Using the *MathTimeProfessional* Font Supplement B with \texttt{\LaTeX}* 
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1 Typefaces

The *MathTimeProfessional* Font Supplement B provides Times-compatible script and fraktur typefaces.

*MathTimeProfessional* Math Script:

\begin{verbatim}
ABC[CD\cd EFG][HIJKLMN\cd OPQ][QRSTUVWXYZ][a][b]
cdefg\ci hijk\cd lmnopqrstuvwxyz
\end{verbatim}

*MathTimeProfessional* Math Fraktur:

\begin{verbatim}
ABCDEFGHIJKLMNOPQRSTUVWXY[3]
cdefghiijklmnopqrstuvwxyz[3]
\end{verbatim}

Each typeface is available as a regular variant (shown above), and as a bold one.

2 The macro package \texttt{mtpb}

The package \texttt{mtpb} serves to access these typefaces; it can be used only in conjunction with the package \texttt{mtpro}, which should be loaded first. (Otherwise, \texttt{mtpro} gets loaded automatically without any package options.)

\begin{verbatim}
\usepackage[(options)]{mtpro}
\usepackage[(options)]{mtpb}
\end{verbatim}

The package \texttt{mtpb} lets you select precisely which of the above fonts to use, and how. It must be loaded with at least one of the following options to have any effect:

- \texttt{mtpcal} assigns Math Script to the math alphabet \texttt{\mathcal}, thus overwriting the default calligraphic typeface (CM Calligraphic or Euler Script)

*This document refers to version v1.1 of the macro package \texttt{mtpb}.*
\texttt{mtpscr} assigns Math Script to a new math alphabet \texttt{\mathscr}, while the behavior of \texttt{\mathcal} is unchanged.

\texttt{mtpfrak} assigns Math Fraktur to a new math alphabet \texttt{\mathfrak}.

The fonts comprise only the Latin alphabet (including \texttt{\imath} and \texttt{\jmath}), so the related math alphabet commands such as \texttt{\mathcal} should not be applied to Greek letters, numbers, or symbols.

NB: The symbols \texttt{\Re} and \texttt{\Im} from the basic \textit{MathTimeProfessional} fonts are not exactly the same as the \texttt{\Re} and \texttt{\Im} from the Math Fraktur font. If you have loaded the \texttt{mtpb} package, and would prefer to have \texttt{\Re} and \texttt{\Im} use the letters from the \texttt{\mathfrak} alphabet, just redefine these macros appropriately:

\begin{verbatim}
\renewcommand{\Re}{\mathfrak{R}}
\renewcommand{\Im}{\mathfrak{I}}
\end{verbatim}

\section*{2.1 Bold type}

The corresponding bold fonts are accessible through the command \texttt{\bm}, which is provided by the macro package \texttt{bm}. For instance, \texttt{\bm{\mathfrak{A}}} prints the letter \texttt{\textfrak{A}} from the bold fraktur font. Of course, also the declaration \texttt{\boldmath} is honored.

The \texttt{mtpro} specific command \texttt{\mathbcal}, too, works as expected and yields the bold series of the font assigned to \texttt{\mathcal}.

\section*{2.2 Alternative letter shapes}

Several letters on the \textit{MathTimeProfessional} Script and Fraktur fonts are available with alternative shapes:

<table>
<thead>
<tr>
<th>Script:</th>
<th>Fraktur:</th>
</tr>
</thead>
<tbody>
<tr>
<td>C \altC C</td>
<td>Y \altY Y</td>
</tr>
<tr>
<td>G \altG \altG</td>
<td>x x \altx x</td>
</tr>
<tr>
<td>L \altL L</td>
<td>y y \alty y</td>
</tr>
<tr>
<td>Q \altQ Q</td>
<td>\altQ Q</td>
</tr>
<tr>
<td>Y \altY \altY</td>
<td>\altY \altY</td>
</tr>
<tr>
<td>Z \altZ \altZ</td>
<td>\altZ \altZ</td>
</tr>
<tr>
<td>z \altz \altz</td>
<td>\altz \altz</td>
</tr>
</tbody>
</table>

The \texttt{\alt...} commands are to be used only in conjunction with the \textit{MathTimeProfessional} Script and Fraktur fonts, i.e., within the argument of an appropriate math alphabet command. For instance, \texttt{\mathfrak{\altx}} yields \texttt{x}, provided that \textit{MathTimeProfessional} Fraktur is in fact assigned to \texttt{\mathfrak}. When the commands are used with other fonts, a warning message is issued and the corresponding ‘normal’ letter from the particular font is printed.

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