### Description

`udsubstr(s, n1, n2)` returns the Unicode substring of `s`, starting at Unicode character `n1`, for `n2` display columns. If `n2 = . (missing)`, the remaining portion of the Unicode string is returned. If `n2` display columns from Unicode character `n1` is in the middle of a Unicode character, the substring stops at the previous Unicode character.

When arguments are not scalar, `udsubstr()` returns element-by-element results.

### Syntax

```
string matrix  udstsubstr(string matrix s, real matrix n1, real matrix n2)
```

### Remarks and examples

`n1 < 0` is interpreted as distance from the end of the Unicode string; `n1 = −1` means starting at the last Unicode character.

An invalid UTF-8 sequence is replaced with a Unicode replacement character `\ufffd`. Null terminator `char(0)` in a binary string is a valid UTF-8 character and will be counted and treated as such.

Use `ustrutch()` to extract a substring based on Unicode characters. Use `substr()` to extract a substring based on bytes.

### Conformability

<table>
<thead>
<tr>
<th><code>udsubstr(s, n1, n2)</code>:</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>s</code>: $r \times c$</td>
</tr>
<tr>
<td><code>n1</code>: $r \times c$ or $1 \times 1$</td>
</tr>
<tr>
<td><code>n2</code>: $r \times c$ or $1 \times 1$</td>
</tr>
<tr>
<td><code>result</code>: $r \times c$</td>
</tr>
</tbody>
</table>

### Diagnostics

`udsubstr(s, n1, n2)` returns an empty string if an error occurs.
Also see

[M-5] subinstr() — Substitute text
[M-5] substr() — Extract substring
[M-5] _substr() — Substitute into string
[M-5] usubinstr() — Replace Unicode substring
[M-5] usubstr() — Extract Unicode substring
[M-5] _usubstr() — Substitute into Unicode string
[M-4] String — String manipulation functions

[U] 12.4.2 Handling Unicode strings