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: 1. « » , CHIP Ukraine 10.2003 2. " -

, 2001. - 202 . 3. <http://www.nceai.gov.ua/publication.phtml> -

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*just-in-time* —

just-in-time

Hotspot Java.

just-in-time

(annotated control-flow graphs, CFG).

(Static Single Assignment, SSA).

$z = x + y$   
 $z = z + 5$

$z_1 = z + 5$

SSA-

SSA (

SSA

SSA

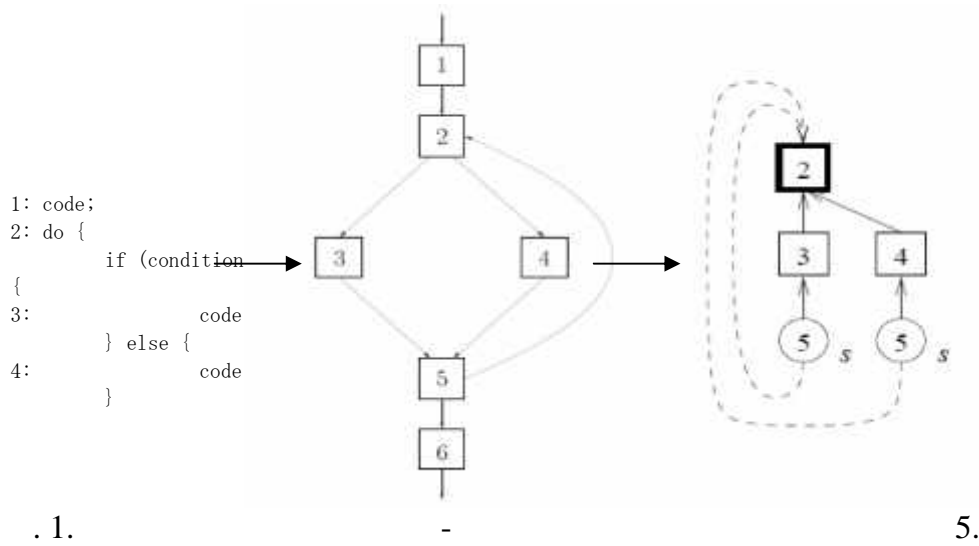
(virtual machine, VM),

(embedded VM),

# SSA

(« »)

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LuaJIT —

Lua.

:

Test mandelbrot.lua:

lua	26.61s	14.35
luajit	3.92s	2.12
luajit-2.0.0-beta1	1.85s	1.00

Test binary\_trees.lua:

lua	0.17s	3.25
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luajit	0.09s	1.80
luajit-2.0.0-beta1	0.05s	1.00

SSA

« »,

- fold - Constant Folding, Simplifications and Reassociation
- cse - Common Subexpression Elimination
- dce - Dead Code Elimination

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