The dndicons package

A set of high-quality icons made with TikZ for use in notes for tabletop role-playing games

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1 Introduction

The dndicons package provides a set of high-quality icons made with TikZ for use in notes for tabletop role-playing games. The icons are meant to be used in the body text, but they can also be used in other contexts such as graphics or diagrams.

Since the commands to typeset the icons use tikzpicture environments, these commands should not be used inside another tikzpicture. However, because the package defines the icons as TikZ shapes, it is possible to use the icons in tikzpicture environments directly.

Apart from that, as of version 1.1.0, the package provides a way to define custom commands to typeset the icons as boxed material which is safe to use in a tikzpicture context. As of version 1.3.1, the package provides an additional way to use the icons as TikZ pics. As of version 1.4.0, a variant of the package provides an alternative way to typeset the icons using the l3draw packagee.

2 Loading the package

The dndicons package is loaded by calling \usepackage{dndicons} in the preamble of the document.

pics

The package provides the option pics. If the package is loaded with this option, every icon is also available as TikZ pic. On the use of pics, see section 3.4 below.

2.1 Dependencies

The package loads the tikz package which in turn loads the xcolor package. If you want to make use of certain options these packages provide, you need to load the packages with the relevant options beforehand or use, for example, \PassOptionsToPackage{svgnames}{xcolor}.

3 Usage

Once loaded, the package provides a set of commands that can be used to print icons inline. The package also defines a set of node shapes that can be used inside a tikzpicture environment.

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3.1 Global settings

```
dnd icons
```

All icons share the TikZ style dnd icons that has no options per default but can be used to style all icons at once. For example, if $\tikzset\{dnd\ icons/.append\ style=\{draw=red\}\}\$ is placed at the beginning of the document, all icons will be drawn in red. Per default, the icons are drawn in the color of the surrounding text.

Note that it may be necessary to add the TikZ option transform shape when applying transformations to the icons, because the icons are realised as TikZ nodes which are not affected by some transformations per default.

```
dnd icons/background color
```

Some icons can be used with a negative color scheme where the icon is drawn negatively inside a filled shape. Per default, the icons are drawn in white in such cases, but it might be desirable that the icons are in the same color as the background. To this end, the color can be changed using the TikZ option dnd icons/background color in the following way:

This feature can, of course, also be used to change the color of the icon independently from the color of the background.

```
dnd icons/before sep
dnd icons/after sep
dnd icons/baseline
```

The TikZ options dnd icons/before sep and dnd icons/after sep are used to define the width of the space that is added before and after the icons respectively. The default value of both lengths is 0.05 em. For example, setting the space before icons to 1 cm can be achieved as follows:

```
Roll\die{eightside}{}a die!

Roll\adie! \tikzset{
Roll \alpha die! dnd icons/before sep={1cm}
}
Roll\die{eightside}{}a die!
```

The option baseline can be used to adjust the baseline of the icons. A larger value for the baseline will shift the icon downwards relative to the baseline of the surrounding text. The default value of the baseline is -3.5 pt.

3.2 Icons

Because the package defines the icons as TikZ shapes, every command can actually be used together with every shape. However, the combinations of shapes and commands as described in the following subsections are preferable.

3.2.1 Icon \die

```
\die[<style>]{<shape>}[<options>]{<integer>}
```

The command \die prints an icon to depict a die with a certain number of sides. Two special icons exist for a two-sided die (which would be equivalent to a coin) and for a hundred-sided die (which typically comes in the shape of a sphere). There is also a special icon for a fudge die.

For the six-sided die, nine additional shapes exists representing the values one to nine as pips. Also, additional shapes exist representing the plus or minus side of a fudge die.

The command takes two mandatory commands, the first of which describes the shape (see previous subsection) and the second can take an integer that is placed in front of the shape. Thus, \die{eightside}{2} results in 2 (meaning 2 eight-sided dice are rolled).

