

# A Quick Look at L<sup>A</sup>T<sub>E</sub>X

Andrew Roberts

December 7, 2015

## 1 Introduction

L<sup>A</sup>T<sub>E</sub>X is a typesetting system developed by Leslie Lamport (Lamport, 1994). It builds on foundations created by Donald Knuth's T<sub>E</sub>X system (Knuth, 1979). T<sub>E</sub>X became very popular within the scientific community because it was very good at producing mathematical manuscripts. It was extremely powerful and provided the user with exceptional control of the presentation of their documents. In the 80s, Lamport began developing L<sup>A</sup>T<sub>E</sub>X, which was designed to add a layer of abstraction on top of T<sub>E</sub>X which allows the user to focus more on the document structure, rather than getting too bogged down with presentation issues. L<sup>A</sup>T<sub>E</sub>X also added extra functionality through auxiliary programs that can generate bibliographies, tables of contents, indices, tables, cross-references and figures.

## 2 How to learn more

Here are some well established resources to help you learn more about this excellent system.

- General L<sup>A</sup>T<sub>E</sub>X resources - the excellent L<sup>A</sup>T<sub>E</sub>X Companion (Goossens et al., 1993) is a broad, yet in depth look at the most important aspects.
- Graphics - take a look at Rahtz's survey (Rahtz, 1989) of graphics techniques in T<sub>E</sub>X.
- Bibliographies - the best place to start would be the B<sub>I</sub>B<sub>T</sub><sub>E</sub>X documentation by Patashnik (1988).
- Extras - The CTAN archives (Greenwade, 1993) contain a vast number of supplementary features, such as packages, macros, styles, etc., that can extend the potential of L<sup>A</sup>T<sub>E</sub>X even further.

## References

Michel Goossens, Frank Mittlebach, and Alexander Samarin. *The Latex Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

- George D. Greenwade. The Comprehensive Tex Archive Network (CTAN). *TUGBoat*, 14(3):342–351, 1993.
- Donald E. Knuth. *Tex and Metafont, New Directions in Typesetting*. American Mathematical Society and Digital Press, Stanford, 1979.
- Leslie Lamport. *Latex: A Document Preparation System*. Addison-Wesley, Reading, Massachusetts, second edition, 1994.
- Oren Patashnik. BibTeXing. documentation for general BibTeX users. Electronic document accompanying BibTeX distribution, 1988.
- Sebastian Rahtz. A survey of Tex and graphics. Technical Report CSTR 89-7, Department of Electronics and Computer Science, University of Southampton, UK, 1989.