

# The `tlgart` package\*

Joel Uckelman  
juckelma@illc.uva.nl

May 5, 2007

## 1 Introduction

The `tlgart` package is provided for authors of articles to appear in collections in the book series “Texts in Logic and Games”, published by Amsterdam University Press. It was written by Joel Uckelman. Deviations from standard L<sup>A</sup>T<sub>E</sub>X are few and noted below.

## 2 Usage

### 2.1 Frontmatter

#### 2.1.1 Document class and required packages

The `tlgart` package is intended for use with the `book` document class. `tlgart` loads the following packages: `amsmath`, `amsfonts`, `amssymb`, `amsthm`, `geometry`, and `crop`. If you want to add other packages, load them after the `\usepackage{tlgart}` line. Please use as few packages as possible, and use them only if absolutely necessary. This means that your paper should begin with the following lines:

```
\documentclass{book}
\usepackage{tlgart}
\usepackage{your packages}
```

#### 2.1.2 Title & author information

The following commands are provided for specifying title and author information to be placed in the title block of your article:

```
\title{short title}{full title}
\author{short name}{full name}
\address{author's address}
\email{email address}
```

The short form of the author’s name will appear in the running heads on even pages of the article, while the short form of the article’s title will appear on odd

---

\*This document corresponds to `tlgart` v0.1, dated 2007/05/04.

pages. Please include your first name in the full name, and use initials in the short name (see example below).

Line breaks (`\`) may appear in the full title, full name, author's address and email address, as necessary. `\thanks{<text>}` may appear in the full name argument of `\author`. For articles with multiple authors, give full names separated by line breaks and short names separated by commas. For multiple addresses, match addresses with authors using superscript numbers (*not* footnotes!). Please enter your address in the format

```
<Address> \\  
<University> \\  
<Postal Address> \\  
<City & ZIP Code>, <Country>
```

adding additional lines if necessary and appropriate. Please use the full name of your institute (no abbreviations) and the official name of your university (in the example below, "Rheinische Friedrich-Wilhelms-Universität Bonn" instead of "Universität Bonn"). Do not translate the name of your institute and university unless the original name uses a different alphabet. As an example, the following code

```
\title{An Example Paper}  
  {An Example Paper for the \texttt{tlgart} Documentation}  
\author{B.~L"owe, J.~Uckelman}  
  {Benedikt L"owe1,2 \ \ Joel Uckelman1}  
\address{1Institute for Logic, Language and Computation \\  
  Universiteit van Amsterdam\<\  
  Plantage Muidergracht 24\<\  
  1018 TV Amsterdam, The Netherlands\ [2mm]  
  2Mathematisches Institut\<\  
  Rheinische Friedrich-Wilhelms-Universit"at Bonn\<\  
  Beringstra{\ss}e 1\<\  
  53115 Bonn, Germany}  
\email{\{bloewe,juckelma\}@illc.uva.nl}
```

produces the following in the title block:

---

## An Example Paper for the tlgart Documentation

Benedikt Löwe<sup>1,2</sup>  
Joel Uckelman<sup>1</sup>

<sup>1</sup> Institute for Logic, Language and Computation  
Universiteit van Amsterdam  
Plantage Muidergracht 24  
1018 TV Amsterdam, The Netherlands

<sup>2</sup> Mathematisches Institut  
Rheinische Friedrich-Wilhelms-Universität Bonn  
Beringstraße 1  
53115 Bonn, Germany  
{bloewe,juckelma}@illc.uva.nl

`\title`, `\author`, `\address`, and `\email` must be specified *prior* to the `\article` command, since `\article` uses the values specified there to construct the title block, table of contents entry and bibliographic information in the footer of the title page. See Section 2.2.1 for a description of `\article`.

### 2.1.3 Macros

Please enter your personal macros after the title and author information and before `\begin{document}`. Please include only macros that you are actually using.

## 2.2 Sectioning

### 2.2.1 The `\article` command

The `\article` command is used right after `\begin{document}` to begin your article, and takes no arguments. `\article` is the highest-level section type which should appear in your article, and it should appear exactly once. There should be *nothing* between `\begin{document}` and `\article`. `\article` produces the title header, sets up the running heads, and inserts the article into the Table of Contents, using the information provided by `\title`, `\author`, `\address`, and `\email`.

