A Two Column Example

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2025-06-18

Abstract

An example document showing automatic tagging of typical structures found in a LaTeX 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

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 document just uses standard LaTeX markup that would be used in any LaTeX document since the 1980s.

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

2 Document structures

2.1 Mathematics

Let p be a prime, then

$$n^p = n \mod p$$

An aligned set of equations:

$$f(x) = \sin x + \cos x \qquad f'(x) = \cos x - \sin x \tag{2.1}$$
$$g(x) = 2\cos x \qquad g'(x) = -2\sin x \tag{2.2}$$

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.

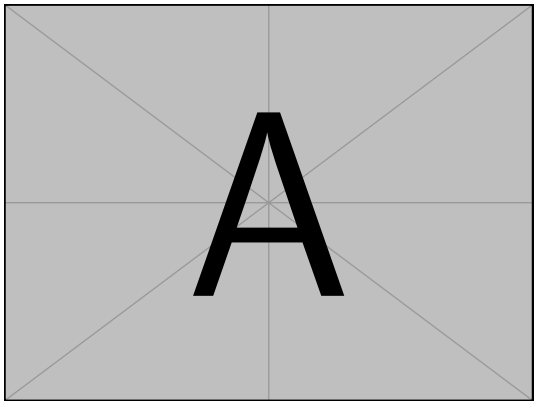

Figure 1: Larger image set as a *float*

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");
}
```

3 Citations

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

References

[1] Taco Hoekwater. LuaTEX. *TUGboat*, 28(3):312–313, 2007.

[2] Don Knuth. Comments on quality in publishing. *TUGboat*, 5(1):67–67, May 1984.