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

The LaTeX Project[*]

Version 0.96d, released 2023-12-09

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. The dvips route is now better supported but there are open issues if landscape pages are involved or if the objects are larger than the page. With dvips the creation of a form involves typesetting and so can affect spacing.

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⟩}

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!

New: 2019-08-05

---

[*]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}{2023-12-09}{0.96d}`
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 of 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 of 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 of 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 of definition for* \pdfxform_wd:n *,* \pdfxform_ht:n *, and* \pdfxform_dp:n*. These functions are documented on page 1.*)

\pdfxform_if_exist_p:n
\pdfxform_if_exist:nTF
The command is defined in the backend (to avoid timing problems).

(*End of definition for* \pdfxform_if_exist:nTF*. This function is documented on page 2.*)

```
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.