

# The `l3cctab` package

## Experimental category code tables

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

Released 2020-06-03

## 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

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

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|                           |  |
|---------------------------|--|
| <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`.

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

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|                              |  |
|------------------------------|--|
| <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.

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

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|                             |  |
|-----------------------------|--|
| <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

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

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|                             |  |
|-----------------------------|--|
| <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.

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

|                 |   |
|-----------------|---|
| <hr/> <hr/>     | <code>\cctab_end:</code>  |
|                 | Ends the scope of a <i>category code table</i> started using <code>\cctab_begin:N</code> , retuning the codes to those in force before the matching <code>\cctab_begin:N</code> was used. |
| <hr/> <hr/>     | <code>\cctab_select:N</code>  |
| <hr/>           | <code>\cctab_select:N</code> <i>category code table</i>   |
| New: 2020-05-19 | Selects the <i>category code table</i> for the scope of the current group.  |

### 1.3 Category code table conditionals

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

### 1.4 Constant category code tables

|             |                                |  |
|-------------|--------------------------------|--|
| <hr/> <hr/> | <code>\c_code_cctab</code>     | Category code table for the code environment. This does not include setting the behaviour of the line-end character, which is only altered by <code>\ExplSyntaxOn</code> .                                 |
| <hr/> <hr/> | <code>\c_document_cctab</code> | 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 <code>\ExplSyntaxOff</code> . |
| <hr/> <hr/> | <code>\c_initex_cctab</code>   | Category code table as set up by <code>iniT<sub>E</sub>X</code> .  |
| <hr/> <hr/> | <code>\c_other_cctab</code>    | Category code table where all characters have category code 12 (other).  |
| <hr/> <hr/> | <code>\c_str_cctab</code>      | Category code table where all characters have category code 12 (other) with the exception of spaces, which have category code 10 (space).  |

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