The l3pdfxform module
Commands for form XObjects
LATEX PDF management testphase bundle

The LATEX Project*

Version 0.95c, released 2021-03-17

1 l3pdfxform documentation

This module contains a number of commands to create "form XObjects", for which pdfTEX 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.

\pdfxform_new:nnn   \pdfxform_new:nnn {⟨name⟩} {⟨attributes⟩} {⟨content⟩}

New: 2019-08-05
Updated: 2021-02-14

This command create a new form XObject that can be used as appearance or directly later. If the ⟨*content*⟩ contains BDC-marks it should *not* 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 pdflatex and luatex the surrounding color is *not* stored in the form XObject but should be if wanted added e.g. with \color_select:n{.}. This keeps the option of color injection open.

\pdfxform_use:n   \pdfxform_use:n {⟨name⟩}

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 pdftex or luatex.

\pdfxform_ref:n ⋆   \pdfxform_ref:n {⟨name⟩}

New: 2019-08-05

Inserts the appropriate information to reference the xform ⟨*name*⟩ in for example appearance dictionaries.

\pdfxform_wd:n ⋆
\pdfxform_ht:n ⋆
\pdfxform_dp:n ⋆

\pdfxform_wd:n {⟨name⟩}

New: 2019-08-05

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!

---

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

\pdfxform_if_exist_p:n {⟨*name*⟩}
\pdfxform_if_exist:NTF ⟨*name*⟩ {⟨*true code*⟩} {⟨*false code*⟩}

These command tests if an xform with name {⟨*name*⟩} has been already defined.

2 l3pdfxform implementation

```
1 ⟨@@=pdf⟩
2 ⟨*header⟩
3 \ProvidesExplPackage{l3pdfxform}{2021-03-17}{0.95c}
4   {command to create xforms (beta)---LaTeX PDF management testphase bundle}
5 ⟨/header⟩
```

2.1 Form XObject (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 ⟨/package⟩
```

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.