MathHub Support for sTeX*

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Abstract

The `sref` package is part of the sTeX collection, a version of TeX/LaTeX that allows to markup TeX/LaTeX documents semantically without leaving the document format, essentially turning TeX/LaTeX into a document format for mathematical knowledge management (MKM).

The `mathhub` packages extend sTeX with support for MathHub file system layout, which has co-eveolved with the MathHub.info portal for active documents, but is useful for organizing collections of sTeX documents in its own right.

Contents

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*Version ? (last revised ?)

1 Introduction

As sTEX files tend to be highly interlinked semantically one of the most important practical problems to solve for managing larger collections is the management of (relative or absolute) paths. The `mathhub` package provides an infrastructure for supporting a regular ⇝ manageable file system layout schema that has co-eveolved with the MathHub.info portal for active documents, but is useful for organizing collections of sTEX documents in its own right. In particular, since the layout scheme is supported by the `lmh` tool (local mathhub) [**lmh:on**], which automates many management tasks.

MathHub (`http://MathHub.info`), is a portal and archive for flexiformal mathematics. It hosts much of the sTEX content MathHub on GIT repositories (public and private escrow) for mathematical documentation projects. MathHub supports online and offline (via `lmh`) authoring and document development infrastructure, and a rich, interactive reading interface.

The **MathHub file system layout** has a **MathHub root folder** (e.g. `~/localmh/MathHub`) which contains all sTEX sources. These are organized in a two-level folder system that is compatible by GIT repository managers like GitHub [GH] and GitLab [GL]. Even though it is not necessary for the `mathhub` package we will assume that these are GIT repositories, which have names of the form $\langle group\rangle/\langle repo\rangle$, where $\langle group\rangle$ is a MathHub-unique repository group and $\langle repo\rangle$ a repository name that is $\langle group\rangle$-unique. The file and directory structure of a repository is arbitrary – except that it starts with the directory `source` because they are Math Archives in the sense of [Hor+11]. But this structure can be hidden from the sTEX author with MathHub-enabled versions of the sTEX macros (let's call them **mh-variants**), which are defined in the `mh`-packages of the `mathhub` bundle, which we document in this manual.

[1]

2 The User Interface

2.1 Package Options

none so far

2.2 `mathhub.sty`: General Infrastructure

Generally, the TEXformatter `pdflatex` needs to know the file system paths of the referenced sTEX files: usually long relative paths. The `pathsuris` package [**ZhaKoh:pus:ctan**] from the sTEX bundle makes this somewhat more palatable by supplying the `\defpath` macro, which we can use to set the MathHub root path, e.g. by `\defpath{MathHub}{/user/foo/localmh/MathHub}` (we will assume this setting for all examples below).

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[1]EdNote: document lmh here, how to install, what it does (build system)

The next information needed for referencing in the MathHub file system layout is the repository of the referencing file and that of the referenced one. The latter will be part of the mh-variants of the referencing commands introduced below, the \mhcurrentrepos former, can be declared by the \mhcurrentrepos macro relative to the MathHub root path. Thus a typical top-level sTeX file will have lines like the following in the preamble:

```
\defpath{MathHub}{/user/foo/localmh/MathHub}
\mhcurrentrepos{group/repos}
```

They declare that it resides at the path /user/foo/localmh/MathHub/group/repos and declares the MathHub root path. But this fixed declaration makes the sTeX files less mobile, therefore it is a better idea to externalize these declarations into an external file (usually called localpaths.tex that is not under GIT control since it contains system-specific path information) and \input that in the sTeX file instead. Indeed lmh can generate these files automatically, which simplifies the management significantly.

