

# The `l3cctab` package

## Experimental category code tables

The L<sup>A</sup>T<sub>E</sub>X3 Project\*

Released 2020-05-18

### 1 `l3cctab` documentation

A category code table enables rapid switching of all category codes in one operation. For Lua<sub>T</sub><sub>E</sub>X, this is possible over the entire Unicode range. For other engines, only the 8-bit range (0-255) is covered by such tables.

#### 1.1 Creating and initialising category code tables

---

<code>\cctab_new:N</code>	<code>\cctab_new:N</code> $\langle$ <i>category code table</i> $\rangle$
---------------------------	--

---

<code>\cctab_new:c</code>	
---------------------------	--

Creates a new  $\langle$ *category code table* $\rangle$  variable or raises an error if the name is already taken. The declaration is global. The  $\langle$ *category code table* $\rangle$  is initialised with the codes as used by `iniTEX`.

---

<code>\cctab_const:Nn</code>	<code>\cctab_const:Nn</code> $\langle$ <i>category code table</i> $\rangle$ $\{$ $\langle$ <i>category code set up</i> $\rangle$ $\}$
------------------------------	---

---

<code>\cctab_const:cn</code>	
------------------------------	--

Creates a new  $\langle$ *category code table* $\rangle$  with the category code settings in force at the time the function is called, and applies the  $\langle$ *category code set up* $\rangle$  on top of prevailing settings, then saves as a constant table.

---

<code>\cctab_gset:Nn</code>	<code>\cctab_gset:Nn</code> $\langle$ <i>category code table</i> $\rangle$ $\{$ $\langle$ <i>category code set up</i> $\rangle$ $\}$
-----------------------------	--

---

<code>\cctab_gset:cn</code>	
-----------------------------	--

Sets the  $\langle$ *category code table* $\rangle$  to apply the category codes which apply when the prevailing régime is modified by the  $\langle$ *category code set up* $\rangle$ . Thus within a standard code block the starting point will be the code applied by `\c_code_cctab`. The assignment of the table is global: the underlying primitive does not respect grouping.

#### 1.2 Using category code tables

---

<code>\cctab_begin:N</code>	<code>\cctab_begin:N</code> $\langle$ <i>category code table</i> $\rangle$
-----------------------------	--

---

<code>\cctab_begin:c</code>	
-----------------------------	--

Switches the category codes in force to those stored in the  $\langle$ *category code table* $\rangle$ . The prevailing codes before the function is called are added to a stack, for use with `\cctab_end:`. This function does not start a <sub>T</sub><sub>E</sub>X group.

---

\*E-mail: [latex-team@latex-project.org](mailto:latex-team@latex-project.org)

<u>\cctab_end:</u>	\cctab_end:
	Ends the scope of a <i>category code table</i> started using \cctab_begin:N, retuning the codes to those in force before the matching \cctab_begin:N was used.

### 1.3 Category code table conditionals

<u>\cctab_if_exist_p:N *</u>	\cctab_if_exist_p:N <i>category code table</i>
<u>\cctab_if_exist_p:c *</u>	\cctab_if_exist:NTF <i>category code table</i> <i>{true code}</i> <i>{false code}</i>
<u>\cctab_if_exist:NTF *</u>	Tests whether the <i>category code table</i> is currently defined. This does not check that the
<u>\cctab_if_exist:cTF *</u>	<i>category code table</i> really is a category code table.

### 1.4 Constant category code tables

<u>\c_code_cctab</u>	Category code table for the code environment. This does not include setting the behaviour of the line-end character, which is only altered by \ExplSyntaxOn.
----------------------	--

<u>\c_document_cctab</u>	Category code table for a standard L <sup>A</sup> T <sub>E</sub> X document. This does not include setting the behaviour of the line-end character, which is only altered by \ExplSyntaxOff.
--------------------------	--

<u>\c_initex_cctab</u>	Category code table as set up by iniT <sub>E</sub> X.
------------------------	---

<u>\c_other_cctab</u>	Category code table where all characters have category code 12 (other).
-----------------------	---

<u>\c_str_cctab</u>	Category code table where all characters have category code 12 (other) with the exception of spaces, which have category code 10 (space).
---------------------	---

## Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

<b>C</b>		\c_code_cctab . . . . . <i>1, 2</i>
cctab commands:		\c_document_cctab . . . . . <i>2</i>
\cctab_begin:N . . . . .	<i>1, 2</i>	\c_initex_cctab . . . . . <i>2</i>
\cctab_const:Nn . . . . .	<i>1</i>	\c_other_cctab . . . . . <i>2</i>
\cctab_end: . . . . .	<i>1, 2</i>	\c_str_cctab . . . . . <i>2</i>
\cctab_gset:Nn . . . . .	<i>1</i>	
\cctab_if_exist:NTF . . . . .	<i>2</i>	<b>E</b>
\cctab_if_exist_p:N . . . . .	<i>2</i>	\ExplSyntaxOff . . . . . <i>2</i>
\cctab_new:N . . . . .	<i>1</i>	\ExplSyntaxOn . . . . . <i>2</i>