

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`.

```
\rule:nn \rule:nnn <dimexprraise> <dimexprwidth> <dimexprheight>
\rule:nnn \rule:nn <dimexprwidth> <dimexprheight>
```

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}
```

```
\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 v15, last revised 2012/08/27.

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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 ??.)

Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

	C		L
\c_zero_dim	0	\leavevmode	0
\cs_new:Npn	0, 0		
	D		P
\dim_eval:n	0, 0, 0	\ProvidesExplPackage	0
	E		R
\ExplFileDate	0	\RequirePackage	0
\ExplFileVersion	0	\rule:nn	0, <u>1</u> , <u>1</u>
	H	\rule:nnn	0, 0, <u>1</u>
\hbox:n	0		T
		\tex_vrule:D	0