

The `rule-D` Package

Rule Functions*

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At $\text{\LaTeX}2_\epsilon$ you have command `\rule` to make horizontal and vertical rules and even boxes. Currently there's no L3 command for this. This module provides two new L3 functions for rules. The “-D” in the module name indicates, that currently the implementation uses deprecated functions like `\tex_vrule:D`. Nevertheless, the new rule functions aren't declared to be deprecated.

This package has been made only, because `GS1` needs such rule functions. So maybe it's simply a helper package for `GS1`.

<code>\rule:nn</code>	<code>\rule:nnn {<dimexprraise>} {<dimexprwidth>} {<dimexprheight>}</code>
<code>\rule:nnn</code>	<code>\rule:nn {<dimexprwidth>} {<dimexprheight>}</code>

Draw a rule of width $\langle dimexprwidth \rangle$, height $\langle dimexprheight \rangle$ and raise it by $\langle dimexprraise \rangle$. If the $\langle dimexprraise \rangle$ has not been given, the rule will be drawn at the base line.

1 `rule-D` implementation

First of all we have to setup package information:

```
1 \ProvidesExplPackage
2   {rule-D} {\ExplFileDate} {\ExplFileVersion}
3   {experimental~L3~rule~functions}
```

We need the stable kernel of L3:

```
4 \RequirePackage{expl3}
```

```

\color{red}\rule:nn
\rule:nnn
5 \cs_new:Npn \rule:nn #1#2
6   {
7     \rule:nnn { \c_zero_dim } { #1 } { #2 }
8   }
9 \cs_new:Npn \rule:nnn #1#2#3
10  {
11    \leavevmode
```

*This file describes v3, last revised 2012/07/27.

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```

12   \hbox:n
13   {
14       \tex_vrule:D width \dim_eval:n { #2 }
15                       height \dim_eval:n { #1 + #3 }
16                       depth -\dim_eval:n { #1 }
17   }
18 }

```

(End definition for \rule:nn and \rule:nnn These functions are documented on page ??.)

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