

The **l3pdfxform** module

Commands for form XObjects

L^AT_EX PDF management testphase bundle

The L^AT_EX Project*

Version 0.95e, released 2021-06-14

1 l3pdfxform documentation

This module contains a number of commands to create “form XObjects”, for which pdfT_EX 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 {<name>} {<attributes>} {<content>}</code>
New: 2019-08-05	This command create a new form XObject that can be used as appearance or directly later. If the <i><content></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 _l 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 {<name>}</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 _l tex or luatex.
<hr/>	<hr/>
<code>\pdfxform_ref:n *</code>	<code>\pdfxform_ref:n {<name>}</code>
New: 2019-08-05	Inserts the appropriate information to reference the xform <i><name></i> in for example appearance dictionaries.
<hr/>	<hr/>
<code>\pdfxform_wd:n *</code>	<code>\pdfxform_wd:n {<name>}</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	

*E-mail: latex-team@latex-project.org

<code>\pdfxform_if_exist_p:n *</code> <code>\pdfxform_if_exist:nTF *</code>	<code>\pdfxform_if_exist_p:n {<name>}</code> <code>\pdfxform_if_exist:NTF <name> {<true code>} {<false code>}</code>
--	---

New: 2020-04-29

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

2 l3pdfxform implementation

```

1 <@@=pdf>
2 <*header>
3 \ProvidesExplPackage{l3pdfxform}{2021-06-14}{0.95e}
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

```

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		
cs commands:		<code>\pdfxform_if_exist:NTF</code> 2
<code>\cs_generate_variant:Nn</code> 21		<code>\pdfxform_if_exist:nTF</code> 2
<code>\cs_new:Npn</code> 16 , 22 , 27 , 32		<code>\pdfxform_if_exist_p:n</code> 2
<code>\cs_new_protected:Npn</code> 7 , 11		<code>\pdfxform_new:nnn</code> 1 , 6 , 7
		<code>\pdfxform_ref:n</code> 1 , 15 , 16 , 21
P		<code>\pdfxform_use:n</code> 1 , 11 , 11
pdf internal commands:		<code>\pdfxform_wd:n</code> 1 , 22 , 22
<code>__pdf_backend_xform_new:nnnn</code> 9		<code>\ProvidesExplPackage</code> 3
<code>__pdf_backend_xform_ref:n</code> 18		
<code>__pdf_backend_xform_use:n</code> 13		T
pdfxform commands:		tl commands:
<code>\pdfxform_dp:n</code> 1 , 22 , 32		<code>\tl_to_str:n</code> 24 , 29 , 34
<code>\pdfxform_ht:n</code> 1 , 22 , 27		<code>\tl_use:N</code> 24 , 29 , 34