Given a systematic grouping in the MathHub file layout scheme, sTeX files in the same repository (and often even in the same group) share much of the preamble material. Thus it makes sense to centralize that in external (shared) files and situate it at the group and repository levels: at the group level. Fort the group level, the MathHub file system layout uses a specical repository ⟨group⟩/meta-inf/lib and at the repository level we use ⟨group⟩/⟨repos⟩/lib for such files. The \libinput \libinput macro supports this practice: \libinput{⟨filename⟩} macro inputs the files ⟨group⟩/meta-inf/lib/⟨filename⟩ and then ⟨group⟩/⟨repos⟩/lib/⟨filename⟩ if they exist. Thus a typical top-level sTeX file has the following lines in the preamble:

```
\input{localpaths}
\libinput{preamble}
```

\libusepackage The \libusepackage is analogous. [2]

2.3 omdoc--mh.sty: MH Document Infrastructure

\addmhbibresource The \addmhbibresource macro is a variant of \addbibresource from bibLaTeX with repository support. Concretely, \addmhbibresource[⟨repos⟩]{⟨path⟩} expands to \addbibresource{⟨MathHub⟩/⟨reponame⟩/⟨path⟩}, where ⟨reponame⟩ is ⟨repo⟩ if that is non-empty and the current repository else. Note that in contrast to the other MH variants, this does not add the /source/ into the path, since bibTeX files are often put into the lib directory parallel to source.

2.4 modules-mh.sty: MH Variants for Modules

\importmhmodule The \importmhmodule macro is a variant of \importmodule with repository sup-

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[2]EDNOTE: explain the pre.tex and post.tex setup for sTeX modules (see the omdoc package)

port. Instead of writing

```
\importmodule[load=\MathHub{fooMH/bar/source/baz/foobar}]{foobar}
```

we can simply write (assuming that `\MathHub` is defined as above)

```
\importmhmodule[repos=fooMH/bar,path=baz/foobar]{foobar}
```

Note that the `\importmhmodule` form is more semantic, which allows more advanced document management features in MathHub.

If `baz/foobar` is the "current module", i.e. if we are on the MathHub path `...MathHub/fooMH/bar...`, then stating the repository in the first optional argument is redundant, so we can just use

```
\importmhmodule[path=baz/foobar]{foobar}
```

if no file needs to loaded, `\importmhmodule` is the same as `\importmodule`.

Of course, neither LaTeX nor LaTeXMLknow about the repositories when they are called from a file system, so we can use the `\mhcurrentrepos` macro to tell them. But this is only needed to initialize the infrastructure in the driver file. In particular, we do not need to set it in in each module, since the `\importmhmodule` macro sets the current repository automatically.

\mhcurrentrepos

The `\usemhmodule` is the analog to `\usemodule`.

\usemhmodule
\mhinputref
\mhinput

For this, the `modules` package supplies the mh-variants `\mhinputref` and `\mhinput` of the `\inputref` macro introduced above and normal LaTeX `\input` macro.

Caveat if you want to use the MathHub support macros, then every time a module is imported or a document fragment is included from another repos, the mh-variant `\importmhmodule` must be used, so that the "current repository" is set accordingly. To be exact, we only need to use mh-variants, if the imported module or included document fragment use mh-variants.

2.5 `omtext-mh.sty`: MH Variants for OMText

\mhcgraphics

The `\mhcgraphics` macro is a variant of `\mycgraphics` with repository support. Instead of writing

```
\mycgraphics{\MathHub{fooMH/bar/source/baz/foobar}}
```

we can simply write (assuming that `\MathHub` is defined as above)

```
\mhcgraphics[fooMH/bar]{baz/foobar}
```

Note that the `\mhcgraphics` form is more semantic, which allows more advanced document management features in MathHub.

2.6 `smultiling-mh.sty`: MH Variants for Multilinguality

EdN:3
EdN:4

^{3 4}

2.7 `structview-mh.sty`: MH Variants for Structures and Views

EdN:5

⁵

2.8 **mikoslides-mh.sty**: Support for MiKo Slides

\mhframeimage   The `\mhframeimage` macro is a variant of `\frameimage` with repository support.
Instead of writing

```
\frameimage{\MathHub{fooMH/bar/source/baz/foobar}}
```

we can simply write (assuming that `\MathHub` is defined as above)

```
\mhframeimage[fooMH/bar]{baz/foobar}
```

Note that the `\mhframeimage` form is more semantic, which allows more advanced document management features in MathHub.

