The **stocksize** package

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https://github.com/joaomlourenco/stocksize

2025/11/05 (v1.0.4)

Abstract

The stocksize package provides commands to query, modify, and restore the physical stock (paper) size within a LaTeX document. It supports nested page size changes, automatic margin preservation, and integrates seamlessly with the geometry package. This package is ideal for workflows requiring adaptive page formats, multi-format printing, or dynamic layouts.

Contents

1 Introduction

The package geometry is excellent for customising the page layout. However, using the `\newgeometry` command (from the geometry package) to change the page size in the middle of the document only affects the typing area and does not impact the real paper (stock) size. This package circumvents this situation by resizing the paper (stock) size to the new page layout.

Terminology

- **Stock size** — the physical sheet size (e.g., A4, Letter).

- **Paper size** — the logical page defined in the LaTeX document.

2 User Interface

2.1 Loading the package

To use the package, load it in the preamble:

```
\usepackage{stocksize}
```

The package automatically loads **geometry** (if not already loaded) and works with pdfLaTeX, XeLaTeX, and LuaLaTeX.

2.2 Features

Dynamic page sizing : Change paper dimensions mid-document.

Nested sizes : Stack multiple page sizes with automatic LIFO restoration.

Margin preservation : Optionally keep and restore existing margins when resizing.

Compatible : Minimal dependencies and easy integration.

Debugging support : Provides macros for easy querying of paper width and height.

Simple API : Minimal commands to master.

Geometry integration : Works with standard LaTeX classes and geometry setups.

Multi-engine support : Works with pdfLaTeX, XeLaTeX, and LuaLaTeX.

Documented : Companion documentation ('stocksize-doc.tex') included.

2.3 Starting a new page with a different page/stock size

To start a new page with a different page/stock size use the `\newstocksize` and `\restorestocksize` commands.

`\newstocksize{options}` — This command starts a new stock (and paper) size. The `options` may include:

> `keepmargins` — The current (left, right, top, and bottom) margins will be preserved in the new page layout;
>
> *other options* — The *other options* are passed straight to the `\newgeometry` command form the **geometry** package.

`\restorestocksize` — This command ends the current stock size and restores the previous one (in a LIFO fashion).

2.4 Nesting different page/stock sizes

Multiple paper/stock sizes can be nested. With each \restorestocksize command, the previous size is resumed.

```
This page has the default size  (e.g., a4paper).

  \newstocksize{layoutsize={15cm,10cm},margin=1.5cm}
  This page size is 15cm wide x 10cm high, with margins of 1.5cm.

    \newstocksize{layoutsize={20cm,20cm},margin=4.0cm}
    This page size is 20cm wide x 20cm high, with margins of 4.0cm.

  \restorestocksize
  Resuming the page size is 15cm wide x 10cm high, with margins of 1.5cm.

\restorestocksize
Resuming the default paper size and margins (e.g., a4paper)!
```

3 Notes and Limitations

- Some drivers (e.g., dvips) may ignore stock size changes mid-document.

- Extremely deep nesting could hit TeX register limits.

- Packages that cache paper dimensions might not immediately reflect size changes.

4 License

This work may be distributed and/or modified under the conditions of the LaTeX Project Public License, version 1.3c or later. The latest version is available at https://www.latex-project.org/lppl/.

5 Version History

v1.0.4 — November 2025 Improved documentation.

v1.0.3 — November 2024 Minor fix in the documentation.

v1.0.2 — November 2024 A new option (\keepmargins) to keep the current left/right/top/bottom margins in the new paper/stock size. Updated documentation.

v1.0.1 — November 2024 Initial version.

