

# The **l3pdfxform** module

## Commands for form XObjects

### L<sup>A</sup>T<sub>E</sub>X PDF management testphase bundle

The L<sup>A</sup>T<sub>E</sub>X Project\*

Version 0.95a, released 2021-02-22

## 1 l3pdfxform documentation

This module contains a number of commands to create “form XObjects”, for which pdfT<sub>E</sub>X introduced the short name “xforms”.

The status is still beta, so the style itself is currently named **l3pdfxform-beta**. Missing is for example code for the dvips route. Probably some of the function will also need to be enhanced by hooks.

<hr/>	<hr/>
<code>\pdfxform_new:nnn</code>	<code>\pdfxform_new:nnn {&lt;name&gt;} {&lt;attributes&gt;} {&lt;content&gt;}</code>
New: 2019-08-05	This command create a new form XObject that can be used as appearance or directly later. If the <i>&lt;content&gt;</i> contains BDC-marks it should <i>not</i> be given as a previously typeset box, but directly so that the names of the BDC-marks can be added to the resources of the xform. The xform will automatically include the resources of the current page. The content will be typeset in a hbox. With pdf <sub>l</sub> atex and luatex the surrounding color is <i>not</i> stored in the form XObject but should be if wanted added e.g. with <code>\color_select:n{.}</code> . This keeps the option of color injection open.
Updated: 2021-02-14	
<hr/>	<hr/>
<code>\pdfxform_use:n</code>	<code>\pdfxform_use:n {&lt;name&gt;}</code>
New: 2019-08-05	This command uses (typesets) a previously created form XObject. If the surrounding color is different, it is injected in the form XObject with the engines pdf <sub>l</sub> tex or luatex.
<hr/>	<hr/>
<code>\pdfxform_ref:n *</code>	<code>\pdfxform_ref:n {&lt;name&gt;}</code>
New: 2019-08-05	Inserts the appropriate information to reference the xform <i>&lt;name&gt;</i> in for example appearance dictionaries.
<hr/>	<hr/>
<code>\pdfxform_wd:n *</code>	<code>\pdfxform_wd:n {&lt;name&gt;}</code>
<code>\pdfxform_ht:n *</code>	These command give back the sizes of the form XObject. The values are stored in tl-variables with the unit pt and not in dimensions!
<code>\pdfxform_dp:n *</code>	
New: 2019-08-05	

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<code>\pdfxform_if_exist_p:n *</code> <code>\pdfxform_if_exist:nTF *</code>	<code>\pdfxform_if_exist_p:n {&lt;name&gt;}</code> <code>\pdfxform_if_exist:NTF &lt;name&gt; {&lt;true code&gt;} {&lt;false code&gt;}</code>
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New: 2020-04-29

These command tests if an xform with name `{<name>}` has been already defined.

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## 2 l3pdfxform implementation

```

1 <@@=pdf>
2 <*header>
3 \ProvidesExplPackage {l3pdfxform-beta} {2021-02-22} {0.95a}
4 {command to create xforms (beta)---LaTeX PDF management testphase bundle}
5 </header>

```

### 2.1 FormXObject (pdfxform)

`\pdfxform_new:nnn`

```

6 <*package>
7 \cs_new_protected:Npn \pdfxform_new:nnn #1 #2 #3
8 {
9   \__pdf_backend_xform_new:nnnn { #1 } { #2 } { } { #3 }
10 }

```

*(End definition for \pdfxform\_new:nnn. This function is documented on page 1.)*

`\pdfxform_use:n`

```

11 \cs_new_protected:Npn \pdfxform_use:n #1
12 {
13   \__pdf_backend_xform_use:n { #1 }
14 }

```

*(End definition for \pdfxform\_use:n. This function is documented on page 1.)*

`\pdfxform_ref:n`

`\pdfxform_ref:o`

```

15 % expansion?
16 \cs_new:Npn \pdfxform_ref:n #1
17 {
18   \__pdf_backend_xform_ref:n { #1 }
19 }
20
21 \cs_generate_variant:Nn \pdfxform_ref:n {o}

```

*(End definition for \pdfxform\_ref:n. This function is documented on page 1.)*

`\pdfxform_wd:n`

`\pdfxform_ht:n`

`\pdfxform_dp:n`

```

22 \cs_new:Npn \pdfxform_wd:n #1
23 {
24   \tl_use:c { c__pdf_backend_xform_wd_ \tl_to_str:n { #1 } _tl }
25 }
26
27 \cs_new:Npn \pdfxform_ht:n #1
28 {
29   \tl_use:c { c__pdf_backend_xform_ht_ \tl_to_str:n { #1 } _tl }
30 }
31

```

```

32 \cs_new:Npn \pdfxform_dp:n #1
33 {
34   \tl_use:c { c__pdf_backend_xform_dp_ \tl_to_str:n { #1 } _tl }
35 }

```

(End definition for `\pdfxform_wd:n`, `\pdfxform_ht:n`, and `\pdfxform_dp:n`. These functions are documented on page [1](#).)

```

36 \endpackage

```

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