If `baz/foobar` is the "current module", i.e. if we are on the MathHub path ...`MathHub/fooMH/bar`..., then stating the repository in the first optional argument is redundant, so we can just use

```
\mhframeimage{baz/foobar}
```

If we want to transclude a the contents of a file as a note, we can use the
\mhinputref*   `\mhinputref*` macro: `\mhinputref*[foo]{bar}` is equivalent to

```
\begin{note}
\mhinputref[foo]{bar}
\end{note}
```

2.9 **problem-mh.sty**: Support for Problems

\includemhproblem   The `\includemhproblem` macro is a variant of `\includeproblem` with repository
support. Instead of writing

```
\includeproblem[pts=7]{\MathHub{fooMH/bar/source/baz/foobar}}
```

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³EdNote: needs to be documented
⁴EdNote: mhmodsig seems to be missing what happened?
⁵EdNote: needs to be documented

we can simply write (assuming that `\MathHub` is defined as above)

```
\includemhproblem[mhrepos=fooMH/bar,pts=7]{baz/foobar}
```

Note that the `\importmhproblem` form is more semantic, which allows more advanced document management features in MathHub.

2.10   **hwexam-mh.sty**: Support for Assignments

`\includemhassignment`   The `\includemhassignment` macro is a variant of `\includeassignment` with repository support. Instead of writing

```
\includeassignment[number=3]{\MathHub{fooMH/bar/source/baz/foobar}}
```

we can simply write (assuming that `\MathHub` is defined as above)

```
\includemhassignment[mhrepos=fooMH/bar,number=3]{baz/foobar}
```

2.11   **lstmh.sty**: Support for Listings

`\lstinputmhlisting`   The `\lstinputmhlisting` macro is a variant of `\lstinputlisting` with repository support. Instead of writing

```
\lstinputlisting[language=XML]{\MathHub{fooMH/bar/source/baz/foobar.xml}}
```

we can simply write (assuming that `\MathHub` is defined as above)

```
\lstinputmhlisting[mhrepos=fooMH/bar,language=XML]{baz/foobar.xml}
```

3   Limitations

In this section we document known limitations. If you want to help alleviate them, please feel free to contact the package author. Some of them are currently discussed in the sTeX GitHub repository [sTeX].

1. none reported yet.

4 Implementation

We need to set up the packages by requiring the `metakeys` package [Koh16] to be loaded (in the right version).

```
1 ⟨*package⟩
2 \RequirePackage{keyval}
```

4.1 `mathhub.sty`: General Infrastructure

`\mhcurrentrepos`
`\@mhcurrentrepos`

`\mhcurrentrepos` is used to initialize the current repository. If the repos has changed, it writes a call to the internal macro `\@mhcurrentrepos` for the aux file and calls it. So that the `\importmodule` calls there work with the correct repos.

```
3 \newcommand\mhcurrentrepos[1]{%
4   \edef\@test{#1}%
5   \ifx\@test\mh@currentrepos% if new dir = old dir
6     \relax% no need to change
7   \else%
8     \protected@write\@auxout{}{\string\@mhcurrentrepos{#1}}%
9   \fi%
10  \@mhcurrentrepos{#1}% define mh@currentrepos
11 }%
12 \newcommand\@mhcurrentrepos[1]{\edef\mh@currentrepos{#1}}%
```