The command also takes two optional arguments, the second of which can take arbitrary TikZ options to style the icon. The options affect the shape, not the integer when it is printed before the icon. As an example, \die{eightside}[blue, thick]{2} results in 2 \(\Q \).

Command	Icon	Shape
\die	0	twoside
	\triangle	fourside
		sixside
		eightside
	\Diamond	tenside
		twelveside
	\otimes	twentyside
	\bigcirc	hundredside
	<u>±</u>	fudge
	•	sixside one
	<pre> sixside two sixside three sixside four sixside five sixside six sixside seven sixside seven sixside eight sixside nine sixide nine sixide nine sixide nine sixide nine sixide nine sixide</pre>	sixside two
		sixside three
		sixside four
		sixside five
		sixside six
		sixside eight
		sixside nine
	+	fudge plus
	-	fudge minus

3.2.2 Icons \ability and \saving

```
\ability[<style>]{<shape>}[<options>]
```

The command \ability prints icons depicting an ability of a character. The abilities are represented by animal-like shapes. The relevant shape should be given as mandatory argument to the command. The second optional argument can take arbitrary TikZ options to style the icon.

The first optional argument can take the value positive or negative, positive being the default value. With negative given as argument, the icon is drawn negative inside a circle. As an example, \ability[negative]{charisma} results in

```
\saving[<style>]{<shape>}[<options>]
```

The command \saving prints the icons that can be typeset using the \ability command inside a small shield. It can take the same values for the mandatory argument as the \ability command. The optional argument can take arbitrary TikZ options to style the icon.

The first optional argument can take the value normal or empty, normal being the default value. With empty given as argument, the icon inside the shield is not printed. In this case, the mandatory argument can be left empty. As an example, \saving[empty]{} results in \subseteq.

Command	Icon	Shape
\ability	Ţ	strength
	₩	dexterity
	₩	dexterity alt
		constitution
	£ ~ }	intelligence
	<i>জ</i>	wisdom
		charisma
	\$	luck
	世	armor
	☆	proficiency
\saving		strength
		dexterity
		dexterity alt
	a	constitution
		intelligence
	®	wisdom
		charisma
	9	luck
	(19)	armor
	*	proficiency

3.2.3 Icon \spell

```
\spell{<shape>}[<options>]
```

The command \spell prints icons depicting the effect of a spell or how it is to be effected. The optional argument can take arbitrary TikZ options to style the icon.

Command	Icon	Shape
\spell	-	linear
	\triangleleft	conic
	•	quadratic
		cubic
	①	spheric
	\odot	cylindric
	\supset	verbal
	4	somatic
	\Diamond	material
	\oplus	focus

3.2.4 Icon \spellschool

```
\spellschool[<style>]{<shape>}[<options>]
```

The command \spellschool prints icons that represent the school a spell belongs to. The second optional argument can take arbitrary TikZ options to style the icon.

The first optional argument can take the value negative or positive, negative being the default value. Per default the icon is drawn in white inside a filled escutcheon. With positive given as argument, the icon as well as the escutcheon are drawn in the currently selected color. As an example, \spellschool[positive]{evocation} results in .

Command	Icon	Shape
\spellschool	¥	abjuration
	$ \forall$	conjuration
		divination
	ħ	enchantment
	#	evocation
	8	illusion
	Ω	necromancy
	₽	transmutation

3.2.5 Icons \damage, \attack, and \condition

```
\damage{<shape>}[<options>]
```

The command \damage prints icons depicting the damage of an attack. The icon is printed inside a circle. The optional argument can take arbitrary TikZ options to style the icon.

```
\attack{<shape>}[<options>]
```

The command \attack prints icons depicting the kind of an attack. The optional argument can take arbitrary TikZ options to style the icon.

```
\condition{<shape>}[<options>]
```

The command \condition prints icons depicting a condition of a character. The optional argument can take arbitrary TikZ options to style the icon.

