

# The Implementation of Lua 5.0

**Roberto Ierusalimschy**

(Department of Computer Science, PUC-Rio, 931279265.i92101C-Ro, 9312708754752101dee, JaneirR)



**Simplicity: We seek the simplest language we can afford and the simplest C code that implements this language. This language from 5178 0 Td4e**





**Figure 1: Lua values are represented as tagged unions**

Lua represents values as tagged unions, that is, as pairs  $(t;v)$ , where  $t$  is

be represented as heap-allocated objects, just like strings. (Python uses this

value

<b>100</b>
<b>200</b>
<b>300</b>
<b>nil</b>







upvalue per variable and reusing it as needed. To ensure this uniqueness, Lua keeps a linked list with all open upvalues (that is, those that still point to the



discussed in Section 3. So, the register arc

MOVE      A B      R(A)





L A L  
A

## **8 Conclusion**



## **Acknowledgments**

**Edgar Toernig**