`\libinput`

the `\libinput` macro inputs from the `lib` directory of the MathHub repository and then the `meta-inf/lib` repos of the group, if they exist.

```
13 \def\modules@@first#1/#2;{#1}
14 \newcommand\libinput[1]{%
15 \edef\@@group{\expandafter\modules@@first\mh@currentrepos;}
16 \edef\@inffile{\MathHub{\@@group/meta-inf/lib/#1}}
17 \IfFileExists\@inffile{\input\@inffile}{}%
18 \def\@libfile{\MathHub{\mh@currentrepos/lib/#1}}%
19 \IfFileExists\@inffile {}{\IfFileExists\@libfile{}{%
20   {\PackageError{mathhub}
21     {Library file missing; cannot input #1.tex\MessageBreak%
22     Both \@libfile.tex\MessageBreak and \@inffile.tex\MessageBreak%
23     do not exist}%
24   {Check whether the file name is correct}}}}
25 \IfFileExists\@libfile{\input\@libfile}{}}
```

`\libusepackage`

the `\libusepackage` is analogous to `\libinput`

```
26 \newcommand\libusepackage[2][]{%
27 \edef\@@group{\expandafter\modules@@first\mh@currentrepos;}
28 \edef\@inffile{\MathHub{\@@group/meta-inf/lib/#2}}
29 \IfFileExists{\@inffile.sty}{\usepackage[#1]{\@inffile}}{}%
30 \def\@libfile{\MathHub{\mh@currentrepos/lib/#2}}%
31 \IfFileExists {\@inffile.sty}{}{\IfFileExists{\@libfile.sty}{}{%
32   {\PackageError{mathhub}
33     {Library file missing; cannot use package #2.sty\MessageBreak%
```

```
34      Both \@libfile.sty\MessageBreak and \@inffile.sty\MessageBreak%
35      do not exist}%
36    {Check whether the file name is correct}}}}
37 \IfFileExists{\@libfile.sty}{\usepackage[#1]{\@libfile}}{}}
38 ⟨/package⟩
```

4.2 `omdoc--mh.sty`: MH Document Infrastructure

```
39 ⟨∗omdoc⟩
40 \ProvidesPackage{omdoc-mh}[2019/03/20 v1.1 MathHub support for OMDoc Documents]
41 \RequirePackage{mathhub}
```

\addmhbibresource

```
42 \newcommand\addmhbibresource[2][]{%
43    \def\@repos{#1}%
44    \ifx\@repos\@empty%
45    \addbibresource{\MathHub{\mh@currentrepos/#2}}%
46    \else
47    \addbibresource{\MathHub{\@repos/#2}}%
48    \fi%
49    \ignorespaces}%
50 ⟨/omdoc⟩
```

4.3 `modules-mh.sty`: MH Variants for Modules

```
51 ⟨∗modules⟩
52 \ProvidesPackage{modules-mh}[2019/03/20 v1.1 MathHub support for the sTeX modules package]
53 \RequirePackage{mathhub}
```

\importmhmodule   The \importmhmodule[⟨*key=value list*⟩]{module} saves the current value of
\mh@currentrepos in a local macro \mh@@repos, resets \mh@currentrepos to
the new value if one is given in the optional argument, and after importing resets
\mh@currentrepos to the old value in \mh@@repos. We do all the \ifx compar-
ison with an \expandafter, since the values may be passed on from other key
bindings. Parameters will be passed to \importmodule.

```
54 \srefaddidkey{importmhmodule}%
55 \addmetakey{importmhmodule}{repos}% saves the repo's path. E.g: smglom/numberfield
56 \addmetakey{importmhmodule}{path}% saves the module name. E.g: naturalnumbers
57 \addmetakey[sms]{importmhmodule}{ext}% saves the extension: E.g: tex
58 \addmetakey[false]{importmhmodule}{conservative}[true]%
59 \newcommand\importmhmodule[2][]{%
60    \metasetkeys{importmhmodule}{#1}%
61    \ifx\importmhmodule@path\@empty% if module name is not set
62      \importmodule[ext=\importmhmodule@ext,id=\importmhmodule@id]{#2}%
63    \else%
64      \edef\mh@@repos{\mh@currentrepos}% remember so that we can reset it.
65      \ifx\importmhmodule@repos\@empty% if in the same repos
66        \relax% no need to change mh@currentrepos, i.e, current directory.
67      \else%
```

```
68        \mhcurrentrepos{\importmhmodule@repos}% change it.
69      \fi%
70      \importmodule[load=\MathHub{\mh@currentrepos/source/\importmhmodule@path},%
71      ext=\importmhmodule@ext,id=\importmhmodule@id]{#2}%
72      \mhcurrentrepos{\mh@@repos}% after importing, reset to old value
73    \fi%
74    \ignorespaces%
75 }%
```

