Correction Spacings: eqnarray(*), aligned, alignedat, and gathered

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1 Descriptions

We will realignment some expression environments spacing. It is a correction in the horizontal spacing of the alignment.

2 Usage

2.1 Preamble

```
\usepackage{amsmath}
\usepackage{correctmathalign}
```

Remark: amsmath package is optional: if you use aligned, alignedat, or gathered environments.

Remark: The problem with the amsmath package (2016/11/05 2.16a) was solved by the original. See the options `alignedleftspaceyes`, `alignedleftspaceno`, and `alignedleftspaceyesifneg`. We dealt with versions prior to 2016/03/10 v2.15b.

2.2 Options

– `latexorg`: original behavior of LaTeX/amsmath package

– `fleqn`: corresponds to class file and/or amsmath package's fleqn option

3 File with Original Definitions

– `eqnarray`: latex.ltx

– `\start@aligned` and `\gathered`: amsmath.sty (before 2016/03/10 v2.15b)

$$\mathrm{I} = \mathrm{H}(x+1)$$

$$\begin{aligned} \mathrm{I} \ &= \ \mathrm{H}(x) \\ &= \ \mathrm{H}(x+1) \end{aligned}$$

$$\begin{aligned} \mathrm{I} \ &= \ \mathrm{H}(x) \\ &= \ \mathrm{H}(x+1) \\ \mathrm{I} \ &= \ \mathrm{H}(x) \\ &= \ \mathrm{H}(x+1) \end{aligned}$$

Figure 1: `eqnarray*` environment by LATEX default.

Figure 2: `aligned` environment by `amsmath.sty` default (before 2016/03/10 v2.15b).

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5   Samples

Cf. defaults of LATEX and `amsmath.sty` before 2016/03/10 v2.15b (Figures 1 and 2).

$$\mathrm{I} = \mathrm{H}(x+1)$$

$$\begin{aligned} \mathrm{I} &= \mathrm{H}(x) \\ &= \mathrm{H}(x+1) \end{aligned}$$

$$\begin{aligned} \mathrm{I} &= \mathrm{H}(x) \\ &= \mathrm{H}(x+1) \\ \mathrm{I} &= \mathrm{H}(x) \\ &= \mathrm{H}(x+1) \end{aligned}$$

5.1   Use LATEX code

```
\[
 \mathrm{I} = \mathrm{H}(x + 1)
\]
\begin{eqnarray*}
 \mathrm{I} &=& \mathrm{H}(x)\\
           &=& \mathrm{H}(x + 1)
\end{eqnarray*}

\begin{align*}
 \mathrm{I} & \begin{aligned}[t]
           &= \mathrm{H}(x)\\
           &= \mathrm{H}(x + 1)
          \end{aligned}\\
 \mathrm{I} &= \mathrm{H}(x)\\
           &= \mathrm{H}(x + 1)
\end{align*}
```