stmhyperref package description

Copyright © 2024 DLR SY STM
v20240116

Martin Rädel

2024-01-16

This package takes care of handling cross-referencing in LaTeX documents with hypertext links. It loads the underlying base package and offers a modular collection of styles for the representation of hyperlinks. It is build upon the hyperref package.

Contents

1. Usage

1.1. Load the whole `stmhyperref` package

1.1.1. Description

This is an interface package which loads the base package and the style choice.

    By default the package loads

- `stmhyperrefbase.sty`
- `stmhyperrefpdfopts.sty`
- `stmhyperrefstyles.sty`

See subsubsection 1.1.2 for options to change the default package behavior.

1.1.2. Options

Option *styles*   This is a boolean option. Expected values are either `true` or `false`. It controls whether to load the predefined styles.

`\usepackage[styles=true|false]{stmhyperref}`

  `styles=true` is the default. It is used in case `styles=false` is not set explicitly.

Option *style*   This option value is the equivalent to section 1.3.2 and is passed through to the underlying package.

Option *pdfopts*   This is a boolean option. Expected values are either `true` or `false`. It controls whether to load the predefined pdf view option sets.

`\usepackage[pdfopts=true|false]{stmhyperref}`

  `pdfopts=true` is the default. It is used in case `pdfopts=false` is not set explicitly.

Option *pdfopt*   This option value is the equivalent to section 1.4.2 and is passed through to the underlying package.

1.2. `stmhyperrefbase`

This package loads the underlying base package with some default options that can only be set during initialization.

1.3. stmhyperrefstyles

1.3.1. Description

This package contains styles for the optical behaviour of internal and external links. Internal links are those inside the document, e.g. references and citations. External links are those to URL's.

1.3.2. Options

Option *style* This is a string option. A list of possible values is shown in section 2.

`\usepackage[style=stmdefault]{stmhyperrefstyles}`

`style=stmdefault` is the default. It is used in case no other style is set explicitly.

1.4. stmhyperrefpdfopts

1.4.1. Description

This package contains definitions how to display the resulting document at opening in the viewer.

1.4.2. Options

This is a string option. A list of possible values is listed in section 3.

`\usepackage[pdfopt=stmdefault]{stmhyperrefpdfopts}`

`style=stmdefault` is the default. It is used in case no other style is set explicitly. A list of possible values is shown in section 3.

2. Styles

There are different predefined styles available to format your hypertext.

2.1. `default`

This loads the default style from the underlying base package and does not apply individual styles.

2.2. `stmdefault`

This loads the color definitions for links, citations and URL's from the `stmcolor` package and applies them.

2.3. `colorlinkexternalblueinternalblack`

Please take the style information directly from appendix A.4.

2.4. `colorlinkallblack`

Please take the style information directly from appendix A.4.

2.5. `colorlinkallblue`

Please take the style information directly from appendix A.4.

3. `pdfopt` sets

There are different predefined options sets available to configure the pdf view settings.

3.1. `default`

Please take the style information directly from appendix A.3.

3.2. `stmdefault`

Please take the style information directly from appendix A.3.

3.3. `viewfitwmenuwtoolbarwobookmarksopen`

Please take the style information directly from appendix A.3.

