Package bounddvi v8.2

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Package bounddvi sets papersize special into DVI file. This package can be used in both tate (vertical) and yoko (horizontal) writing directions of Japanese pLaTeX/upLaTeX, and both `dvipdfmx` and `dvips` drivers are supported. The `tombow` option defined in Japanese pLaTeX kernel is also supported. Of course, this package can be used also with the original LaTeX in DVI output mode.

This package (since v7.0) is part of gentombow bundle:

`https://github.com/aminophen/gentombow`

Originally it was part of platex-tools bundle, but it has been moved since March 2018.

Usage

Load this package in preamble.

```
\documentclass[a5paper]{article}
\usepackage{bounddvi}
...
```

Process the `.tex` file using `latex` + `dvips` chain or `latex` + `dvipdfmx` chain.

Known limitations

1. The compatibility with geometry package may not be perfect, as both geometry and bounddvi embeds papersize special into a DVI file. The loading order of these two packages may affect the actual size of output.
2. This package supports "jsclasses-like employment" of `\mag`, because it's more widely used in Japan. This may be incompatible with some classes or packages which employ `\mag` in other ways.

The details are described in the sections below.

The behavior of multiple papersize specials

Sometimes multiple papersize specials may be embedded into a DVI file. Among these specials, the specification which appears *at last* in DVI takes effect when

`dvipdfmx` or `dvips` (TeX Live 2017 or later) is used[1]. For example, when the following source is processed with `dvipdfmx`,

```
% latex + dvipdfmx
\documentclass{...}
\usepackage{bounddvi}
\usepackage[dvipdfm]{geometry}
```

the specification by geometry wins.

Note about \mag handling

Among the packages in CTAN, there are two types of implementation in terms of `\mag` employment. It seems that there is no (official or practical) "standard" in `\mag` treatment.

When the output is going to the physical size of A4 (210 mm × 297 mm) with the setting of `\mag=2000`, there are two ways: some classes/packages can set

> `\mag=2000`
> `\paperwidth=210mm` (= 420 truemm)
> `\paperheight=297mm` (= 594 truemm)

and others can set

> `\mag=2000`
> `\paperwidth=105mm` (= 210 truemm)
> `\paperheight=148.5mm` (= 297 truemm)

The first way is adopted by geometry package etc, and it's (probably) based on the behavior of the `papersize` special of `dvips`. It does not handle true units properly, and accepts only non-true units and evaluates them as if they were true units. The second way is adopted by jsclasses document class etc, and is also suppoted by `pdf:pagesize` special of `dvipdfm(x)`. This can be more consistent with LaTeX, since all other layout parameters (e.g. `\textwidth`) are set according to the unit truemm.

The bounddvi supports the latter, so some classes/packages which are based on the former may or may not work properly when using bounddvi package.

References

- Setting paper size using `dvips` & `dvipdfm` (description in Japanese) `https://www.ma.ns.tcu.ac.jp/Pages/TeX/bounddvi.sty.html`

ChangeLog

- 2002/03/10 v1.0 (KI) First version
- 2002/10/30 v2.0 (KI) Add `dvipdfm pdf:pagesize` special

[1] When `dvips` in TeX Live 2016 or earlier is used, the specification which appears *first* in DVI took effect, but the default behavior was changed in TeX Live r42420 to be compatible with `dvipdfmx`. The new option `-L0` can be used to recover the old behavior.

- 2003/03/22 v3.2 (KI) Compatibility with hyperref
- 2004/05/08 v4.0 (KI) Support for `\mag` $\neq 1000$
- 2004/12/08 v5.2 (KI) Compatibility with geometry
- 2004/12/15 v6.0 (KI) Not to use `dvipdfm(x) pdf:pagesize special`
- 2016/10/25 v7.1 (HY) Support for pLaTeX 2_ε tombow option, compatibility with graphics/color packages
- 2016/12/28 v7.2 (HY) Documentation for the new `dvips` behavior
- 2020/09/25 v8.0 (HY) Support for LaTeX 2_ε/pLaTeX 2_ε 2020-10-01