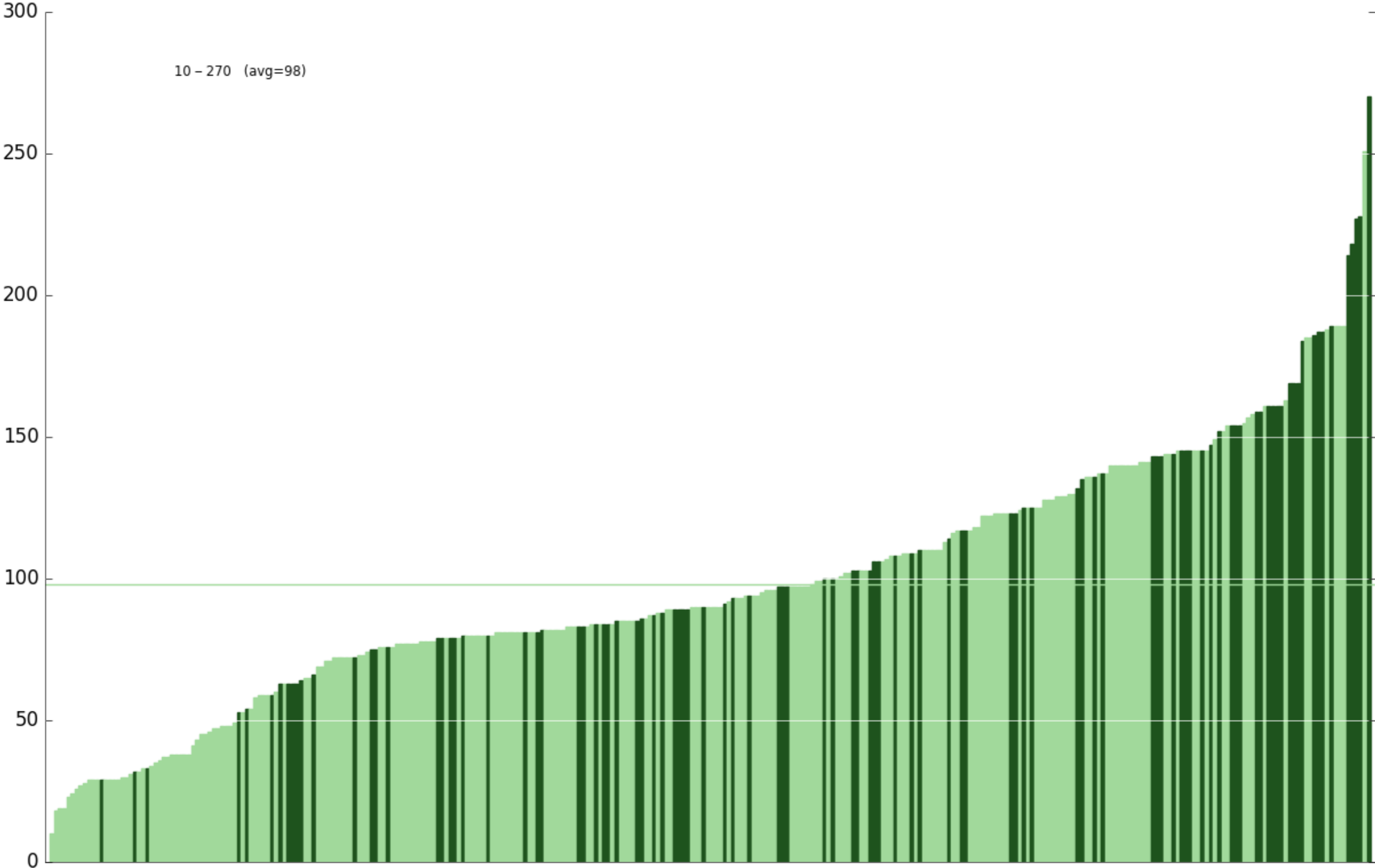
NOT EASY READING

- ▶ Legal texts
- ▶ Difficult domain
- ▶ Variety of author qualifications
- ▶ Fortunately, small set of well-known ones

