



The `datestamp` package

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 <https://ctan.org/pkg/datestamp>
 <https://gitlab.com/niruvt/datestamp>

Abstract

This question on SE inspired me to write a code which can store and recall dates whenever needed. Lua^LTeX provided a smooth interface for achieving this and thus this package was developed.

`\adddatestamp`

`\adddatestamp {⟨key⟩}`

This command takes one mandatory argument which is the key that we set for printing the date. The key is printed in the auxiliary file with extension `.ds`. If in case one loses their auto-generated `.ds` file, they can simply write one with whichever dates of their choice. e.g. A sample `.ds` file might look like the following.

```
firstdate = "August 21, 2021"  
seconddate = "September 21, 2021"  
thirddate = "October 22, 2021"
```

One can fool the program by writing a file like this themselves!

`\addmonthstamp`

`\addmonthstamp {⟨key⟩}`

Similar to `\adddatestamp`, this command prints a fixed month-stamp.

`\addyearstamp`

`\addyearstamp {⟨key⟩}`

This command prints a fixed year-stamp.

L^AT_EX package `datestamp`

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1 Implementation

Provide package with its basic information.

```
1 <@@=datestamp>
2 <*package>
3 \ProvidesPackage{datestamp}[2021/10/22 v0.1
4 Fixed date-stamps with LuaLaTeX.]
```

Load package `xparse` for declaring the robust command `\luacodefordatestamp`. This is a generic & internal command. We will Call `\directlua` & open a file in append mode so that it will be created if doesn't exist & just appended if exists. The following code creates a file with the extension `.ds` & the name of the root file. Note that using `a+` mode also enables the `read` mode.

```
5 \RequirePackage{xparse}
6 \NewDocumentCommand{\luacodefordatestamp}{ m m }{%
7   \directlua{%
8     dsfile = io.open("\jobname.ds", "a+")
```

Now we store the content of the `.ds` file in a variable named `dscontent`.

```
9     dscontent = dsfile:read "*a"
```

We first check if the key used in the argument of `\adddatestamp` is already present in our aux file and if it is present, our code does nothing. It adds the key followed by the `=` sign and the date to the `.ds` file if the key is absent. We close the file when this job is done & we end the if-conditional.

```
10     if string.find(dscontent, "#1") then
11     else
12         dsfile:write("#1 = \string\"#2\string\" \string\n")
13         io.close(dsfile)
14     end
```

With `dofile` command we execute the `.ds` file as a Lua code. With this our keys automatically become Lua variables which store the dates.

```
15     dofile("\jobname.ds")
```

Finally we print the date by calling the key as a Lua variable (which is by the way our `TEX`-argument `XD`).

```
16     tex.sprint(#1)
17 }%
18 }
```

After creating this generic internal command, we use it for producing various stamps. i.e. date, month & year. I am using the default `TEX`-commands for producing them as these commands have great localization-support.

```
19 \NewDocumentCommand{\adddatestamp}{ m }{%
20   \luacodefordatestamp{#1}{\today}%
21 }%
22 \NewDocumentCommand{\addyearstamp}{ m }{%
23   \luacodefordatestamp{#1}{\the\year}%
24 }%
25 \NewDocumentCommand{\addmonthstamp}{ m }{%
26   \luacodefordatestamp{#1}{\the\month}%
27 }%
28 \NewDocumentCommand{\adddaystamp}{ m }{%
29   \luacodefordatestamp{#1}{\the\day}%
30 }%
```

End of the package.

³¹ `</package>`

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