

The `amxtra` package

American Mathematical Society

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1 Introduction

The `amxtra` package contains a few rarely used commands that were present in version 1.1 of the `amstex` package: `\fracwithdelims`, `accentedsymbol`, `\sphat`, `\spcheck`, `\sptilde`, `\spdot`, `\spddot`, `\spdddotted`, `\spbrev`. If any of these commands were used in existing documents, the `amxtra` package provides a way to get them. But for 99% of documents using the `amstex` package these commands are just wasted overhead.

```
1 \ProvidesPackage{amxtra}[1999/11/15 v1.2c]
```

We need to ensure that either the `amstex` package or the `amsmath` package is loaded. This means we need something a little more complicated than `\RequirePackage`.

```
2 \@ifpackageloaded{amstex}{}%
3   \RequirePackage{amsmath}[1996/10/01 v1.2]}
```

Superscripted accent characters.

```
4 \def\sphat{~{\mathchoice{}}}%
5 {\,\,\,\smash[b]{\hbox{\lower4\ex@\hbox{$\m@th\widehat{\null}$}}}}%
6 {\,\,\,\smash[b]{\hbox{\lower3\ex@\hbox{$\m@th\hat{\null}$}}}}%
7 \def\spcheck{~\vee}
8 \def\sptilde{~\sim}
9 \def\spdot{~{\hbox{\raise\ex@\hbox{\normalfont .}}}}
10 \def\spddot{~{\hbox{\raise\ex@\hbox{\normalfont ..}}}}
11 \def\spdddotted{~{\hbox{\raise\ex@\hbox{\normalfont ...}}}}
12 \def\spbrev{~{\!\smash[b]{\hbox{\lower4\ex@\hbox{\u{}}}}}}
```

The `\fracwithdelims` command is skipped if the base package is `amsmath`; it is only needed if the base package is `amstex`.

```
13 \@ifpackageloaded{amstex}{%
14 \def\fracwithdelims#1#2{\new@ifnextchar[{\fracwithdelims@#1#2}%
15   {\fracwithdelims@#1#2[\@empty]}}
16 \def\fracwithdelims@#1#2[#3]#4#5{\relax
17   \ifx\@empty#3[#4]overwithdelims#1#2#5\else
18     [#4]abovewithdelims#1#2#3\relax#5\fi
19 }}{}
```

Perhaps `\accentedsymbol` should use `\newsavebox`, but I don't know of any compelling reason at the moment.[mjd,5-Sep-1994] `\accentedsymbol` can only produce a single size of the given symbol, so you'd need two different versions for main size and subscript size.

```
20 \def\accentedsymbol#1#2{%
21   \expandafter\newbox
22     \csname\expandafter\@gobble\string#1\box\endcsname
23   \expandafter\setbox
24     \csname\expandafter\@gobble\string#1\box\endcsname
```

```

25     \hbox{$\m@th#2$}%
26   \newcommand{#1}{%
27     \expandafter\copy
28     \csname\expandafter\@gobble\string#1\box\endcsname{}}%
29 }

```

Change the definition of \sim to automatically remove a preceding space as well as a following space, if present.

```

30 \def~{\nobreakspace}
31 \DeclareRobustCommand{\nobreakspace}{\unskip\nobreak\ignorespaces}

```

The usual `\endinput` to ensure that random garbage at the end of the file doesn't get copied by `docstrip`.

```
32 \endinput
```

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<code>\,</code> <i>5, 6</i> <i>14, 15, 16</i>	<code>\raise</code> <i>9, 10, 11</i>
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