A. The code

A.1. stmhyperref.sty

```
1  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2  % Header                        %
3  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4  %
5  % This file includes hyperref setup
6  % Based upon the hyperref package:
7  %    https://ctan.org/pkg/hyperref
8  %
9  % Usage
10 %  - Preamble:
11 %    - \usepackage{stmhyperref}
12 %
13 % Revisions: 2019-10-27 Martin Raedel <martin.raedel@dlr.de>
14 %                      Initial draft
15 %
16 % Contact:   Martin Raedel,  martin.raedel@dlr.de
17 %            DLR Lightweight Systems
18 %
19 %                                 __/|__
20 %                                /_/_/_/
21 %            www.dlr.de/sy/en       |/ DLR
22 %
23 % Copyright (C) 2019-... DLR Lightweight Systems
24 %
25 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
26 % Content                        %
27 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
28
29 % Declare that this style file requires at least LaTeX version 2e.
30 \NeedsTeXFormat{LaTeX2e}
31
32 % Provide the name of your page, the date it was last updated, and a
       comment about what it's used for
33 \ProvidesPackage{stmhyperref}[2023/02/12 STMs hyperref setup definitions]
34
35 % ---------------------------
36 % Options
37 % ---------------------------
38
39 % For options
```

```
40  \@ifpackageloaded{kvoptions}{}{\RequirePackage{kvoptions}}%
41
42  % Option group
43  \SetupKeyvalOptions{%
44    family=stmhyperref,%
45    prefix=stmhyperref@,%
46    setkeys=\kvsetkeys,%
47  }
48
49  % Load styles
50  \DeclareBoolOption[true]{styles}
51
52  % Apply style name
53  \DeclareStringOption[stmdefault]{style}
54
55  % Load styles
56  \DeclareBoolOption[true]{pdfopts}
57
58  % Apply style name
59  \DeclareStringOption[stmdefault]{pdfopt}
60
61  % Process options
62  \ProcessKeyvalOptions{stmhyperref}
63
64  % --------------------------
65  % Modules
66  % --------------------------
67
68  % Load the base package
69  \@ifpackageloaded{hyperref}{}{%
70    \RequirePackage{stmhyperrefbase}
71  }%
72
73  % Load the styles
74  \ifstmhyperref@styles
75    \@ifpackageloaded{stmhyperrefstyles}{}{%
76      \RequirePackage[
77        style=\stmhyperref@style
78      ]{stmhyperrefstyles}%
79    }%
80  \fi
81
82  % Load the styles
83  \ifstmhyperref@pdfopts
```

```
84    \@ifpackageloaded{stmhyperrefpdfopts}{}{%
85      \RequirePackage[
86        style=\stmhyperref@pdfopt
87      ]{stmhyperrefpdfopts}%
88    }%
89  \fi
90
91  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
92  % That's it                       %
93  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
94
95  % Finally, we'll use \endinput to indicate that LaTeX can stop reading
          this file. LaTeX will ignore anything after this line.
96  \endinput
```

A.2. stmhyperrefbase.sty

```
1   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2   % Header                          %
3   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4   %
5   % This file includes hyperref setup
6   % Based upon the hyperref package:
7   %   https://ctan.org/pkg/hyperref
8   %
9   % Usage
10  %  - Preamble:
11  %    - \usepackage{stmhyperrefbase}
12  %
13  % Revisions: 2019-10-27 Martin Raedel <martin.raedel@dlr.de>
14  %                       Initial draft
15  %
16  % Contact:   Martin Raedel,  martin.raedel@dlr.de
17  %            DLR Lightweight Systems
18  %
19  %                               __/|__
20  %                              /_/_/_/
21  %            www.dlr.de/sy/en       |/ DLR
22  %
23  % Copyright (C) 2019-... DLR Lightweight Systems
24  %
25  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
26  % Content                         %
27  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
28
29  % Declare that this style file requires at least LaTeX version 2e.
30  \NeedsTeXFormat{LaTeX2e}
31
32  % Provide the name of your page, the date it was last updated, and a
        comment about what it's used for
33  \ProvidesPackage{stmhyperrefbase}[2023/02/12 STMs base hyperref package]
34
35  % -------------------------
36  % Package
37  % -------------------------
38
39  \@ifpackageloaded{hyperref}{
40    %\PackageWarning{stmhyperrefbase}{Hyperref package was already loaded!}
41  }{%
42    % These options must be set at the time of \usepackage and can not be
        set using \hypersetup
43    \PassOptionsToPackage{%
44      bookmarks = true,
45      pdfusetitle,%
46    }{hyperref}
47    %
48    \RequirePackage{hyperref}
49  }%
50
51  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
52  % That's it                     %
53  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
54
55  % Finally, we'll use \endinput to indicate that LaTeX can stop reading
        this file. LaTeX will ignore anything after this line.
56  \endinput
```