and now the analogs

\usemhmodule

```
76 \newcommand\usemhmodule[2][]{%
77    \metasetkeys{importmhmodule}{#1}%
78    \ifx\importmhmodule@path\@empty%
79      \usemodule[ext=\importmhmodule@ext,id=\importmhmodule@id]{#2}%
80    \else%
81      \edef\mh@@repos{\mh@currentrepos}%
82      \ifx\importmhmodule@repos\@empty%
83      \else%
84        \mhcurrentrepos{\importmhmodule@repos}%
85      \fi%
86      \usemodule[load=\MathHub{\mh@currentrepos/source/\importmhmodule@path},ext=\importmhmodule@
87      \mhcurrentrepos\mh@@repos%
88    \fi%
89    \ignorespaces%
90 }%
```

\mhinputref

```
91 \newcommand\mhinputref[2][]{%
92    \def\@repos{#1}%
93    \edef\mh@@repos{\mh@currentrepos}%
94    \ifx\@repos\@empty%
95    \else%
96      \mhcurrentrepos{#1}%
97    \fi%
98    \inputref{\MathHub{\mh@currentrepos/source/#2}}%
99    \mhcurrentrepos\mh@@repos%
100   \ignorespaces%
101 }%
```

\mhinput

```
102 \let\mhinput\mhinputref%
103 ⟨/modules⟩
```

4.4   `omtext-mh.sty`: MH Variants for OMText

```
104 ⟨*omtext⟩
105 \ProvidesPackage{omtext-mh}[2019/03/20 v1.1 MathHub support for the sTeX omtext package]
106 \RequirePackage{mathhub}
```

10

\mh*graphics Use the current value of `\mh@currentrepos` or the value of the `mhrepos` key if it is given in `\my*graphics`.

```
107 \def\Gin@mhrepos{}
108 \define@key{Gin}{mhrepos}{\def\Gin@mhrepos{#1}}
109 \newcommand\mhgraphics[2][]{\setkeys{Gin}{#1}%
110 \edef\mh@@repos{\mh@currentrepos}%
111 \ifx\Gin@mhrepos\@empty\mygraphics[#1]{\MathHub{\mh@currentrepos/source/#2}}%
112 \else\mygraphics[#1]{\MathHub{\Gin@mhrepos/source/#2}}\fi
113 \def\Gin@mhrepos{}\mhcurrentrepos\mh@@repos}
114 \newcommand\mhcgraphics[2][]{\begin{center}\mhgraphics[#1]{#2}\end{center}}
115 \newcommand\mhbgraphics[2][]{\fbox{\mhgraphics[#1]{#2}}}
116 \newcommand\mhcbgraphics[2][]{\begin{center}\fbox{\mhgraphics[#1]{#2}}\end{center}}
117 ⟨/omtext⟩
```

