The l3keys2e package
LaTeX 2ε option processing using LaTeX3 keys

The LaTeX3 Project*

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The key–value method for optional arguments is very popular, as it allows the class or package author to define a large number of options with a simple interface. The expl3 bundle of LaTeX3 base code includes the module l3keys for defining keys, but to use these when loading LaTeX 2ε packages and classes requires extra support. That support is provided by this small package, which is intended to enable LaTeX 2ε packages to benefit from the power of the LaTeX3 key–value system.

0.1 Creating and using keyval options

As with any key–value input, using key–value pairs as package or class options has two parts. The first stage is to define one or more keys, using the `\keys_define:nn` function. For example, an option which simply stores a value would be created using:

```
\keys_define:nn { module }
  { option .tl_set:N = \l_module_variable_tl }
```

On its own, this will not make the key an option for the package or class containing the definition. The second stage is therefore to process the current options, searching for applicable keys.

`\ProcessKeysOptions` `\ProcessKeysOptions {`⟨*module*⟩`}`

The `\ProcessKeysOptions` function is used to check the current option list against the keys defined for `{`⟨*module*⟩`}`. Global (class) options and local (package) options are checked when this function is called in a package. Each option which does match a key name is then used to attempt to set the appropriate key using `\keys_set:nn`. For example, the option defined earlier would be processed by the line

```
\ProcessKeysOptions { module }
```

`\ProcessKeysPackageOptions` `\ProcessKeysPackageOptions {`⟨*module*⟩`}`

This function works in a similar manner to `\ProcessKeysOptions`. When used in a LaTeX 2ε package, `\ProcessKeysPackageOptions` will not examine any class options available. In contrast, `\ProcessKeysOptions` does parse class options (in common with the LaTeX 2ε kernel function `\ProcessOptions`).

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When passing unknown keys to other packages, the standard LaTeX `\CurrentOption` command is available and should be used. In contrast to `\l_keys_key_str`, `\CurrentOption` is a token list and thus retains category code information. Depending on how options are used by third-party packages, this may be essential for the option to be recognised.

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.