A.3. `stmhyperrefpdfopts.sty`

```
1  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2  % Header                          %
3  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4  %
5  % This file includes hyperref setup
6  % Based upon the hyperref package:
7  %   https://ctan.org/pkg/hyperref
8  %
9  % Usage
```

```
10  %  - Preamble:
11  %    - \usepackage{hyperrefpdfopts}
12  %
13  % Revisions: 2019-10-27 Martin Raedel <martin.raedel@dlr.de>
14  %                       Initial draft
15  %
16  % Contact:   Martin Raedel,  martin.raedel@dlr.de
17  %            DLR Lightweight Systems
18  %
19  %                              __/|__
20  %                             /_/_/_/
21  %            www.dlr.de/sy/en      |/ DLR
22  %
23  % Copyright (C) 2019-... DLR Lightweight Systems
24  %
25  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
26  % Content                            %
27  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
28
29  % Declare that this style file requires at least LaTeX version 2e.
30  \NeedsTeXFormat{LaTeX2e}
31
32  % Provide the name of your page, the date it was last updated, and a
       comment about what it's used for
33  \ProvidesPackage{stmhyperrefpdfopts}[2023/02/12 STMs hyperref setup
       definitions]
34
35  % --------------------------
36  % Options
37  % --------------------------
38
39  % For options
40  \@ifpackageloaded{kvoptions}{}{\RequirePackage{kvoptions}}%
41
42  \SetupKeyvalOptions{%
43    family=stmhyperrefpdfopts,%
44    prefix=stmhyperrefpdfopts@,%
45    setkeys=\kvsetkeys,%
46  }
47
48  % Style name
49  \DeclareStringOption[stmdefault]{style}
50
51  % Process options
```

```latex
52  \ProcessKeyvalOptions{stmhyperrefpdfopts}
53
54  % -------------------------
55  % Style
56  % -------------------------
57
58  \@namedef{stmhyperrefpdfopts@style@default}{%
59    % This here is empty to load the standard hyperref setup
60  }
61
62  \@namedef{stmhyperrefpdfopts@style@stmdefault}{%
63    \hypersetup{%
64      pdfstartview  = Fit,%
65      pdfmenubar    = true,%
66      pdftoolbar    = true,%
67      bookmarksopen = false,%
68    }%
69  }
70
71  \@namedef{stmhyperrefpdfopts@style@viewfitwmenuwtoolbarwobookmarksopen}{%
72    \hypersetup{%
73      pdfstartview  = Fit,%
74      pdfmenubar    = true,%
75      pdftoolbar    = true,%
76      bookmarksopen = false,%
77    }%
78  }
79
80  % Evaluate option settings
81  % https://tex.stackexchange.com/a/249102
82  \newcommand*{\stmhyperrefpdfopts@evaluate}[1]{%
83    % Check, if option value in \<prefix>@<option> exists
84    \@ifundefined{stmhyperrefpdfopts@#1}{%
85      % Should not happen
86      \PackageError{stmhyperrefpdfopts}{Evaluating unknown option '#1'}\
87      @ehc
88    }{%
89      % Check, if there is an implementation for the value of the option
90      % in macro \<prefix>@<option>@<value>
91      \@ifundefined{stmhyperrefpdfopts@#1@\csname stmhyperrefpdfopts@#1\
92      endcsname}{%
93        \PackageError{stmhyperrefpdfopts}{%
94          Unknown option setting: #1=%
95          \csname stmhyperrefpdfopts@#1\endcsname
```

```
 94        }\@ehc
 95      }{%
 96        % Call the implementation for the value
 97        \csname stmhyperrefpdfopts@#1@%
 98              \csname stmhyperrefpdfopts@#1\endcsname
 99        \endcsname
100        \relax
101      }%
102    }%
103  }
104
105  \stmhyperrefpdfopts@evaluate{style}
106
107  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
108  % That's it                      %
109  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
110
111  % Finally, we'll use \endinput to indicate that LaTeX can stop reading
          this file. LaTeX will ignore anything after this line.
112  \endinput
```