4.5 `smultiling-mh.sty`: MH Variants for Multilinguality

```
118 ⟨*smultiling⟩
119 \ProvidesPackage{smultiling-mh}[2019/03/20 v1.1 MathHub support for the sTeX smultiling package
120 \RequirePackage{mathhub}
```

mhmodnl:*

```
121 \addmetakey{mhmodnl}{repos}
122 \addmetakey{mhmodnl}{path}
123 \addmetakey*{mhmodnl}{title}
124 \addmetakey*{mhmodnl}{creators}
125 \addmetakey*{mhmodnl}{contributors}
126 \addmetakey{mhmodnl}{srccite}
127 \addmetakey{primary}{mhmodnl}[yes]
```

mhmodnl The `mhmodnl` environment is just a layer over the `module` environment and the `\importmhmodule` macro with the keys and language suitably adapted.

```
128 \newenvironment{mhmodnl}[3][]{\metasetkeys{mhmodnl}{#1}\def\@test{#1}%
129 \edef\@repos{\ifx\mhmodnl@repos\@empty\mh@currentrepos\else\mhmodnl@repos\fi}%
130 \edef\@load{\@repos/source/\ifx\mhmodnl@path\@empty #2\else\mhmodnl@path\fi}%
131 \ifx\@test\@empty\begin{modnl}[load=\@load]{#2}{#3}\else\begin{modnl}[load=\@load,#1]{#2}{#3}\f
132 \ignorespacesandpars}
133 {\end{modnl}\ignorespacesandparsafterend}
```

mhviewsig The `mhviewsig` environment is just a layer over the `mhview` environment with the keys suitably adapted.

```
134 \newenvironment{mhviewsig}[4][]{% keys, id, from, to
135 \def\@test{#1}\ifx\@test\@empty%
136 \begin{mhview}[id=#2,ext=tex]{#3}{#4}\else%
137 \begin{mhview}[id=#2,#1,ext=tex]{#3}{#4}\fi%
138 \ignorespacesandpars}
139 {\end{mhview}\ignorespacesandparsafterend}
```

mhviewnl The `mhviewnl` environment is just a layer over the `mhview` environment with the keys and language suitably adapted.[6]

EdN:6

---

[6]EDNOTE: MK: we have to do something about the if@langfiles situation here. But this is

```
140 \newenvironment{mhviewnl}[5][]{% keys, id, lang, from, to
141 \def\@test{#1}\ifx\@test\@empty%
142 \begin{mhview}[id=#2.#3,ext=tex]{#4}{#5}\else%
143 \begin{mhview}[id=#2.#3,#1,ext=tex]{#4}{#5}\fi%
144 \ignorespacesandpars}
145 {\end{mhview}\ignorespacesandparsafterend}
146 ⟨/smultiling⟩
```

4.6 `structview-mh.sty`: MH Variants for Structures and Views

```
147 ⟨∗structview⟩
148 \ProvidesPackage{structview-mh}[2019/03/20 v1.1 MathHub support for the sTeX structview package
149 \RequirePackage{mathhub}
```

mhstructure

```
150 \newenvironment{mhstructure}[3][]{%
151   \gdef\@@doit{\importmhmodule[#1]{#3}}%
152   \ifmod@show\par\noindent structure import "#2" from module #3 \@@doit\fi%
153   \ignorespacesandpars%
154 }{%
155   \aftergroup\@@doit\ifmod@show end import\fi%
156   \ignorespacesandparsafterend%
157 }%
```

importmhmodulevia this is now deprecated, we give an error

```
158 \newenvironment{importmhmodulevia}[2][]%
159 {\PackageError{structview-mh}%
160   {The {importmhmodulevia} environment is deprecated}{use the {mhstructure} instead!}%
161   \begin{mhstructure}[#1]{missing}{#2}}
162 {\end{mhstructure}}
```

```
163 \srefaddidkey{mhview}
164 \addmetakey{mhview}{display}
165 \addmetakey{mhview}{creators}
166 \addmetakey{mhview}{contributors}
167 \addmetakey{mhview}{srccite}
168 \addmetakey*{mhview}{title}
169 \addmetakey{mhview}{type}
170 \addmetakey{mhview}{fromrepos}
171 \addmetakey{mhview}{torepos}
172 \addmetakey{mhview}{frompath}
173 \addmetakey{mhview}{topath}
174 \addmetakey[sms]{mhview}{ext}
```

mhview the MathHub version

```
175 \newenvironment{mhview}[3][]{% keys, from, to
176   \metasetkeys{mhview}{#1}%
```

---

non-trivial, since we do not know the current path, to which we could append .⟨*lang*⟩!

