

# The Anchor Command `anch`

The didactic GELLMU production system provides a command "`\anch`" for anchors that is parallel to the HTML anchor tag "`<a>`".

An example of basic usage is given by the following markup for an anchor to the World Wide Web Consortium (W3C):

```
\anch[href="http://www.w3.org/"]{this anchor}
```

The markup is used here for this anchor<sup>1</sup>.

The `urlanch` command provides a succinct way to insert an anchor whose visible content is the referenced URI.<sup>2</sup> Either of these commands may be used in a display, as here:

```
http://www.w3.org/.
```

One may ask whether there is a difference between the use of a macro `Urlanch` defined by

```
\newcommand{\Urlanch}[1]{\anch[href="#1"]{\path{#1}}}
```

and `urlanch`. The latter is used here:

```
http://www.w3.org/3.
```

There *is* a difference. The command `urlanch` corresponds to an SGML element, while anything defined with `newcommand` is fully expanded by the GELLMU syntactic translator before SGML generation. This means that the treatment of `urlanch` by a formatter is completely independent of the treatment of `anch` and `path` by a formatter, while the treatment of `Urlanch`, if so defined, is entirely dependent on the formatter's treatment of the other two names.

Whether it is sensible to undertake the effort of coding formatters to handle the SGML element `urlanch` in addition to the SGML elements `anch` and `path` depends upon whether or not one imagines that there is at least one hypothetical output format for one's document type that might benefit from independent treatment.<sup>4</sup>

If one thinks about these issues solely in terms of formatting from GELLMU markup to  $\text{\LaTeX}$ , one will come to realize that there are several approaches to the needs traditionally met in the  $\text{\LaTeX}$  world with packages:

- (a) Using macros such as `newcommand` for SGML generation.
- (b) Carefully crafting formatters from one's document type to  $\text{\LaTeX}$ .
- (c) Writing  $\text{\LaTeX}$  packages to "receive" various SGML (or XML, of course) document types.<sup>5</sup>

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<sup>1</sup>URI: <http://www.w3.org/>

<sup>2</sup>The name `urlanch` would be more "correct" since its content is a URI.

<sup>3</sup>URI: <http://www.w3.org/>

<sup>4</sup>With the default GELLMU formatter for  $\text{\LaTeX}$ , for example, a footnote is created with `Urlanch` but not with `urlanch`. (A footnote might also be avoided by using a different attribute name `Href` instead of `href`, but that still does not make the issue vanish.)

<sup>5</sup>In fact, it is generally easier to write formatters for document types that are formally XML. On the other hand, writing SGML is easier for authors. Since an SGML parser can, for most document types, convert SGML to XML, it is sensible for document types used with GELLMU to have both SGML and XML definitions.