A.4. `stmhyperrefstyles.sty`

```
 1  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
 2  % Header                         %
 3  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
 4  %
 5  % This file includes hyperref setup
 6  % Based upon the hyperref package:
 7  %   https://ctan.org/pkg/hyperref
 8  %
 9  % Usage
10  %  - Preamble:
11  %    - \usepackage{stmhyperrefstyles}
12  %
13  % Revisions: 2019-10-27 Martin Raedel <martin.raedel@dlr.de>
14  %                       Initial draft
15  %
16  % Contact:   Martin Raedel,  martin.raedel@dlr.de
17  %            DLR Lightweight Systems
18  %
19  %                                __/|__
20  %                               /_/_/_/
21  %            www.dlr.de/sy/en      |/ DLR
```

```latex
22 %
23 % Copyright (C) 2019-... DLR Lightweight Systems
24 %
25 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
26 % Content                        %
27 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
28
29 % Declare that this style file requires at least LaTeX version 2e.
30 \NeedsTeXFormat{LaTeX2e}
31
32 % Provide the name of your page, the date it was last updated, and a
      comment about what it's used for
33 \ProvidesPackage{stmhyperrefstyles}[2023/02/12 STMs hyperref style
      definitions]
34
35 % -------------------------
36 % Options
37 % -------------------------
38
39 % For options
40 \@ifpackageloaded{kvoptions}{}{\RequirePackage{kvoptions}}%
41
42 \SetupKeyvalOptions{%
43   family=stmhyperrefstyles,%
44   prefix=stmhyperrefstyles@,%
45   setkeys=\kvsetkeys,%
46 }
47
48 % Style name
49 \DeclareStringOption[stmdefault]{style}
50
51 % Process options
52 \ProcessKeyvalOptions{stmhyperrefstyles}
53
54 % -------------------------
55 % Style
56 % -------------------------
57
58 \@namedef{stmhyperrefstyles@style@default}{%
59   % This here is empty to load the standard hyperref setup
60 }
61
62 \@namedef{stmhyperrefstyles@style@colorlinkexternalblueinternalblack}{%
63   \hypersetup{%
```

```
64      colorlinks    = true,%  Color text instead of boxes
65      linkcolor     = black,% Color of internal links
66      citecolor     = black,% Color of citations
67      urlcolor      = blue,%  Color of external urls
68    }%
69  }
70
71  \@namedef{stmhyperrefstyles@style@stmdefault}{%
72    \@ifpackageloaded{stmcolor}{}{\RequirePackage{stmcolors}}%
73    \hypersetup{%
74      colorlinks    = true,%  Color text instead of boxes
75      linkcolor     = hyperrefstmtylelinkcolor,% Color of internal links
76      citecolor     = hyperrefstmtylecitecolor,% Color of citations
77      urlcolor      = hyperrefstmtyleurlcolor,%  Color of external urls
78    }%
79  }
80
81  \@namedef{stmhyperrefstyles@style@colorlinkallblack}{%
82    \hypersetup{%
83      colorlinks    = true,% Color text instead of boxes
84      linkcolor     = black,% Color of internal links
85      citecolor     = black,% Color of citations
86      urlcolor      = black,% Color of external urls
87    }
88  }
89
90  \@namedef{stmhyperrefstyles@style@colorlinkallblue}{%
91    \hypersetup{%
92      colorlinks    = true,% Color text instead of boxes
93      linkcolor     = blue,% Color of internal links
94      citecolor     = blue,% Color of citations
95      urlcolor      = blue,% Color of external urls
96    }
97  }
98
99  % Evaluate option settings
100 % https://tex.stackexchange.com/a/249102
101 \newcommand*{\stmhyperrefstyles@evaluate}[1]{%
102   % Check, if option value in \<prefix>@<option> exists
103   \@ifundefined{stmhyperrefstyles@#1}{%
104     % Should not happen
105     \PackageError{stmhyperrefstyles}{Evaluating unknown option '#1'}\@ehc
106   }{%
107     % Check, if there is an implementation for the value of the option
```

```latex
108        % in macro \<prefix>@<option>@<value>
109        \@ifundefined{stmhyperrefstyles@#1@\csname stmhyperrefstyles@#1\
      endcsname}{%
110          \PackageError{stmhyperrefstyles}{%
111            Unknown option setting: #1=%
112            \csname stmhyperrefstyles@#1\endcsname
113          }\@ehc
114        }{%
115          % Call the implementation for the value
116          \csname stmhyperrefstyles@#1@%
117                  \csname stmhyperrefstyles@#1\endcsname
118          \endcsname
119          \relax
120        }%
121     }%
122  }
123
124  \stmhyperrefstyles@evaluate{style}
125
126  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
127  % That's it                        %
128  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
129
130  % Finally, we'll use \endinput to indicate that LaTeX can stop reading
      this file. LaTeX will ignore anything after this line.
131  \endinput
```