**ustringescape() — Convert escaped hex sequences to Unicode strings**

<table>
<thead>
<tr>
<th>Description</th>
<th>Syntax</th>
<th>Remarks and examples</th>
<th>Conformability</th>
</tr>
</thead>
</table>

### Description

`ustringescape(s)` returns a string of Unicode characters corresponding to the escaped sequences in `s`.

`ustringtohex(s [, n])` returns a string of escaped hex digit Unicode characters, up to 200, specified in `s`. If `n` is specified and is larger than one, the result starts at the `n`th Unicode character of `s`; otherwise, it starts at the first Unicode character.

When `s` is not a scalar, these functions return element-by-element results.

### Syntax

```
string matrix ustringescape(string matrix s)

string matrix ustringtohex(string matrix s [, real scalar n])
```

### Remarks and examples

The following escape sequences are recognized by `ustringescape()`:

- 4 hex digit form: \uhhhh
- 8 hex digit form: \Uhhhhhhhh
- 1–2 hex digit form: \xhh
- 1–3 octal digit form: \ooo

where `h` is in `[0–9A–Fa–f]` and `o` is in `[0–7]`. The standard ANSI C escape sequences \a, \b, \t, \n, \v, \f, \r, \e, \", \', \?, and \ are recognized as well. The function returns an empty string if an escape sequence is badly formed. Note that the 8 hex digit form \Uhhhhhhhh starts with a capital “U”.

`ustringtohex()` converts each Unicode character in string `s` to an escaped hex string. Unicode code points in the range \u0000–\uffff are converted to 4 hex digit form \uhhhh. Unicode code points greater than \uffff are converted to 8 hex digit form \Uhhhhhhhh.

`ustringtohex()` converts an invalid UTF-8 sequence to the Unicode replacement character \ufffd.

The null terminator char(0) is a valid Unicode character and its escaped form is \u0000.
Conformability

\[ ustrunescape(s), ustrtohex(s \ [ , n]) : \]

\[
\begin{align*}
s & : r \times c \\
n & : 1 \times 1 \\
result & : r \times c
\end{align*}
\]

Diagnostics

None.

Also see

[M-5] \textbf{ustrfix()} — Replace invalid UTF-8 sequences in Unicode string

[M-5] \textbf{ustrto()} — Convert a Unicode string to or from a string in a specified encoding

[M-4] \textbf{String} — String manipulation functions

[U] 12.4.2 Handling Unicode strings