Accents This demonstrates the extended semantics of `\mathaccent`. The first row uses an accent whose `charlist` ends with an `extensible recipe`, the second uses a traditional `charlist`.

$$\vec{a}\ \overrightarrow{ab}\ \overrightarrow{abc}\ \overrightarrow{abcd}\ \overrightarrow{abcde}$$

$$\bar{a}\ \overset{\leftarrow}{ab}\ \overset{\longleftarrow}{abc}\ \overset{\longleftarrow}{abcd}\ \overset{\longleftarrow}{abcde}$$

Nested accents and under accents with `\nestingmathaccent`, `\mathunder-accent` and `\nestingmathunderaccent`. The positioning information for the under accents is taken from the ⟨*skewchar*⟩-⟨*accentee*⟩ kerning and the ⟨*accent*⟩-⟨*accent*⟩ kerning.

$$\hat{\boxslash}\ \underset{\wedge}{\boxslash}\ \hat{\hat{\boxslash}}\ \underset{\wedge\wedge}{\boxslash}\ \underset{\wedge\wedge}{\hat{\hat{\boxslash}}}\quad \hat{\hat{\boxslash}}\ \hat{\hat{\hat{\boxslash}}}\ \underset{\wedge\wedge}{\hat{\hat{\boxslash}}}$$

Radicals Generalized radicals with `\genradical`.

$$\sqrt{a^{a^a}bc}\ \sqrt{a^{a^a}bc}\ \ \overline{a^{a^a}bc}\!\diagdown\!\surd\ \ \overline{a^{a^a}bc}\!\diagdown\!\surd$$

$$\sqrt{\overline{\sqrt{a}}\diagdown\!\surd}\diagdown\!\surd$$

Math style This sample shows that `\mathstyle` keeps track of the math style while scanning the formula.

$$D\frac{T}{T'}D\overline{D'}\underline{D}\sqrt{D'}D^{S^{SS}}_{S'_{SS'}}\hat{D}'D \quad TXTT$$

And here is the list of all math styles, activated via `\displaystyle`, `\cramped-displaystyle`, ..., `\scriptscriptstyle`, `\crampedscriptscriptstyle`.

$$D\ D'\ T\ T'\ {\scriptstyle S\ S'}\ {\scriptscriptstyle SS\ SS'}$$

The following display shows that `\fraction` has no influence on the typesetting.

```
\fraction{a+b\over c-d}={a+b\over c-d}
```

$$\frac{a+b}{c-d}=\frac{a+b}{c-d}$$

Extensible operators These have not been implemented in TeX the program, since this turned out to be a bit complicated (the limits of a `mathop` are positioned in the first pass over the `mlist`, but the size of big delimiters is not determined until the second pass). But I have done some macro hackery to show how this would look like. The input for the middle integral was (after a suitable redefinition of `\left`)

```
\left\int\limits^{\infty}_{-\infty}...\right.dx
```

$$\int\limits_{-\infty}^{\infty} abc^{a^{b^{d^e}}}\,dx \quad \left.\int\limits_{-\infty}^{\infty}\begin{pmatrix} a & b & c & d\\ e & f & g & h\\ i & j & k & l\\ m & n & o & p\end{pmatrix}\right. dx \quad \int_{-\infty}^{\infty} abc^{a^{b^{d^e}}}\,dx$$