

## *MathTime Professional II* Fonts

The *MathTime Professional II* (*MTPro2*) fonts offer an easy and inexpensive way to move your math typesetting to a new level, with both improved style and new sets of symbols. *MTPro2* fonts will give your math documents a classical appearance, including large rounded parentheses and braces, large slanted radicals, and specially designed subscripts and superscripts. *MTPro2* fonts blend well with Times and other commonly-used fonts. Overall, using *MTPro2* fonts gives your math a professional and classical appearance.

**Easy to use.** Add one command to specify *MTPro2* fonts. Without any other changes your existing math document will use *MTPro2* fonts.

**Classical math typesetting.** Instead of relying on “extensible” symbols that are made from straight repeating parts, like the parentheses and radical signs in

$$\sqrt{\det \begin{pmatrix} a_{11} & \dots & a_{1n} \\ a_{21} & \dots & a_{2n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \dots & a_{nn} \end{pmatrix}} \quad (\textit{Computer Modern})$$

the *MathTime Professional* fonts allow you to get *individually designed* characters up to 4 inches high!

$$\sqrt{\det \begin{pmatrix} a_{11} & \dots & a_{1n} \\ a_{21} & \dots & a_{2n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \dots & a_{nn} \end{pmatrix}} \quad (\textit{MathTime Professional II})$$

Similarly, wide accents can get *really wide*—up to 4 inches wide—for formulas like

$$\widetilde{\widetilde{a_{11}}} + \widetilde{\widetilde{a_{12}}} + \dots + \widetilde{\widetilde{a_{nn}}} = \widehat{\widehat{b_{11}}} + \widehat{\widehat{b_{12}}} + \dots + \widehat{\widehat{b_{nn}}}$$

***MTPro2* fonts blend with Times.** When *Times* fonts are used together with equations like  $z^3 = x^3 + y^3$  and

$$C = \sum \frac{\partial m}{\partial x} \frac{\partial n}{\partial y} + \frac{\partial \alpha}{\partial \zeta} \frac{\partial \gamma}{\partial \xi} \quad (\textit{Computer Modern})$$

that are typeset in the Computer Modern mathematics fonts, the results are often disconcerting, because the Computer Modern fonts are so different in character—with much lighter strokes, and with Greek letters and other symbols rather different from the ones to which mathematicians have become accustomed. So the *MathTime Professional II* fonts were designed to produce formulas like  $z^3 = x^3 + y^3$  and

$$C = \sum \frac{\partial m}{\partial x} \frac{\partial n}{\partial y} + \frac{\partial \alpha}{\partial \zeta} \frac{\partial \gamma}{\partial \xi} \quad (\textit{MathTime Professional II})$$

that match the style of Times (they also go well with many other classical fonts).

(Continued on reverse)

The *MathTime Professional II* fonts are available in the **Lite** version (**\$39**) which includes all fonts needed for basic math typesetting, and the **Complete** version (**\$179**) which includes all AMS, blackboard, script, fraktur, and other fonts, all in three design sizes. If you purchase the **Lite** set and then decide you want the **Complete** set, the upgrade will be the difference in price (\$140).

For more information see the PCT<sub>E</sub>X Website [www.pctex.com](http://www.pctex.com) or contact [sales@pctex.com](mailto:sales@pctex.com)

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**Three design sizes.** Despite their very different appearance from the Computer Modern mathematics fonts, the *MathTime Professional II* fonts share one very important feature with Donald Knuth's fonts: they have specially designed (7 point) fonts for use in subscripts and superscripts, and (5.5 point) fonts for second-order subscripts and superscripts. Most other math fonts use *linearly scaled* 10 point fonts for subscripts, which gives an unbalanced appearance. For example

$$e^{AB-(CD/EF)+pq\times rs-tu\cdot vw/(xy-zw)} \quad \text{uses 70\% scaling of the 10 point font for superscripts}$$

whereas the *MathTime Professional* fonts have specially designed 7 point fonts for use in superscripts, so that we get the much more readable formula

$$e^{AB-(CD/EF)+pq\times rs-tu\cdot vw/(xy-zw)} \quad \text{uses the special MTPro 7 point font for superscripts}$$

**New symbols.** The following are examples of new symbols available with *MTPro2*. For more examples see [www.pctex.com](http://www.pctex.com).