Command	Icon	Shape
\damage	®	acid
		bludgeoning
	*	cold
		fire
	*	force
	4)	lightning
	$^{\oplus}$	necrotic
		piercing
	<u>@</u>	poison
	6	psychic
	©	radiant
		slashing
	•	thunder
	©	healing
\attack	*	melee
	\Rightarrow	ranged
	ઉ ર	magic
	C)	singlehanded
	(A)	doublehanded
\condition	\$	buff
	ø	blinded
	©	charmed
	Ø	deafened
	8	exhausted
	3	frightened
	鲁 宁	grappled
	•	incapacitated
	\circ	invisible
		paralyzed
	6	petrified
	(29)	poisoned
	⊃ °	prone
		restrained
	**	stunned
	چ	unconscious
	9	hearing
	©	seeing

3.3 Direct use of shapes

Because the icons are defined as TikZ shapes, they can directly be applied to TikZ nodes. However, the shapes don't have a shape border and no anchors except for the center anchor that sits exactly in the center of the shape. Therefore, if nodes with these shapes are connected using edges, the center anchor will be used to connect the nodes. If nodes with these shapes are being positioned, only the center anchor is available. Text content of these nodes is simply printed on top of the center of the node. Compare the following example.

3.4 Icons as pics

If the package is loaded with the option pics, every icon is also available as TikZ pic. The names of the pic always start with dnd icons followed by a space and the name of the relevant icon (see the lists above). For abilities, savings, spellschools and damages, additional pics exists where the name has the suffixes ability, saving, spellschool, and damage respectively.

The icon is embedded as a node in the pic which has the name <code>-node</code>. Thus, it is possible to name the pic and refer to the node inside. Due to the fact that the icon is a node, the option 'transform shape' has to be used if transformations on the pic are to affect the node as well. It is easily possible to apply styles to the node using the TikZ option <code>every node</code> as shown in the following example.

```
dnd icons/create pic from shape
dnd icons/create pic from ability shape
dnd icons/create pic from saving shape
dnd icons/create pic from spellschool shape
dnd icons/create pic from damage shape
```

The package defines five TikZ keys that are used to create pics using the relevant node shapes. In normal circumstances, it is not necessary to use these keys. They are mentioned here primarily for reference.

3.5 Boxing of icons

Because the icons cannot simply be used inside tikzpicture environments, the package provides a workaround to place icons inside of boxes for later use. Icons that are boxed this way can safely used inside tikzpicture environments. This might be necessary, if an icon should be used in inline text that sits inside a node.

```
\provideprotecteddndicon{command>}[<style>]{<shape>}[<options>]{<box name>}
```

The command \provideprotecteddndicon creates a box containing the icon that would be created using one of the regular commands this package provides.

 $\provideprotecteddndicon{die}[large]{eightside}[blue, thick]{mybox}, for example, stores the icon of an eight-sided die with the relevant style and TikZ options in a new box named mybox. Note that no integer can be added to the die command in this context.$

```
\useprotecteddndicon{<box name>}
```

Using the command \useprotecteddndicon, the previously defined box can be used to place the relevant icon. With the above definition, \useprotecteddndicon{mybox} would result in

Having created a boxed icon, it is safe to use it, for example, inside a TikZ node:

4 ladraw package variant

A variant of the package that uses the l3draw package instead of the tikz package is loaded by calling \usepackage{dndicons-l3draw} in the preamble of the document. The l3draw package is an experimental package that provides only basic drawing functionality and therefore loads quicker than Ti*k*Z. The l3draw variant thus only supports a certain set of option for styling the icons.

```
compat
```

The dndicons-l3draw package provides the option compat. Since the l3draw package is experimental and macro definitions can change, it can be useful not to use the most current macro definitions that may not yet be available in a local TeX installation. Loading the dndicons-l3draw package with the option compat ensures that only functions are used that are available in the TeX installation prior to the current one.

The commands of the main variant of the package, \die, \ability, \saving, \spell, \spellschool, \damage, \attack and \condition, which are described above have the same functionality and can be used the same way as in the main variant of the package. However, the available options are different and described below in more detail.