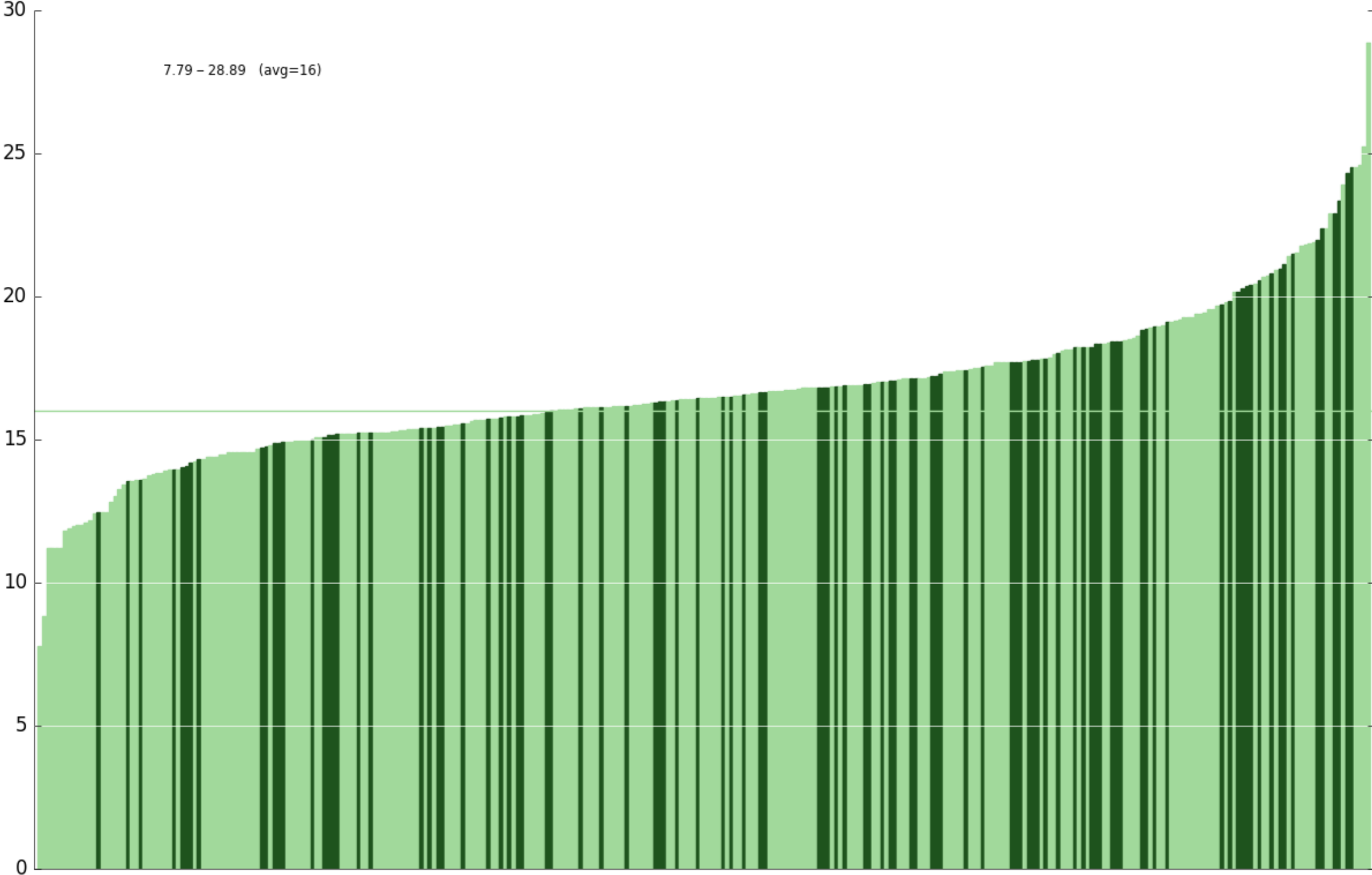
SIZE IN WORDS



LONGEST SENTENCE IN WORDS



READABILITY: SMOG (SCHOOL GRADE)



LEGAL COMPLIANCE

- ▶ Software nowadays is a combination of components
 - ▶ Own code, Open Source components, plus maybe proprietary components
- ▶ You should comply with *all* obligations of *all* licenses
 - ▶ Straightforward
 - ▶ Not trivial or easy

DETECTIVE WORK

CSI: Licenses

SOFTWARE PACKAGE DATA EXCHANGE

- ▶ Open standard for communicating components, licenses and copyrights
 - ▶ Specification
 - ▶ License list
- ▶ Vision: Help reduce redundant work in determining software license information and facilitate compliance



WHY USE SPDX?

- ▶ Producers: Open Source Developers
 - ▶ Help users comply with your licenses
- ▶ Consumers: Users
 - ▶ Understand licensing of the components used
- ▶ Chains: Embedded and Supply Chains
 - ▶ Save time and money and achieve better compliance

DESCRIBE COMPLIANCE WITH SPDX

- ▶ Use SPDX License List short identifiers to unambiguously refer to licenses
- ▶ Tag source code files with SPDX License List short identifiers
- ▶ Provide an SPDX document collecting the information for any software delivered

LICENSE LIST

- ▶ Authoritative list of common Open Source licenses
 - ▶ Currently approximately 390 licenses and 35 exceptions
- ▶ For each: name, short identifier, canonical license text, URL, is OSI approved, is FSF libre, standard header text
- ▶ Matching guidelines to determine if text matches
 - ▶ Canonical text is templated

LICENSE LIST SHORT IDENTIFIERS

- ▶ Authoritative list of names and short identifiers
 - ▶ MIT, BSD-3-Clause, GPL-2.0-or-later

