String literals

Within a Z specification, a string literal may be written by enclosing it in double quotes, e.g. "hello, world".

In the lexis, the characters of a string are expected to appear literally, with escaped-denotations provided for just the string delimiter (\") and the escape character (\\). The character '"' remains in the SYMBOL class and can be used in a WORDPART, but not as the first character in a WORD.

In mark-up, characters may be denoted using similar conventions to those used in the C programming language.

\[
\begin{align*}
STRING & = "", \{STRCHAR\}, \\
STRCHAR & = \', ESCAPE \\
& | ? any UCS character other than \\
& \; \\
\end{align*}
\]
\[
\text{ESCAPE} = \ 'n' \\
| 't' \\
| 'b' \\
| 'r' \\
| 'f' \\
| \ ' \\

| NLCHAR \\

| OCTAL | OCTAL, OCTAL | OCTAL, OCTAL, OCTAL \\
| 'u', \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX} \\
| 'U', \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX}, \text{HEX} \\
\]

\[
\text{OCTAL} = \ '0' | '1' | '2' | '3' | '4' | '5' | '6' | '7';
\]

\[
\text{HEX} = \ '0' | '1' | '2' | '3' | '4' | '5' | '6' | '7' | '8' | '9' | 'a' | 'b' | 'c' | 'd' | 'e' | 'f' | 'A' | 'B';
\]

Also, a \ followed by any other character is taken to be just that character.

In the concrete syntax, strings are used as literals in expressions and for commentary as predicates.

\[
\text{Predicate} = \ \text{comment}, \text{STRING};
\]

\[
\text{Expression} = \ \text{STRING};
\]

There is no limit on the length of a string.

String literals are of type \textit{seq} A, with the numbers being UCS encodings.

There is no notation for denoting a character literal. (The delimiter used in most
other languages having been reserved in Z for use as a decoration.)

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