4.1 Icon commands

```
\DndIconsUseIcon[<options>][<integer>]{<shape>}
\DndIconsUseIcon*[<options>][<integer>]{<shape>}
```

\DndIconsUseIcon is the primary command to typeset icons using the l3draw variant of the package. The commands \die, \ability, \saving, \spell, \spellschool, \damage, \attack and \condition are based on this command.

The \DndIconsUseIcon command has a starred version and two optional arguments as well as one mandatory argument. The mandatory argument holds the shape of the icon. All shapes that

are described above for the main variant of the package are available. The second optional argument can be used to add an integer when used with shapes for dice.

The starred version of the command is used to fill a frame with color instead of drawing its outline. Frames can be put around the shape via the relevant frame option.

If that the dndicons package is to be loaded together with the dndicons-l3draw package or some other package that already defines one of the above described commands \die, \ability, \saving, \spell, \spellschool, \damage, \attack or \condition, this alternative set of commands can be used. These commands are exact copies of the relevant basic commands and take the same set or arguments.

4.2 Icon options

```
frame
background
color
stroke
fill
line width
scale
rotate
```

The \DndIconsUseIcon command and the commands \die, \ability, \saving, \spell, \spellschool, \damage, \attack and \condition can be used with certain options that each consist of a key-value pair and can be combined. When used with the \DndIconsUseIcon command or the other commands based on this command, these options should be used directly without wrapping them inside the style option.

For example, $\die{eightside}[color=blue, line width=0.8pt]{2} would result in 2 <math>\bigcirc$.

With the frame option, one of four different frames can be selected that are drawn around the shape of the icon. The values ability and damage draw a circle around the shape. The value saving draws a rounded shield and the value spellschool draws an angular shield around the shape. The commands \ability, \saving, \spellschool and \damage make use of the relevant frame.

The background option sets the color of the shape when it is printed over a filled frame which can be achieved by setting the negative option for the \ability or the \spellschool command or using the starred version of the \DndIconsUseIcon command.

The color option sets the color of strokes and fills in general while the stroke option and the fill option set the color only for strokes or fills respectively. The line width sets the line width for strokes. Using the scale and rotate options, the shape can be scaled and rotated.

4.3 Setting options globally

\dndiconsset

Apart from setting the options to the commands directly, it is also possible to set them globally using the \dndiconsset command. Globally set options are overridden by options that are selected directly.

before sep after sep baseline

Similar to the settings of the main variant of the package, the spacing before and after the icons can be set using the options before sep and after sep. The option baseline can be used to adjust the baseline of the icons. These options can also be applied to the icon commands directly.

```
Roll\die{eightside}{}a die!

Roll\Qa die! \dndiconsset{
Roll \Qa die! before sep={1cm}
}
Roll\die{eightside}{}a die!
```

5 Changes

v1.1.0 (2023/08/15)

First public release.

v1.1.1 (2023/11/15)

Fudge dice icon added.

v1.1.2 (2023/11/16)

Bug fixed that caused wrong spacing when using dice icons without quantifier.

v1.2.0 (2023/11/20)

Corrections in the manual. Icons for six-sided dice with one to nine pips, plus sign and minus sign added.

v1.2.1 (2023/11/20)

Documentation of lengths for spacing added.

v1.2.2 (2023/11/21)

Corrections in the manual.

v1.3.0 (2023/11/21)

Option to set background color added. Renamed global option.

v1.3.1 (2024/02/18)

Correction of initializing code. Correction of default value of after sep. Addition of pics.

v1.3.2 (2024/02/19)

Reformatting of the manual.

v1.3.4 (2024/02/20)

Minor corrections of some shapes.

v1.4.0 (2024/02/21)

13draw variant added.

v1.4.1 (2024/02/21)

Corrections in ladraw variant.

v1.4.2 (2024/02/21)

Define alternative set of commands in 13draw variant.

v1.4.3 (2024/02/22)

Added option to l3draw variant to enable upward compatibility.