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STAMP v3.3 Licenses

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Record of Changes

ECO	Description	Rev	Date
	Initial document.	1	18-mar-2014
	Updated for STAMP v3.1. The license for SHA1 was added.	2	30-jun-2015
	Updated for STAMP v3.2.	3	4-apr-2017
	Updated for STAMP v3.3. Added section 2.1.	4	25-mar-2019



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1 Introduction

1.1 Purpose

This documents the various licenses of 3rd-party software used by STAMP. The presence of this document is a requirement made by some of the licenses.

1.2 About STAMP

STAMP is the System for Thermal Analysis, Measurement, and Power supply control. Its purpose is to provide data handling facilities to support thermal tests. The main functions of STAMP are:

Data acquisition

STAMP can acquire data from numerous sources, such as scanners, PLCs, and other software systems. Data acquisition is described in [SUM007].

Data presentation

Acquired data can be presented in many different ways, such as in tables, graphs, as a full-blown virtual reality simulation, or by transferring it to 3rd party software. Both presentation of real-time and off-line data is supported. Data presentation is described in [SUM006] and [SUM009].

Data manipulation

Before data is presented, it can be manipulated using a powerful formula system that allows both transformation of acquired values and generation of synthetic sensors. Data manipulation is described in [SUM006].

Power supply control

STAMP can control any number of power supplies. Power supplies can be controlled in a number of modes, such as fixed mode, thermostatic switching mode, profile mode, and others. Power supply control is discussed in [SUM008].

Although there are other software systems that can perform data acquisition, STAMP is unique because of its scale. Rather than being limited to a single PC for both acquisition and presentation, STAMP was designed from day one as a client-server system running on a network of computers. This design allows STAMP to spread the load over as many computers as is necessary to perform a specific task, and provides a measure of redundancy as well. Because STAMP supports many data presentation tasks at the same time, it can support numerous users at any time, each looking at a unique view of the acquired data.

STAMP has been used for testing spacecraft since august 2000.

STAMP is written in C++17, and consists (in version 3.3) of approximately 306,000 lines of code, spread over several libraries and dozens of programs. It runs on cheap off the shelf hardware, and has considerable room for further expansion.

1.3 References

1.3.1 Reference documents

[STAMP-TER-SUM-003] *Developer Manual*. SUM003.

[STAMP-TER-SUM-006] *Common Presentation Client*. SUM006.

[STAMP-TER-SUM-007] *Acquisition Manual*. SUM007.

[STAMP-TER-SUM-008] *Power Supply Manual*. SUM008.

[STAMP-TER-SUM-009] *Presentation Manual*. SUM009.

1.4 Glossary

STAMP (System for Thermal Analysis, Measurement, and Power supply control)

The system described in this manual.

2 Licenses

The following table lists all external software products used by STAMP, and their licenses.

Table 2-1 External products

Product	License
AngelCode Scripting Library	See section 2.1
assimp	See section 2.2
BusTools I/O-library	Commercial
Cairo	Cairo is dual licensed, allowing either of the following licenses to be used: <ul style="list-style-type: none">• LGPL 2.1 (https://www.gnu.org/licenses/old-licenses/lgpl-2.1.html)• Mozilla Public License 1.1 http://www.mozilla.org/MPL/1.1/
CURL	See section 2.3
Intespace Dynaworks I/O-library	Commercial
GLEW	See section 2.4
GLib	LGPL (https://www.gnu.org/licenses/lgpl.html)
National Instruments VISA I/O-library	Commercial
OpenSSL	See section 2.5
Pango	LGPL (https://www.gnu.org/licenses/lgpl.html)
SBS MIL1553 I/O-library	Commercial
SHA1	See section 2.6
SQLite	See section 2.7
Technosoftware OPC I/O-library	Commercial
ZLib	See section 2.8

2.1 AngelCode Scripting Library license

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2.4 GLEW license

The OpenGL Extension Wrangler Library

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This product includes cryptographic software written by Eric Young (<mailto:eay@cryptsoft.com>). This product includes software written by Tim Hudson (<mailto:tjh@cryptsoft.com>).

2.5.3 Original SSLeay License

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2.6.2 base64 license

base64.cpp and base64.h

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2.8 ZLib license

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