### 2.2.2 The abstract environment

Put your abstract in the `abstract` environment, following the `\article` command. Usage is unchanged from the `article` class.

### 2.2.3 The `\part` & `\chapter` commands

Do not use `\part` or `\chapter` in your article. They are reserved for higher-level structure of volumes.

### 2.2.4 `\section` & co.

All subchapter sectioning commands (`\section`, `\subsection`, `\subsubsection`, `\paragraph`, `\subparagraph`, and their starred versions) may be used as usual.

### 2.2.5 References

A bibliography may be produced in the standard way with the `thebibliography` environment and `\bibitem` command.

### 2.2.6 Appendices

Put appendices after the references. Use the `\appendix` command to switch to appendix numbering. For a single unlettered appendix, called “Appendix”, use `\section*{Appendix}`. For multiple appendices, called “Appendix A”, “Appendix B”, ..., begin each appendix with `\section{}`.

## 2.3 Displayed Text

### 2.3.1 Theorem-like environments

Using the `amsthm` package, we have defined the following theorem-like environments:

<code>assumption</code>	<code>definition</code>	<code>observation</code>
<code>axiom</code>	<code>example</code>	<code>problem</code>
<code>claim</code>	<code>exercise</code>	<code>proposition</code>
<code>conjecture</code>	<code>fact</code>	<code>remark</code>
<code>convention</code>	<code>lemma</code>	<code>subclaim</code>
<code>corollary</code>	<code>notation</code>	<code>theorem</code>

Please use these. By default, all theorem-like environments are numbered by section and sequentially in the same series. That is, Theorem 3.43 will follow Observation 3.42.

If your article requires some theorem-like environment not defined here, you may define new ones using `\newtheorem{envname}[counter]{label}`. For example, `\newtheorem{garbage}[theorem]{Garbage}` will define a `garbage` environment, instances of which will be numbered in sequence with the theorems.

Every theorem-like environment takes an optional argument which can be used to supply an annotation. E.g., this code

```
\begin{theorem}[Fermat]
  For integers  $n > 2$ , the equation  $a^n + b^n = c^n$ 
  has no nonzero integer solutions.
\end{theorem}
```

will produce

**Theorem 2.1 (Fermat).** For integers  $n > 2$ , the equation  $a^n + b^n = c^n$  has no nonzero integer solutions.

Our standard numbering is by section. If you wish to have one numbering for the entire article (not resetting at the begin of each section), please use the command `\numberbyarticle`. This has to be done for articles without sections, and could also be useful for other short articles. The theorem label for the above example would then read “**Theorem 1 (Fermat).**”, assuming that there are no theorem-like environments before it.

For more advanced usage of theorem-like environments, please see the documentation for the `amsthm` package.

### 2.3.2 Proof environments

The `proof` and `proofof` environments may be used for enclosing proofs:

```
\begin{proof}[label] ... \end{proof}
\begin{proofof}[label]{qedlabel} ... \end{proofof}
```

In both cases, the optional `label` defaults to *Proof* if not specified. The `proofof` environment extends `proof` by offering a labelled Q.E.D. at the end of the proof.

This code:

```
\begin{proof}Omitted due to space constraints.\end{proof}
```

```

\begin{proof}[Proof of Lemma] Suppose that...\end{proof}
\begin{proof}[Proof (Sketch)] The idea is that...\end{proof}
\begin{proofof}{Theorem 1}Proceed by induction...\end{proofof}
\begin{proofof}[Proof of Claim]{Claim}This proves the claim.\end{proofof}

```

produces the following:

*Proof.* Omitted due to space constraints. Q.E.D.

*Proof of Lemma.* Suppose that... Q.E.D.

*Proof (Sketch).* The idea is that... Q.E.D.

*Proof.* Proceed by induction... Q.E.D. (Theorem 1)

*Proof of Claim.* This proves the claim. Q.E.D. (Claim)

For more advanced usage of the `proof` environment, please see the documentation for the `amsthm` package.

## 2.4 Tables and figures

Tables and figures are numbered each with their own counter, which resets at the start of every article. If there are  $n$  tables and  $m$  figures in article, they will be numbered  $1, \dots, n$  and  $1, \dots, m$ , respectively.

## 2.5 Everything else

Anything not mentioned here is unchanged usage-wise from standard L<sup>A</sup>T<sub>E</sub>X.