- ▶ License expressions
 - ▶ EPL-2.0 OR MPL-2.0

USE IN SOURCE FILES

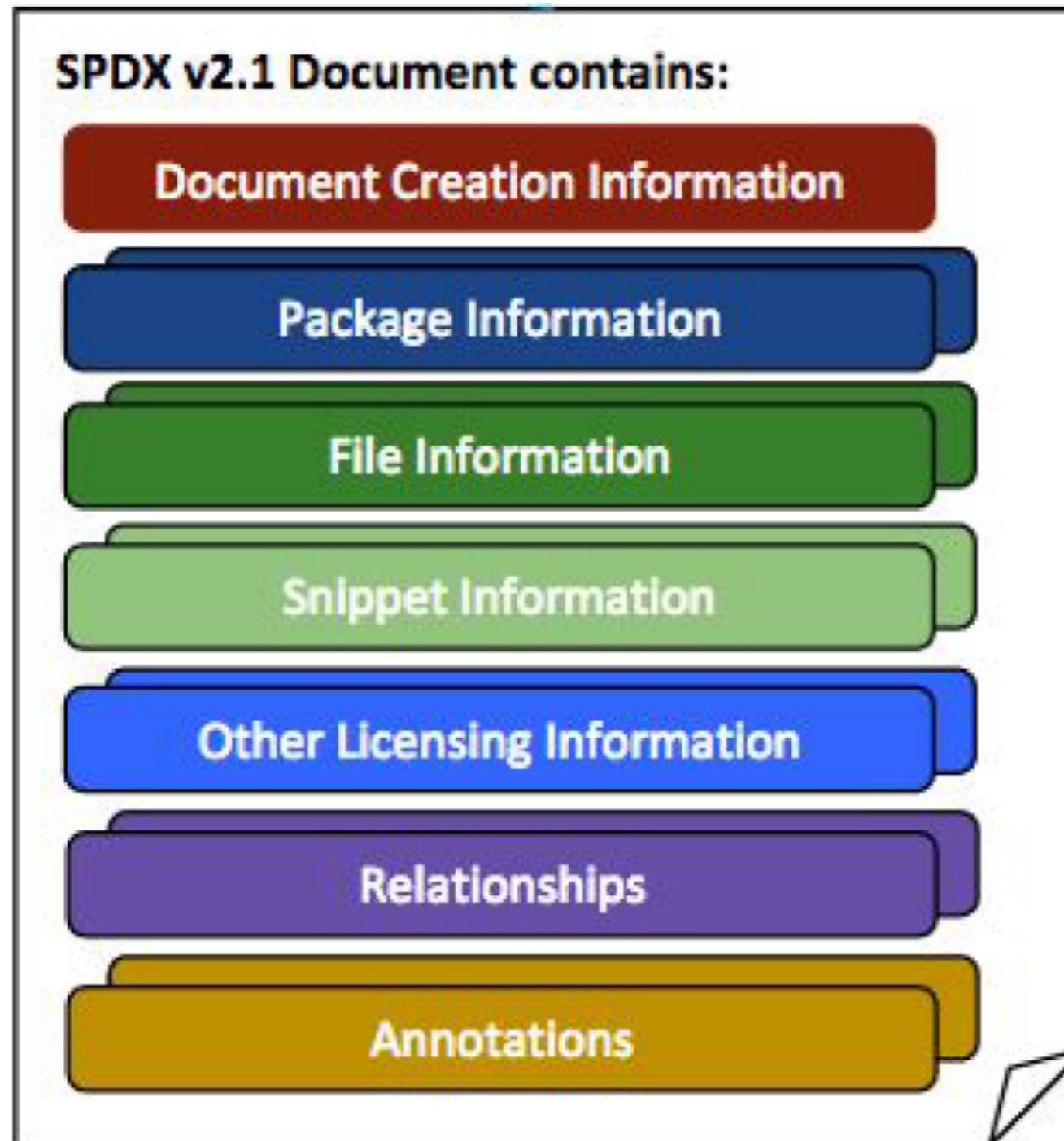
SPDX-License-Identifier: Apache-2.0

- ▶ Easy to use, machine-readable
 - ▶ Just adds one comment line
 - ▶ Makes it easy to know the license of the file
 - ▶ Satisfies the DCO requirement for license per file
- ▶ Concise standard format

SPDX DOCUMENTS

- ▶ Descriptive
 - ▶ Detailed Bill of Materials (aka manifest) of all software contents
- ▶ Flexible
 - ▶ Various formats for automatic processing (XML, ...), manual editing (Tag-Value), or non-tech (spreadsheet)
- ▶ Accurate
 - ▶ Focus on capturing facts; allow interpretations

SPDX DOCUMENT STRUCTURE (FULL)



TOOLS

- ▶ Many tools available
 - ▶ Open Source and proprietary
- ▶ Functionalities: create, convert, verify, compare, view, ...

QUESTIONS?

Thank you!