$$\begin{aligned} & \varkappa \quad \alpha \quad \beta \quad \gamma, \dots, \cup \quad \cap \quad \grave{a} \quad \grave{d} \quad := \quad =: \quad \circ \bullet \quad \bullet \circ \\ & \iint \quad \iiint \quad \oint \quad \oiint \quad \oint \quad \oint \quad \int \quad \int \\ & \bigcup_{i=1}^k \alpha_i = \alpha_1 \cup \dots \cup \alpha_k \quad \bigstar_{i=1}^k = a_1 * \dots * a_k \quad \big\& \bigwedge_{i=1}^k P_i \iff P_1 \& \dots \& P_k \end{aligned}$$

All of the features above, and many more, are included in the *MTPro2 Lite* and **Complete** versions. Shown below are samples illustrating some of the fonts available only with the **Complete** version. Note that all of these fonts are available in three design sizes, including separately designed 7 point and 5.5 point versions.

- Bold versions of the italic fonts

$$a, b, c, x, y, z, \alpha, \beta, \gamma, \Gamma, \Delta, \Theta, \alpha, \beta, \gamma, \Gamma, \Delta, \Theta$$

- and bold and heavy (extra-bold) versions of the symbol and extension fonts

$$x \pm \oplus \otimes \subset \rightarrow \Rightarrow \approx \Sigma \int \quad x \pm \oplus \otimes \subset \rightarrow \Rightarrow \approx \Sigma \int$$

- “Times”-compatible versions of the AMS fonts

$$\lrcorner \triangleleft \lceil \varnothing \cap \boxtimes \otimes \leq \approx \gg \ddots \circ \supseteq \lesssim \Upsilon \rho \rho \hbar \approx \approx \notin \Upsilon \Leftarrow \Leftarrow \Leftarrow \curvearrowright \cup \Uparrow \neq$$

$$(7 \text{ point size}) \quad e \lrcorner \triangleleft \lceil \varnothing \cap \boxtimes \otimes \quad e^2 \lrcorner \triangleleft \lceil \varnothing \cap \boxtimes \otimes \quad (5.5 \text{ point size})$$

$$(Bold) \quad \lrcorner \triangleleft \lceil \varnothing \cap \boxtimes \otimes \leq \approx \gg \ddots \circ \supseteq \lesssim \Upsilon \rho \rho \hbar \approx \approx \notin \Upsilon \Leftarrow \Leftarrow \Leftarrow \curvearrowright \cup \Uparrow \neq$$

$$(Heavy) \quad \lrcorner \triangleleft \lceil \varnothing \cap \boxtimes \otimes \leq \approx \gg \ddots \circ \supseteq \lesssim \Upsilon \rho \rho \hbar \approx \approx \notin \Upsilon \Leftarrow \Leftarrow \Leftarrow \curvearrowright \cup \Uparrow \neq$$

- Script, Fraktur, “Holey-Roman-Bold”, Blackboard Bold, and “Curly” fonts

$$ABCDEF GHIJ KLMNOP QRSTUV WXYZ abcdef ghijklmnopqrstuvwxyz$$

$$\mathfrak{A}\mathfrak{B}\mathfrak{C}\mathfrak{D}\mathfrak{E}\mathfrak{F}\mathfrak{G}\mathfrak{H}\mathfrak{I}\mathfrak{J}\mathfrak{K}\mathfrak{L}\mathfrak{M}\mathfrak{N}\mathfrak{O}\mathfrak{P}\mathfrak{Q}\mathfrak{R}\mathfrak{S}\mathfrak{T}\mathfrak{U}\mathfrak{V}\mathfrak{W}\mathfrak{X}\mathfrak{Y}\mathfrak{Z} abcdef ghijklmnopqrstuvwxyz$$

$$ABCDEF GHIJ KLMNOP QRSTUV WXYZ abcdef ghijklmnopqrstuvwxyz$$

$$ABCDEF GHIJ KLMNOP QRSTUV WXYZ abcdef ghijklmnopqrstuvwxyz$$

$$\mathbb{R}\mathbb{B}\mathbb{C}\mathbb{D}\mathbb{E}\mathbb{F}\mathbb{G}\mathbb{H}\mathbb{I}\mathbb{J}\mathbb{K}\mathbb{L}\mathbb{M}\mathbb{N}\mathbb{O}\mathbb{P}\mathbb{Q}\mathbb{R}\mathbb{S}\mathbb{T}\mathbb{U}\mathbb{V}\mathbb{W}\mathbb{X}\mathbb{Y}\mathbb{Z} abcdef ghijklmnopqrstuvwxyz$$

See [www.pctex.com](http://www.pctex.com) for more fonts available with the *MTPro2 Complete* version.