

important external libraries had been deprecated and needed to be replaced. Other areas of work include finding fonts and syncing `xdvipdfmx` with `dvipdfmx`, as well as handling general bug reports. A report on the completed work was given in *TUGboat* 34:2.

### Dynamic library support in LuaTeX

Applicant: Luigi Scarso, Italy,

<http://www.luatex.org/swiglib.html>

Amount: US\$2000; acceptance date: 31 May 2013.

Support shared libraries in LuaTeX using SWIG (<http://www.swig.org>). Some libraries are already supported, e.g., `mysql` and `graphicsmagick`.

### Metaflop: METAFONT via the web

Applicant: Marco Müller, Switzerland,

<http://www.metaflop.com>.

Amount: US\$1000; acceptance date: 20 Jun 2013 (completed 10 Aug 2014).

Enhance the Metaflop web application, which provides a graphical interface for adjusting Metafont parameters, with improvements to the underlying fonts, the preview mechanism, and the generation.

### TeX Live for Android

Applicant: Clerk Ma, China,

<http://code.google.com/p/texlive-for-android>.

Amount: US\$2000; acceptance date: 26 Jun 2013.

Add a native editor and package manager GUI to the TeX Live for Android project. <http://tug.org/tug2013/abstracts/ma.txt> has more background.

### Project Fandol: Free Chinese fonts and Russian-style math fonts

Applicants: Clerk Ma and Jie Su, China,

<http://code.google.com/p/fandol-font>.

Amount: US\$1000; acceptance date: 9 Aug 2013.

(Information below is from the applicants.) Most math books in China are produced by Founder Bookmaker. This system has used a set of Russian style math fonts for more than 30 years. These commercial fonts are designed with a unique encoding by Founder. And, these fonts cannot work in TeX or other programs.

We have a set of metal types which contain two Russian style fonts (serif and sans serif). By analyzing these metal types, we find Founder's fonts are derived from these fonts, and Founder only provided a serif version (we will provide these math fonts in both serif and sans serif). These metal types were imported from the U.S.S.R. in 1953.

We will trace the metal fonts to outlines (initially in EPS format). For more detailed adjusting, we will be using FontForge. Parts of our Chinese fonts are already processed in this workflow. For these Russian style fonts, we will also work in this way.

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<http://tug.org/tc/devfund>

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## TeX Development Fund 2013–2014 report

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### MetaPost 2: Numerical engines

Applicant: Taco Hoekwater, The Netherlands,

<http://tug.org/metapost>.

Amount: US\$2000; acceptance date: 2 Dec 2009 (completed 24 May 2011).

Implement better numerical handling in MetaPost, among other enhancements. An article about the initial MetaPost 2 project goals, by Hans Hagen and Taco Hoekwater, was published in *TUGboat* 30:3. MetaPost 1.802, included in TeX Live 2013, has support for several numeric representations, for example via the `-numbersystem` option.

### Lineno and related updates

Applicant: Uwe Lueck, Germany,

<http://www.ctan.org/pkg/lineno>.

Amount: US\$1000; acceptance date: 17 Sep 2011.

For updates to the complex `lineno` package, and related efforts, such as factoring out functionality into separate packages.

### X<sub>q</sub>TeX math and other updates

Applicant: Khaled Hosny, Egypt,

<http://www.ctan.org/pkg/xetex>.

Amount: US\$4000; acceptance date: 24 Apr 2012 (completed 25 Jul 2013).

For updates to the X<sub>q</sub>TeX engine, especially relating to OpenType math typesetting, and including updates as needed to LuaTeX to keep the engines in sync. Several