

About TUIO

- is it reliable?
 - At least, it is open source -> At least we can do any implement by ourselves.
 - This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details -> It means we may not be able to get support from the develop team if we found some bugs.
 - TUIO has been developed since 2003¹, and a lot of implementations are already achieved. But there are only three commercial softwares which use TUIO. -> I doubt that it's due to some pivotal problem.
 - The documents provided by TUIO group explain how to use the library in detail. According to the explanation, this library is easy to use. However, there is no information concerning bug report, update or release note -> It mean that we may have to make lots of try-and-error in order to make new implementation.
 - Not a lot of information can be found from Google -> Not easy to find support
 - Conclusion : I don't find that it is so reliable
- does it have dependencies or requirements? which ones ? if yes, could it be a problem?
 - TUIO needs :
 - [oscpack](#) OpenSound Control library, (support Windows, Linux and Mac OS X), with MIT open source license
 - [SDL](#) graphics library, (support Windows, Mac OS X, Linux, iOS, and Android), with zlib license

Both libraries can be used in commercial software without problem, if I understand well.
- how do we build it?

This package includes project files for Visual Studio .NET and XCode as well as a simple Linux Makefile for building the example applications.
- is it well coded ? what do you think?

I would say that the format of coding is quite well, the commentaries are clear and easy to find where to modify.
- is it scalable, configurable, tweakable?

TUIO is available for the most common programming languages (C++, C#, JAVA, Python). So it should not be a problem to implement it in the device (smartphone or tablet computer) with multi-touch display, and with different operating system (Windows, MacOSX, Linux, Android)
- what are its strengths and weaknesses?
 - Strengths : it is well-code, tiny and well-documented. It is easy to use

¹ Wright, M., Freed, A., Momeni A.: "OpenSound Control: State of the Art 2003". Proceedings of the 3rd Conference on New Instruments for Musical Expression (NIME 03), Montreal, Canada, 2003.

- Weakness : We may not be able to realize some serious potential problems since it doesn't have so many users and there is no bug report.
- what about the threading model, is it scalable?
Actually I don't understand this question very well, there are two possible things which may be related:
 - thread : TUIO uses POSIX (for Unix, Linux, Mac OS X) or WIN32 (for Windows) thread.
 - thread safe : I doubt that TUIO is not thread-safe, although there are not too much information².
- is it worth it at the end?
I would NOT choose it as a necessary library for a "commercial software" (even I think that it is well-coded) because :
 - Less community support : according to the log on github (for tuio2) : 37 commits and 1 branch, so I doubt if there are enough people who can support the maintenance of library. And I don't find lots of discussion about tuio on stackoverflow either. In such a situation, we might have to spend lots of time on try-and-error or bug fixing...
 - "This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY". So where can we get support? Since Eiosis is a small team, it's better NOT to waste time or manpower on try-and-error which may already be repeated by other teams...
 - Personally I would want to use it if I didn't need to take responsibility to the clients who use the software I developed. But here what we are talking about is commercial software...

² <http://forum.openframeworks.cc/t/tuio-causing-opengl-error/5447>