## The mdframed package

Examples for framemethod=default

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In this document I collect various examples for framemethod=default. Some presented examples are more or less exorbitant.

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# 1 Loading

In the preamble only the package mdframed width the option framemethod=default is loaded. All other modifications will be done by \mdfdefinestyle or \mdfsetup.

#### Note

Every \global inside the examples is necessary to work with the package showexpl.

## 2 Examples

All examples have the following settings:

```
\mdfsetup{skipabove=\topskip,skipbelow=\topskip}
\newrobustcmd\ExampleText{%

An \textit{inhomogeneous linear} differential equation
has the form
\begin{align}
L[v] = f,
\end{align}
where $L$ is a linear differential operator, $v$ is
the dependent variable, and $f$ is a given non-zero
function of the independent variables alone.
}
```

### Example 1 – Package listings

The example below is inspired by the following post on StackExchange Background overflows when using rounded corners for listings (package: 'listings')

Here the solution which can be decorate as usual.

```
\label{eq:beginEnvironment} $$ \BeforeBeginEnvironment{lstlisting}{\%$ $$ \begin{mdframed}[<modification>]\%$ $$ \vspace{-0.7em}} $$ \AfterEndEnvironment{lstlisting}{\%$ $$ \vspace{-0.5em}\%$ $$ \end{mdframed}$$}
```

With the new command \surroundwithmdframed you can use

```
\slashsurroundwithmdframed{listings}
```

### Example 2 - Package multicol

How I wrote in "Known Problems" you can't combine multicol with mdframed. In a simple way without any breaks you can use:

```
\begin{multicols}{2}
\lipsum[1]
\begin{mdframed}
\ExampleText
\end{mdframed}
\lipsum[2]
\end{multicols}
```

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An *inhomogeneous linear* differential equation has the form

$$L[v] = f, (1)$$

where L is a linear differential operator, v is the dependent variable, and f is a given non-zero function of the independent variables alone.

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### Example 3 - Working in twocolumn mode

```
\twocolumn[%
\Examplesec{Working in
twocolumn mode}]
\lipsum[1]\lipsum[2]
\begin{mdframed}[%
leftmargin=10pt,%
rightmargin=10pt,%
linecolor=red,
backgroundcolor=yellow]
\ExampleText
\end{mdframed}
\lipsum[2]
```

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An *inhomogeneous linear* differential equation has the form

$$L[v] = f, (2)$$

where L is a linear differential operator, v is the dependent variable, and f is a given non-zero function of the independent variables alone.

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### Example 4 – Working inside enumerate

```
Text Text Text Text Text Text Text

| begin{enumerate}
| item in the following | ldots
| begin{mdframed}[linecolor=blue,linewidth=2]
| ExampleText
| end{mdframed}
| item | lipsum[2]
| end{enumerate}
| Text Text Text Text Text Text Text
```

Text Text Text Text Text Text Text Text

1. in the following ...

An inhomogeneous linear differential equation has the form

$$L[v] = f, (3)$$

where L is a linear differential operator, v is the dependent variable, and f is a given non-zero function of the independent variables alone.

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Text Text Text Text Text Text