

# BlockOptions package

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## Introduction

The BlockOptions package provides a dynamic scoping construct which makes local any changes to the Options values associated with one or more symbols. This is useful for temporarily modifying the default option values for a symbol without having these changes affect the rest of the *Mathematica* session. The capability provided here differs from that of the traditional *Mathematica* Block construct, which makes local *all* definitions associated with a symbol and hides the global values.

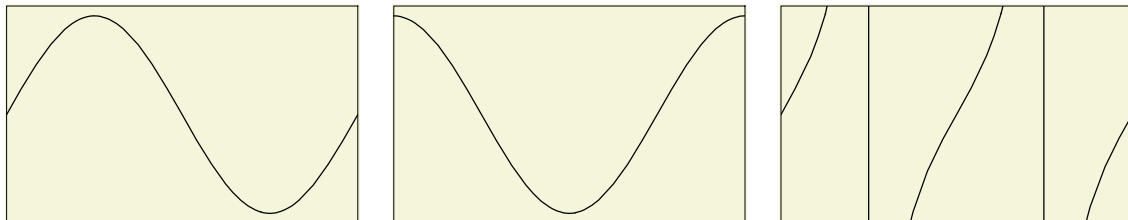
## Usage

```
BlockOptions[{ symbol1, symbol2, ... }, body] Evaluates body, making local any changes to the
Options values for symbol1, symbol2, ...
```

Options scoping construct.

As an example, we use BlockOptions to make several plots in a desired style without affecting the global defaults for Plot.

```
PlotList = BlockOptions[
  {Plot},
  SetOptions[Plot,
    Axes → False, Frame → True,
    TextStyle → {FontFamily → Times},
    PlotRange → {{0, 2 * Pi}, {-1.1, 1.1}},
    FrameTicks → None,
    DisplayFunction → Identity,
    Background → RGBColor[0.96, 0.96, 0.86]
  ];
  {Plot[Sin[x], {x, 0, 2 * Pi}], Plot[Cos[x], {x, 0, 2 * Pi}], Plot[Tan[x], {x, 0, 2 * Pi}]}
];
Show[GraphicsArray[PlotList], ImageSize → 450];
```



### Technical notes

BlockOptions properly saves and restores the global options values for symbols even if they have the attribute Protected.

BlockOptions handles aborts generated during evaluation of *body* gracefully. It restores all saved global option values before then propagating the abort and returning the value \$Aborted.

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