LaTeX: An Introduction

LaTeX은 강력한 조판 툴이지만 상대적으로 잘 알려져 있지 않다.
LaTeX이 무엇이며 무엇을 할 수 있는가를 소개한다.

LaTeX is a document markup language and document preparation system for the TeX typesetting program. Within the typesetting system, its name is styled as LaTeX.

LaTeX is most widely used by mathematicians, scientists, engineers, philosophers, linguists, economists and other scholars in academia[1][2]. As a primary or intermediate format (e.g. translating DocBook and other XML-based formats to PDF), LaTeX is used because of the high quality of typesetting achievable by TeX. The typesetting system offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout and bibliographies. LaTeX is intended to provide a high-level language that accesses the power of TeX. LaTeX essentially comprises a collection of TeX macros and a program to process LaTeX documents. Because the TeX formatting commands are very low-level, it is usually much simpler for end-users to use LaTeX.

```
\documentclass{article}
\begin{document}
Hello, World!
\end{document}
```

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LaTeX was originally written in the early 1980s by Leslie Lamport at SRI International.[3] It has become the dominant method for using TeX—relatively few people write in plain TeX anymore. The current version is LaTeX2e (styled).

The term LaTeX refers only to the language in which documents are written, not to the editor used to write those documents. In order to create a document in LaTeX, a .tex file must be created using some form of text editor. While most text editors can be used to create a LaTeX document, a number of editors have been created specifically for working with LaTeX.

Distributed under the terms of the LaTeX Project Public License (LPPL), LaTeX is free software.

LaTeX is based on the idea that authors should be able to focus on the content of what they are writing without being distracted by its visual presentation. In preparing a LaTeX document, the author specifies the logical structure using familiar concepts such as chapter, section, table, figure, etc., and lets the LaTeX system worry about the presentation of these structures. It therefore encourages the separation of layout from content while still allowing manual typesetting adjustments where needed. This is similar to the mechanism by which many word processors allow styles to be defined globally for an entire document or the use of Cascading Style Sheets to style HTML.

LaTeX can be arbitrarily extended by using the underlying macro language to develop custom formats. Such macros are often collected into packages, which are available to address special formatting issues such as complicated mathematical content or graphics. Indeed, in the example below, the align environment is provided by the amsmath package.

As a macro package, LaTeX provides a set of macros for TeX to interpret. There are many other macro packages for TeX, including Plain TeX, GNU Texinfo, AMSTeX, and ConTeXt.

When TeX "compiles" a document, the processing sequence (from the user's point of view) goes like this: Macros > TeX > Driver > Output. Different implementations of each of these steps are typically available in TeX distributions. Traditional TeX will output a DVI file, which is usually converted to a

이 글은 위키백과에서 가져온 것이다.

PostScript file. More recently, Hàn Thế Thành and others have written a new implementation of TeX called pdfTeX, which also outputs to PDF and takes advantage of features available in that format. The XeTeX engine developed by Jonathan Kew merges modern font technologies and Unicode with TeX. The default font for LaTeX is Knuth's Computer Modern, which gives default documents created with LaTeX the same distinctive look as those created with plain TeX. XeTeX allows the use of OpenType and TrueType (that is, outlined) fonts for output files.

There are also many editors for LaTeX, listed in section See also.