12

```
177    \sref@target%
178    \begin{@mhview}{#2}{#3}%
179    \view@heading{#2}{#3}{\mhview@display}{\mhview@title}%
180    \ignorespacesandpars%
181 }{%
182    \end{@mhview}%
183    \ignorespacesandparsafterend%
184 }%
185 \ifmod@show\surroundwithmdframed{mhview}\fi
```

@mhview   The `@mhview` does the actual bookkeeping at the module level.

```
186 \newenvironment{@mhview}[2]{%from, to
187    \importmhmodule[repos=\mhview@fromrepos,path=\mhview@frompath,ext=\mhview@ext]{#1}%
188    \importmhmodule[repos=\mhview@torepos,path=\mhview@topath,ext=\mhview@ext]{#2}%
189 }{}%
```

mhviewsketch   The `mhviewsketch` environment is deprecated, we give an error

```
190 \newenvironment{mhviewsketch}[3][]%
191 {\PackageError{structview}%
192    {The {mhviewsketch} environment is deprecated}{use the {mhview} instead!}%
193    \begin{mhview}[#1]{#2}{#3}}
194 {\end{mhview}}
195 ⟨/structview⟩
```

4.7   mikoslides-mh.sty: Support for MiKo Slides

```
196 ⟨∗mikoslides⟩
197 \ProvidesPackage{mikoslides-mh}[2019/03/20 v1.1 MathHub support for the sTeX mikoslides package
198 \RequirePackage{mathhub}
```

\mhframeimage   Use the current value of `\mh@currentrepos` or the value of the `mhrepos` key if it
is given in `\frameimage`.

```
199 \def\Gin@mhrepos{}
200 \define@key{Gin}{mhrepos}{\def\Gin@mhrepos{#1}}
201 \newcommand\mhframeimage[2][]{%
202    \setkeys{Gin}{#1}%
203    \edef\mh@@repos{\mh@currentrepos}%
204    \ifx\Gin@mhrepos\@empty%
205      \frameimage[#1]{\MathHub{\mh@currentrepos/source/#2}}%
206    \else%
207      \frameimage[#1]{\MathHub{\Gin@mhrepos/source/#2}}%
208    \fi%
209 }%
```

\mhinputref*

```
210 \let\orig@mhinputref\mhinputref
211 \def\mhinputref{\@ifstar\nmhinputref\orig@mhinputref}
212 \newcommand\nmhinputref[2][]{\ifnotes\orig@mhinputref[#1]{#2}\fi}
213 ⟨/mikoslides⟩
```

4.8   **problem-mh.sty:** Support for Problems

214 ⟨∗problem⟩
215 \ProvidesPackage{problem-mh}[2019/03/20 v1.1 MathHub support for the sTeX problem package]
216 \RequirePackage{mathhub}

\includemhproblem   The \includemhproblem saves the current value of \mh@currentrepos in a local
macro \mh@@repos, resets \mh@currentrepos to the new value if one is given in
the optional argument, and after importing resets \mh@currentrepos to the old
value in \mh@@repos.

217 \newcommand\includemhproblem[2][]{\metasetkeys{inclprob}{#1}%
218 \edef\mh@@repos{\mh@currentrepos}%
219 \ifx\inclprob@mhrepos\@empty\else\mhcurrentrepos\inclprob@mhrepos\fi%
220 \input{\MathHub{\mh@currentrepos/source/#2}}%
221 \mhcurrentrepos\mh@@repos\clear@inclprob@keys}
222 ⟨/problem⟩

4.9   **hwexam-mh.sty:** Support for Assignments

223 ⟨∗hwexam⟩
224 \ProvidesPackage{hwexam-mh}[2019/03/20 v1.1 MathHub support for the sTeX hwexam package]
225 \RequirePackage{mathhub}

\includemhassignment   The \includemhassignment saves the current value of \mh@currentrepos in a
local macro \mh@@repos, resets \mh@currentrepos to the new value if one is given
in the optional argument, and after importing resets \mh@currentrepos to the old
value in \mh@@repos.

