`ryblatex.sty` Documentation

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December 17, 2024

1 Motivation

The purpose of this package is to create a single, coherent brief notation for homework, note, and project files across Math and Computer Science.

2 Letter Commands

Doing `\A...\Z` gives the MathBB font:

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

Doing `\cA...\cZ` gives the MathCal font:

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

Doing `\fA...\fZ` gives the Mathfrak font:

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

The above fonts can be paired with $\in$. Doing `\inA...\inZ` gives `\in` in MathBB font:

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

Doing `\incA...\incZ` gives `\in` in MathCal font:

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

Doing `\infA...\infZ` gives `\in` in Mathfrak font:

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

Redefining any of the letter commands will carry to the `\in` commands. For example, running `\renewcommand{\A}{A}$` makes `\inA` display

$$\in A$$

3 Math Commands

Various math commands have been added. Namely:

`\emptyset`	$\emptyset$
`\oldemptyset`	$\emptyset$
`\Mod{p}`	$\mod p$
`\divides`	$\mid$
`\notdivides`	$\nmid$
`\u{t}`	$\underline{t}$
`\o{t}`	$\overline{t}$
`\smatrix{1}{2}{3}{4}`	$\left(\begin{smallmatrix}1&2\\3&4\end{smallmatrix}\right)$
`\mat{1}{2}{3}{4}`	$\begin{pmatrix}1&2\\3&4\end{pmatrix}$
`\svect{1}{2}`	$\left(\begin{smallmatrix}1\\2\end{smallmatrix}\right)$
`\vect{1}{2}`	$\begin{pmatrix}1\\2\end{pmatrix}$
`\Choose{1}{2}`	${}^1C_2$
`\Perm{1}{2}`	${}^1P_2$
`\Id`	Id
`\Im`	Im