

There are several issues that would in my opinion improve useability of TPTP for other purposes than the problem library, namely:

More clear definition of the format

There are many features in TPTP not used this time, and their meaning is often not quite clear from the BNF syntax. This makes it complicated to write parsers for TPTP and convertors into other formats. I think, it would help to check, whether the different features are really needed, and if so, then identify them into some extension blocks. This would allow to write parsers, which would be able to clearly state, which parts of the format they support.

Predicate, function and variable symbols

The symbol names and variable names in TPTP are distinguished by the first letter (upper/lower-case). Although this is a common thing in many formats/languages, it creates difficulties when converting from other formats that don't follow this convention. I would suggest some possibility how to enter symbols and variables with either case, perhaps using a sort of quoted syntax.

XML for TPTP

Today, XML is a well formed standard, and almost every possible language already has a parser for XML. Also, many platform-independent tools are available, especially I found XML stylesheets to be very useful (although not very user friendly, to tell the truth). Creating XML format for TPTP would improve a lot its possibilities and use. I've already tried to create such format (XFF), however, now it doesn't follow the TPTP structure so closely, I've tried to make it a bit simpler. But perhaps it can be used as a kind of starting point. The problem with XML is that typing it is much less user-friendly. The solution could be to write tools, such as some native editor, viewer, convertor into MathML, etc. that would simplify XML-TPTP typing and viewing.

Tools

The tools (tptp2X etc.) coming with TPTP are bound to the entire package. It would be useful to have the tools available even without the complete library. For example, TPTP format could be used for a completely different project. In such case, it would be necessary to have a separate tool package with clearly stated requirements.

Referencing other documents

The TPTP has a simple mechanism for including axiom sets in the files. However, it is not enough for projects which would have different file structure, or which would use formula (axiom) sets from different sources, internet etc. Mechanism such as (and simpler than) XML XPath or XLink would be handy.