$?$

$fmiDoStep$

$fmiDoStep$

$fmiStatus fmiDoStep($

$fmiComponent c,$

$fmiReal currentCommunicationPoint,$

$fmiReal communicationStepSize,$

$fmiBoolean noSetFMUStatePriorToCurrentPoint)$

$currentCommunicationPoint$

$fmiGetFMUstate$

$fmiSetFMUstate$

$?$

FMU syntax

$F =$

$(S, U, Y, D, s_0, set, get, doStep)$

S

F

U

F

$u \in$

U

V

Y

F

$y \in$

Y

V

$D \subseteq$

$U \times$

Y

$(u, y) \in$

D

I/O

$s_0 \in$

S

F

$set :$

$S \times$

$U \times$

$V \to$

S

$s \in$

S

$u \in$

U

$v \in$

V

u

v

$get :$

$S \times$

$Y \to$

V

$s \in$

S

$y \in$

Y

$get(s, y)$

y

s

$doStep :$

$S \times$

$R_0 \to$

$S \times$

R_0

s

$h \in$

$R_0 doStep(s, h)$

(s', h')

$h' =$

h

F

h'

s'

$0 h' <$

h

F

h

h'

s'

FMU semantic-

$F =$

$(S, U, Y, D, s_0, set, get, doStep)$

$doStep$

F

$v_0 h_1 v_1 h_2 v_2 h_3 ...$

v_i

h_i

$v :$

$U \to$

Y

U

F

(t, s, v, v')

$t \in$

R_0

$s \in$

S