spotxcolor Package

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Abstract

This package provides modern and robust spot color (e.g., DIC, PANTONE) support for the xcolor package across all major TEX engines.

1 Motivation

While the legacy spotcolor package has been used for years, it suffers from structural PDF compatibility issues with modern expl3 and xcolor updates. The colorspace package is an excellent modern alternative, but it lacks full support for the `dvipdfmx` driver.

To address this, the spotxcolor package natively hooks into the xcolor package to provide:

- Perfect PDF structure generation for `pdftex` and `luatex`.

- Safe CMYK fallback for `dvipdfmx` and `xetex` when using the `\textcolor` macro.

- Manual spot color injection commands for exact spot color output in `dvipdfmx`.

- Complete backward compatibility with old spotcolor and colorspace user commands.

2 Loading the **spotxcolor** Package

Load the spotxcolor package in your preamble. It automatically detects your engine via the iftex package.

```
\usepackage{spotxcolor}
```

3 Usage

3.1 Defining and Using Spot Colors

Use \definespotcolor to register a spot color. The arguments are: LaTeX name, PDF name, and CMYK values. Once registered, you can use standard xcolor commands:

```
\definespotcolor{DIC161}{DIC 161s*}{0, 0.64, 1, 0}

\textcolor{DIC161}{This text is DIC 161.}
```

3.2 Dvipdfmx Explicit Spot Colors

Because the dvipdfmx backend strictly falls back to a CMYK representation when using standard \textcolor, you can force true spot color output (creating an independent separation plate in the PDF) using the \SpotColor command:

```
\SpotColor{DIC161}{1.0}
This text is 100\% DIC 161.

\SpotColor{DIC161}{0.5}
This text is 50\% DIC 161.
```

3.3 Note for (u)pLaTeX Users

If you compile your document with platex or uplatex and generate a PDF via dvipdfmx, you **must** specify the dvipdfmx driver option globally in your document class:

```
\documentclass[dvipdfmx]{article}
```

Without this option, modern expl3 and xcolor will default to the dvips driver, and the PDF objects for spot colors will not be generated correctly.

3.4 Backward Compatibility

You can safely reuse your legacy code and dictionaries written for the spotcolor package. They are automatically mapped to modern spotxcolor implementations:

```
\NewSpotColorSpace{DIC}
\AddSpotColor{DIC}{DIC161}{DIC\SpotSpace 161s*}{0 0.64 1 0}
\SetPageColorSpace{DIC}
```