thematicpuzzle [en]

Present a horizontal 'puzzle',
with different themes.

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Angry
Python
Cool
Apple
Battery

Tks to quark67 for his feedbacks.
1 Introduction

1.1 Description

With this package, it is possible to create a horizontal banner, in the form of a puzzle, with different themes. The styles are globally fixed, but it is possible to configure:

- colors;
- icons;
- labels.

The interior borders are randomly oriented to the left or to the right, and the code takes care of coloring (if applicable) the parts satisfactorily.

1.2 Decorations

For the moment, the decorations of the parts must be declared as characters, for example with icons from the fontawesome5 package (loaded by the package). Ultimately, it may be possible to insert images or TikZ codes, this is one of the areas for improvement.

1.3 Loading

To load the package, simply add in the preamble:

\usepackage{thematicpuzzle}

The useful and loaded packages are:

- \texttt{tikz, fontawesome5 et xintexpr} ;
- \texttt{simplekv, listofitems et xstring}.

1.4 History

0.1.1 : Enhancements for colors
0.1.0 : Initial release
2 The macro

2.1 General usage, keys and options

In order to create a theme puzzle, the command is:

\%----thematic puzzle
\ThematicPuzzle[keys][tikz options]{decoration list}

The keys, optional and between [...], are:

- **Thickness** := thickness of the lines (1pt by default);
- **Scale** := global scale of the figure (1 by default);
- **BgColors** := background color(s) (see paragraph on colors);
- **BorderColor** := color(s) of the borders (black by default);
- **Labels** := (optional) labels of the themes ({} by default);
- **ScaleLabels** := label scale (1.15 by default);
- **FontLabels** := label font (\tiny\sffamily by default);
- **IconsColor** := color of icons and labels (black by default).

The optional argument, between <...>, corresponds to specific options (in TikZ language) to pass to the created environment.

The obligatory argument, between {...}, corresponds to the list of decorations (in the form of characters) of the different puzzle pieces, within form \{deco<1>, deco<2>, ..., deco<n>\}

2.2 The colors of the boxes

Concerning the color of the boxes, it’s the key BgColors which is in charge.

It can work in several ways:

- by default it is empty, which does not color the boxes;
- it can be given in a single form, via BgColors=mycolor, in which case all the boxes are of the same color;
- we can give it in the form of a list BgColors={mycolorA, mycolorB, ...} and:
  - in the case where the number of colors is sufficient, they are used one after the other;
  - otherwise, the code takes care of repeating the pattern of the proposed colors.
2.3 Examples

\ThematicPuzzle{\faAngry, \faArchway, \faAtlas, \faAtom}

\ThematicPuzzle[Labels={Maths, History, Geo, Chemistry}, BgColors={yellow!25, red!25}] %
{\faAngry, \faArchway, \faAtlas, \faAtom}

\ThematicPuzzle[
[Scale=2, BgColors=yellow!25, Labels={Maths, History, Geo, Chemistry}] %
{\faAngry, \faArchway, \faAtlas, \faAtom}

\ThematicPuzzle[
[Scale=3, BgColors={yellow!10, orange!10, red!10, teal!10},
Labels={Maths, History, Geo, Chemistry}] %
{\faAngry, \faArchway, \faAtlas, \faAtom}

\ThematicPuzzle[
[Thickness=2pt, Scale=1.25,
BgColors={yellow!10, orange!10, red!10, teal!10, purple!10, gray!10},
IconsColor=teal!50!black]
{P, Y, T, H, O, N}