THE (NOT SO) SIMPLE CASE OF ATTRIBUTION LICENSE OBLIGATIONS

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Open Source Compliance
Intel Corp.

Software Licenses

FOSS licenses stipulate

- What you *may* do (permissions)
  - e.g., copy the code, modify it, re-distribute it
- What you *must* do (obligations)
  - e.g., use the same license, mention author's name

Attribution Obligation

You have to mention the copyright holder and reproduce the license.

Sometimes only in source; others even if you don't distribute the source

- "Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution."
  – BSD-3-Clause (and others)

Attribution Obligation First Look

You have to mention the copyright holder and reproduce the license text.

Seems clear and easy enough.

Generally considered the most easily satisfiable requirement.

Fulfilling Attribution Obligation

You have to reproduce

- the copyright notice;

- the list of conditions; and

- the disclaimer

in the documentation and/or other materials provided with the distribution.

Fulfilling Attribution Obligation, per file

"Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution."

```
/*
 * Copyright (c) 1999, 2000, 2001, 2002 Markus Friedl.  All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 *    notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 *    notice, this list of conditions and the following disclaimer in the
 *    documentation and/or other materials provided with the distribution.
 *
 * THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS'' AND ANY EXPRESS OR
 * IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.
 * IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
 * INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
 * DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
 * THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
 * THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
 */

#
```

However…

Typical software packages have tens, hundreds, or thousands of files

Even if a single license is used for all files, what has to be reproduced:

- List of conditions is the same

- So is the disclaimer

- But copyright holders often differ

Typical example

OpenSSH-7.3p1

- 249 source files

- 293 copyright notice lines

- 93 different copyright notice lines

Different Copyright Notices (1)

Different copyright holders

- 35 different copyright holders

```
* Copyright (c) 2003 Markus Friedl.  All rights reserved.
* Copyright (c) 2003 Jakob Schlyter. All rights reserved.
* Copyright (c) 2003 Markus Friedl.  All rights reserved.
* Copyright (c) 2003 Nils Nordman.  All rights reserved.
* Copyright (c) 2003 Wesley Griffin. All rights reserved.
```

Different Copyright Notices (2)

Differences can be subtler than copyright holders

- 23 different copyright notices for Markus Friedl

```
* Copyright (c) 1999, 2000 Markus Friedl.  All rights reserved.
* Copyright (c) 1999, 2000, 2001 Markus Friedl.  All rights reserved.
* Copyright (c) 1999, 2000, 2001, 2002 Markus Friedl.  All rights reserved.

* Copyright (c) 2012 Markus Friedl.  All rights reserved.
* Copyright (c) 2013 Markus Friedl <markus@openbsd.org>
* Copyright (c) 2014 Markus Friedl.  All rights reserved.
```

Fulfilling Attribution Obligation

You have to reproduce

- the copyright notice;

- the list of conditions; and

- the disclaimer

for *each of the files* in the software package.

Software Package Data Exchange® (SPDX®)

Standard format for communicating the components, licenses, and copyrights associated with software packages.

Specific fields for info on each file:

- FileCopyrightText

- LicenseInfoInFile

- LicenseConcluded

Tricky Copyright Notices

Differences can be even subtler than copyright holders or years

- Are all these notices different? Must the complete line be reproduced?

```
 * Copyright ____  Damien Miller
 * Copyright (c) ____  Damien Miller
 * Copyright (c) ____  Damien Miller.
 * Copyright (c) ____  Damien Miller.  All rights reserved.
 * Copyright (c) ____  Damien Miller <djm@mindrot.org>
 * Copyright (c) ____  Damien Miller <djm@openbsd.org>
 * Copyright (c) ____  Tatu Ylonen <ylo@cs.hut.fi>, Espoo, Finland
```

- "Redistributions […] must reproduce *the above copyright notice* […]"

Trickier Cases

```
#
#   Copyright (C) 2004 Free Software Foundation, Inc.
#   Written by Scott James Remnant, 2004
#
# This file is free software; the Free Software Foundation gives
# unlimited permission to copy and/or distribute it, with or without
# modifications, as long as this notice is preserved.

#
```

Simplest Compliance Policy

All the issues are automagically resolved, if you simply...

deliver source code!

Conclusions

- Attribution obligation is considered easily satisfiable

- There are tricky cases

- Caution when trying simplistic approaches

- SPDX is the standard format for communicating this info

- Simple policy to satisfy the obligation: always deliver source

THANK YOU

Questions, comments, … ?