An Event-B Specification of

ExtendsMultipleContexts

1 CONTEXT Alfa **2**
1.1 AA . . . 2
1.2 a aa aaa . . . 2

2 CONTEXT Beta **3**
2.1 BB . . . 3
2.2 b bb bbb . . . 3

3 CONTEXT Gamma **4**
3.1 GG . . . 4
3.2 g gg ggg . . . 4

4 MACHINE Machina **5**
4.1 *xa xb xg* . . . 5

CONTEXT Alfa 1

SETS 1.1

AA

CONSTANTS 1.2

a

aa

aaa

AXIOMS

axm1: partition(AA, {a}, {aa}, {aaa})

END

CONTEXT Beta 2

SETS 2.1

BB

CONSTANTS 2.2

b
bb
bbb

AXIOMS

axm1: partition(BB, {b}, {bb}, {bbb})

END

CONTEXT Gamma 3

EXTENDS Alfa Beta

SETS 3.1

GG

CONSTANTS 3.2

g
gg
ggg

AXIOMS

axm1: partition(GG, {g}, {gg}, {ggg})

END

MACHINE Machina 4

SEES Gamma

VARIABLES 4.1

xa
xb
xg

INVARIANTS

inv1: $xa \in AA$
inv2: $xb \in BB$
inv3: $xg \in GG$

EVENT INITIALISATION
THEN

init1: $xa := a$
init2: $xb := b$
init3: $xg := g$

END

Alfa, 2, 4

Beta, 3, 4

Gamma, 4, 5

INITIALISATION, 5

Machina, 5

xa, 5
xb, 5
xg, 5