

# Sections and Chapters

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# Chapter 1

## An Introduction to LuaTeX

### 1.1 What is it—and what makes it so different?

LuaTeX is a *toolkit*—it contains sophisticated software tools and components with which you can construct (typeset) a wide range of documents. The subtitle of this article also poses two questions about LuaTeX: What is it—and what makes it so different? The answer to “What is it?” may seem obvious: “It’s a TeX typesetting engine!” Indeed it is, but a broader view, and one to which this author subscribes, is that LuaTeX is an extremely versatile TeX-based document construction and engineering system.

#### 1.1.1 Explaining LuaTeX: Where to start?

The goal of this first article on LuaTeX is to offer a context for understanding what this TeX engine provides and why/how its design enables users to build/design/create a wide range of solutions to complex typesetting and design problems—perhaps also offering some degree of “future proofing”

## Chapter 2

# LuaTeX: Background and history

### 2.1 Introduction

LuaTeX is, in TeX terms, “the new kid on the block” despite having been in active development for over 10 years.

#### 2.1.1 LuaTeX: Opening up TeX’s “black box”

Knuth’s original TeX program is the common ancestor of all modern TeX engines in use today and LuaTeX is, in effect, the latest evolutionary step: derived from the pdfTeX program but with the addition of some powerful software components which bring a great deal of extra functionality.