

A Two Column Example

The L^AT_EX Team

2025-06-18

Abstract

An example document showing automatic tagging of typical structures found in a L^AT_EX document, including titles, sections, theorems, lists, citation lists and mathematics. A two column layout is used, the tagging enables the reading order to correctly follow the flow of text through the columns.

Contents

1	Introduction	1
2	Document structures	1
2.1	Mathematics	1
2.2	Lists	1
2.3	Figures and Tables	2
2.4	Theorems	2
2.5	Verbatim	2
3	Citations	2

1 Introduction

This document shows a typical two-column document incorporating tables, figures and mathematics.

Apart from two commands at the start to enable tagging, and a small amount of additional markup to give alternative texts for graphics inclusion, and to specify the heading rows of tables.¹ The docu-

¹The current tagging markup for tables is temporary and a new interface for tagging tables will be developed.

ment just uses standard L^AT_EX markup that would be used in any L^AT_EX document since the 1980s.

2 Document structures

2.1 Mathematics

Let p be a prime, then

$$n^p = n \pmod{p}$$

An aligned set of equations:

$$f(x) = \sin x + \cos x \quad f'(x) = \cos x - \sin x \quad (2.1)$$

$$g(x) = 2 \cos x \quad g'(x) = -2 \sin x \quad (2.2)$$

Matrices.

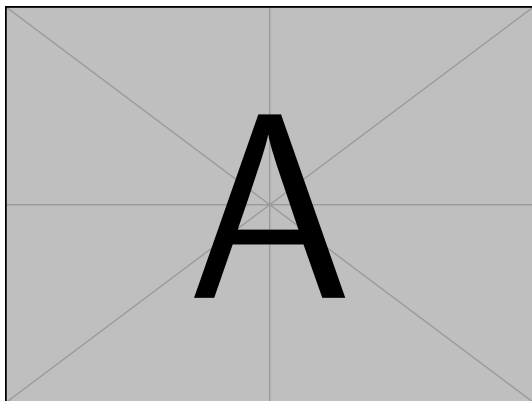
$$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix} = \begin{pmatrix} 1 & 3 \\ 3 & 7 \end{pmatrix}$$

2.2 Lists

Lists often occur in documents.

- They may be unordered bullet lists
- Or may be numbered lists
 1. lists may also be nested in an outer list
 2. items within such a list may be referenced.

Here we reference item 2.

Figure 1: Larger image set as a *float*


3 Citations

It is also possible to cite works from a bib_{TEX} database, here we cite [2] and [1] from the `tugboat.bib` sample file distributed with bib_{TEX}.

References

- [1] Taco Hoekwater. Lua_{TEX}. *TUGboat*, 28(3):312–313, 2007.
- [2] Don Knuth. Comments on quality in publishing. *TUGboat*, 5(1):67–67, May 1984.

2.3 Figures and Tables

Small images may be shown inline  and small tables may be shown within the paragraph:

Example	
Name	Value
This	11
That	2

Marginal notes are usually placed in the outer margin.

Larger figures such as Figure 1 are usually placed in a *float* to be positioned at a suitable place to help with column and page breaking.

2.4 Theorems

Theorem 1 (Fermat’s Last Theorem). *If $n > 2$, then there are no non-zero integers a, b, c such that $a^n + b^n = c^n$.*

2.5 Verbatim

Some documents require verbatim code blocks to be displayed.

```
main( ) {
    printf("hello, world");
}
```