Begriffsschrift examples

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if p then q:

$$\vdash \begin{array}{l} q \\ p \end{array}$$

and with a content stroke instead of assertion:

$$f\left(\begin{array}{l} q \\ p \end{array}\right)$$

from Frege's correspondence with Russell (a version of basic law V):

$$\vdash (\acute{\epsilon}f(\epsilon) = \acute{\alpha}g(\alpha)) = \underset{\mathfrak{a}}{\smile} \left(\begin{array}{l} f(\mathfrak{a}) = g(\mathfrak{a}) \\ \mathfrak{a} = \acute{\epsilon}f(\epsilon) \\ \mathfrak{a} = \acute{\alpha}g(\alpha) \end{array} \right)$$

from Russell's correspondence with Frege:

$$T = \acute{\beta}\acute{\gamma} \underset{\varphi}{\frown} \begin{array}{l} \varphi(\beta,\gamma) \\ \beta = \acute{\alpha}\acute{\epsilon}\varphi(\alpha,\epsilon) \\ \gamma = \acute{\alpha}\acute{\epsilon}\varphi(\alpha,\epsilon) \end{array}$$

the Geach-Kaplan sentence (thanks to Marcus Rossberg):

$$\underset{\mathfrak{F}}{\frown} \begin{array}{l} f\left(\underset{\mathfrak{a}}{\smile} \begin{array}{l} C(\mathfrak{a}) \\ \mathfrak{F}(\mathfrak{a}) \end{array} \right) \\ \underset{\mathfrak{b}}{\smile} \mathfrak{F}(\mathfrak{b}) \\ \underset{\mathfrak{c}}{\smile}\underset{\mathfrak{d}}{\frown} \begin{array}{l} \mathfrak{c} = \mathfrak{d} \\ \mathfrak{F}(\mathfrak{d}) \\ \mathfrak{F}(\mathfrak{c}) \\ A(\mathfrak{c},\mathfrak{d}) \end{array} \end{array}$$

That's all folks