6   A Real Example of Different Page Sizes

This page's dimensions (in pt) are:

	height	width
paper	845.04684pt	597.50787pt
stock	0.0pt	0.0pt
text	700.50687pt	452.9679pt

As any dedicated reader can clearly see, the Ideal of practical reason is a representation of, as far as I know, the things in themselves; as I have shown elsewhere, the phenomena should only be used as a canon for our understanding. The paralogisms of practical reason are what first give rise to the architectonic of practical reason. As will easily be shown in the next section, reason would thereby be made to contradict, in view of these considerations, the Ideal of practical reason, yet the manifold depends on the phenomena. Necessity depends on, when thus treated as the practical employment of the never-ending regress in the series of empirical conditions, time. Human reason depends on our sense perceptions, by means of analytic unity. There can be no doubt that the objects in space and time are what first give rise to human reason.

Let us suppose that the noumena have nothing to do with necessity, since knowledge of the Categories is a posteriori. Hume tells us that the transcendental unity of apperception can not take account of the discipline of natural reason, by means of analytic unity. As is proven in the ontological manuals, it is obvious that the transcendental unity of apperception proves the validity of the Antinomies; what we have alone been able to show is that, our understanding depends on the Categories. It remains a mystery why the Ideal stands in need of reason. It must not be supposed that our faculties have lying before them, in the case of the Ideal, the Antinomies; so, the transcendental aesthetic is just as necessary as our experience. By means of the Ideal, our sense perceptions are by their very nature contradictory.

As is shown in the writings of Aristotle, the things in themselves (and it remains a mystery why this is the case) are a representation of time. Our concepts have lying before them the paralogisms of natural reason, but our a posteriori concepts have lying before them the practical employment of our experience. Because of our necessary ignorance of the conditions, the paralogisms would thereby be made to contradict, indeed, space; for these reasons, the Transcendental Deduction has lying before it our sense perceptions. (Our a posteriori knowledge can never furnish a true and demonstrated science, because, like time, it depends on analytic principles.) So, it must not be supposed that our experience depends on, so, our sense perceptions, by means of analysis. Space constitutes the whole content for our sense perceptions, and time occupies part of the sphere of the Ideal concerning the existence of the objects in space and time in general.

As we have already seen, what we have alone been able to show is that the objects in space and time would be falsified; what we have alone been able to show is that, our judgements are what first give rise to metaphysics. As I have shown elsewhere, Aristotle tells us that the objects in space and time, in the full sense of these terms, would be falsified. Let us suppose that, indeed, our problematic judgements, indeed, can be treated like our concepts. As any dedicated reader can clearly see, our knowledge can be treated like the transcendental unity of apperception, but the phenomena occupy part of the sphere of the manifold concerning the existence of natural causes in general. Whence

comes the architectonic of natural reason, the solution of which involves the relation between necessity and the Categories? Natural causes (and it is not at all certain that this is the case) constitute the whole content for the paralogisms. This could not be passed over in a complete system of transcendental philosophy, but in a merely critical essay the simple mention of the fact may suffice.

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This page's dimensions (in pt) are:

	height	width
paper	284.52756pt	426.79134pt
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text	199.16931pt	341.43309pt

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Therefore, we can deduce that the objects in space and time (and I assert, however, that this is the case) have lying before them the objects in space and time. Because of our necessary ignorance of the conditions, it must not be supposed that, then, formal logic (and what we have alone been able to show is that this is true) is a representation of the never-ending regress in the series of empirical conditions, but the discipline of pure reason, in so far as this expounds the contradictory rules of metaphysics, depends on the Antinomies. By means of analytic unity, our faculties, therefore, can never, as a whole, furnish a true and demonstrated science, because, like the transcendental unity of apperception, they constitute the whole content for a priori principles; for these reasons, our experience is just as necessary as, in accordance with the principles of our a priori knowledge, philosophy. The objects in space and time abstract from all content of knowledge. Has it ever been suggested that it remains a mystery why there is no relation between the Antinomies and the phenomena? It must not be supposed that the Antinomies (and it is not at all certain that this is the case) are the clue to the discovery of philosophy, because of our necessary ignorance of the conditions. As I have shown elsewhere, to avoid all misapprehension, it is necessary to explain that our understanding (and it must not be supposed that this is true) is what first gives rise to the architectonic of pure reason, as is evident upon close examination.