226 \newcommand\includemhassignment[2][]{\metasetkeys{inclassig}{#1}%
227 \edef\mh@@repos{\mh@currentrepos}%
228 \ifx\inclassig@mhrepos\@empty\else\mhcurrentrepos\inclassig@mhrepos\fi%
229 \includeassignment[#1]{\MathHub{\mh@currentrepos/source/#2}}%
230 \mhcurrentrepos\mh@@repos\clear@inclassig@keys}

\inputmhassignment   analogous

231 \newcommand\inputmhassignment[2][]{\metasetkeys{inclassig}{#1}%
232 \edef\mh@@repos{\mh@currentrepos}%
233 \ifx\inclassig@mhrepos\@empty\else\mhcurrentrepos\inclassig@mhrepos\fi%
234 \inputassignment[#1]{\MathHub{\mh@currentrepos/source/#2}}%
235 \mhcurrentrepos\mh@@repos\clear@inclassig@keys}
236 ⟨/hwexam⟩

4.10   **tikzinput-mh.sty:** Support for Assignments

237 ⟨∗tikzinput⟩
238 \ProvidesPackage{tikzinput-mh}[2019/03/20 v1.1 MathHub support for the sTeX tikzinput package]
239 \RequirePackage{mathhub}
240 \RequirePackage{pathsuris}

241 \define@key{Gin}{mhrepos}{\def\Gin@mhrepos{#1}}
242 \newcommand\mhtikzinput[2][]{\def\Gin@mhrepos{}\setkeys{Gin}{#1}%

```
243 \edef\mh@@repos{\mh@currentrepos}%
244 \ifx\Gin@mhrepos\@empty\tikzinput[#1]{\MathHub{\mh@currentrepos/source/#2}}%
245 \else\mhcurrentrepos\Gin@mhrepos\tikzinput[#1]{\MathHub{\Gin@mhrepos/source/#2}}\fi
246 \def\Gin@mhrepos{}\mhcurrentrepos\mh@@repos}
247 \newcommand\cmhtikzinput[2][]{\begin{center}\mhtikzinput[#1]{#2}\end{center}}
248 ⟨/tikzinput⟩
```

4.11 **lstmh.sty**: Support for Listings

```
249 ⟨∗lst⟩
250 \ProvidesPackage{lstmh}[2019/03/20 v1.1 MathHub support for the listings package]
251 \RequirePackage{mathhub}
252 \RequirePackage{pathsuris}

253 \define@key{lst}{mhrepos}{\def\lst@mhrepos{#1}}
254 \newcommand\lstinputmhlisting[2][]{\def\lst@mhrepos{}\setkeys{lst}{#1}%
255 \edef\mh@@repos{\mh@currentrepos}%
256 \ifx\lst@mhrepos\@empty\lstinputlisting[#1]{\MathHub{\mh@currentrepos/source/#2}}%
257 \else\lstinputlisting[#1]{\MathHub{\lst@mhrepos/source/#2}}\fi
258 \def\lst@mhrepos{}\mhcurrentrepos\mh@@repos}
259 \newcommand\clstinputmhlisting[2][]{\begin{center}\lstinputmhlisting[#1]{#2}\end{center}}
260 ⟨/lst⟩
```

Change History

References

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[GL]   *GitLab*. URL: http://gitlab.org (visited on 02/24/2014).

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[sTeX]   *KWARC/sTeX*. URL: https://github.com/KWARC/sTeX (visited on 05/15/2015).