

The **syshex** package ^{*}

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Abstract

Lightweight, L^AT_EX package, that makes available commands to make a (hexa-)decimal timestamp, which can be useful to create unique filenames.

Résumé

Extension L^AT_EX offrant un horodateur (hexa-)decimal, qui peut trouver son utilité pour produire des noms de fichiers uniques.

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^{*}This file describes version v1.0, last revised 2020/04/22.

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Part I

Usage

<u><u>\usepackage</u></u>	<u>\usepackage{syshex}</u>
	Requirement
	1. <code>syshex.sty</code> is in the path of the L ^A T _E X engine. See Part III, section 3 .
	2. Declare it in the <i>preamble</i>
<u><u>SyshexDate</u></u>	<u>\SyshexDate</u>
	Semantics Numeric date
<u><u>SyshexDateHex</u></u>	<u>\SyshexDateHex</u>
	Semantics Numeric date (hex)

<u>SyshexFilename</u>	\SyshexFilename
	Semantics \c_sys_jobname_str--\SyshexDateHex--\SyshexTimeHex[1]
<u>SyshexTime</u>	\SyshexTime
	Semantics Numeric time
<u>SyshexTimeHex</u>	\SyshexTimeHex
	Semantics Numeric time (hex)

Part II

Listing

Listing 1. All at once

```
\noindent\SyshexDate\  
\SyshexDateHex\  
\SyshexTime\  
\SyshexTimeHex\  
\SyshexFilename
```

```
20200422  
1343be6  
1525  
5f5  
syshex-1343be6-5f5
```

Part III

Other

1 Acknowledgment

This work has benefited from Q&A's from the L^AT_EXcommunity[2]

2 Install

- 1) Compile `syshex.dtx` (under Unix, `$tex syshex.dtx`)
- 2) Put the generated `syshex.sty` in the search path of the L^AT_EXengine

3 Support

This package is available from <https://www.ctan.org/pkg/syshex> and <https://github.com/rogard/syshex>.

3.1 Platform

- i)* Linux laptop 4.15.0-20-generic #21-Ubuntu SMP Tue Apr 24
↪ 06:16:15 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux

3.2 Engine

- a)* pdfTeX 3.14159265-2.6-1.40.20 (TeX Live 2019)
- b)* pdfTeX 3.14159265-2.6-1.40.21 (TeX Live 2020)
- c)* LuaHBTeX, Version 1.12.0 (TeX Live 2020)
- d)* XeTeX 3.14159265-2.6-0.999992 (TeX Live 2020)

3.3 Results

- 1) `syshex v1.0` satisfactory on platform *i)* and engines *b)*, *c)*, and *d)*

References

- [1] The L^AT_EX3 Project Team *The L^AT_EX3 interfaces*, 2019, <http://ftp.math.purdue.edu/mirrors/ctan.org/macros/latex/contrib/l3kernel/interface3.pdf>
- [2] <https://tex.stackexchange.com/users/112708/erwann?tab=questions>

Change History

v1.0

General: Initial version 5

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		\usepackage 2

Part IV

Implementation

1 Opening

```
1 <@@=syshex>
2 \ExplSyntaxOn
```

2 date

`__syshex_date:`

```
3 \cs_new:Nn \__syshex_date:
4 {
5   \int_eval:n
6   {
7     \c_sys_year_int * 10000
8     +\c_sys_month_int * 100
9     +\c_sys_day_int * 1
10  }
11 }
```

(End definition for __syshex_date:.)

```
12 \NewDocumentCommand\SyshexDate{}{\__syshex_date:}
```

`__syshex_date_hex:`

```
13 \cs_new:Nn \__syshex_date_hex:
14 {\int_to_hex:n{\__syshex_date:}}
```

(End definition for __syshex_date_hex:.)

```
15 \NewDocumentCommand\SyshexDateHex{}{\__syshex_date_hex:}
```

3 time

`__syshex_time:`

```
16 \cs_new:Nn \__syshex_time:
17 {
18   \int_eval:n
19   {
20     \c_sys_hour_int * 100
21     +\c_sys_minute_int * 1
22   }
23 }
```

(End definition for __syshex_time:.)

```
24 \NewDocumentCommand\SyshexTime{}{\__syshex_time:}
```

`__syshex_time_hex:`

```
25 \cs_new:Nn \__syshex_time_hex:
26 {\int_to_hex:n{\__syshex_time:}}
```

(End definition for __syshex_time_hex:.)

```
27 \NewDocumentCommand\SyshexTimeHex{}{\__syshex_time_hex:}
```

4 file

```
\_syshex_filename:
28 \cs_new:Nn\_syshex_filename:
29 {
30   \c_sys_jobname_str--
31   \_syshex_date_hex:--
32   \_syshex_time_hex:
33 }

(End definition for \_syshex_filename:.)
34 \NewDocumentCommand\SyshexFilename{}{\_syshex_filename:}
```

5 Closing

```
35 \ExplSyntaxOff
```