

Hello, Lua<sup>A</sup>T<sub>E</sub>X!

`\dl` in the following stands for `\directlua`, the Lua<sup>A</sup>T<sub>E</sub>X command for invoking Lua. Then `\dlts{#}` stands for `\directlua{tex.sprint(#)}`, where `tex.sprint` prints its argument into the output PDF.

## 1 Easy goals

### 1.1 Pass a T<sub>E</sub>X variable to Lua

It is pretty straightforward:

```
\newcommand{\latexvar}{5}
\newcommand{\latexname}{Cristina}
\dl{texvar = \latexvar
    texname = '\latexname'}
%
\dlts{texvar} is \dlts{texname}'s
    favorite number.
```

5 is Cristina's favorite number.

### 1.2 Pass a Lua variable to PDF

It has already been shown, through

```
\dl{name = 'Mario'
    age = 37
    favnum = math.pi
}
%
\dl{tex.print(name .. ' is ' ..
    age .. ' years old.')}
\dlts{name}'s favorite number is
    {\dlts{favnum}}.
```

Mario is 37 years old. Mario's favorite number is 3.1415926535898.

`tex.print` is an alternative for `tex.sprint`. In the following `\dlts` will be used.

### 1.3 Pass a Lua variable to T<sub>E</sub>X

This is a bit trickier. Let's try

```
\newcounter{mycounter}
\setcounter{mycounter}{\dlts{age}}
\newcommand{\luaname}{\dlts{name}}
\arabic{mycounter} is
\luaname's age.
```

37 is Mario's age.