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# lectureExample

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50257:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/lectureExample.dot

Scheduling scheduler-framework-master/graphs/lectureExample.dot

d10 (Add):

successors

d11 0

predecessors

d7 0

d32 (Add):

successors

d33 0

predecessors

d7 0

d31 0

d20 (Sub):

successors

d26 0

predecessors

d7 0

d19 0

d31 (Mul):

successors

d32 0

predecessors

d7 0

d23 (Mul):

successors

d25 0

predecessors

d7 0

d11 (Mem):

successors

d35 0

predecessors

d10 0

d7 0

d33 (Mem):

successors

d37 0

predecessors

d32 0

d7 0

d25 (Mul):

successors

d26 0

predecessors

d7 0

d23 0

d35 (Mem):

predecessors

d7 0

d11 0

d27 (Mem):

successors

d39 0

predecessors

d7 0

d26 0

d37 (Mem):

predecessors

d7 0

d33 0

d15 (Mul):

successors

d17 0

predecessors

d7 0

d26 (Sub):

successors

d27 0

predecessors

d7 0

d20 0

d25 0

d17 (Mul):

successors

d19 0

predecessors

d7 0

d15 0

d39 (Mem):

predecessors

d7 0

d27 0

d19 (Mul):

successors

d20 0

predecessors

d7 0

d17 0

d7 (Cmp):

successors

d10 0

d32 0

d31 0

d20 0

d23 0

d11 0

d33 0

d25 0

d35 0

d27 0

d15 0

d37 0

d26 0

d17 0

d39 0

d19 0

Nr of Nodes : 17

ASAP

Found schedule of length 19

d7 : [0:0]

d10 : [1:1]

d31 : [1:4]

d23 : [1:4]

d15 : [1:4]

d11 : [2:3]

d35 : [4:5]

d32 : [5:5]

d25 : [5:8]

d17 : [5:8]

d33 : [6:7]

d37 : [8:9]

d19 : [9:12]

d20 : [13:13]

d26 : [14:14]

d27 : [15:16]

d39 : [17:18]

Registered resources

SUB 14 1.4

SUB 13 1.4

MUL 4 6.8999999999999995

MUL 3 6.8999999999999995

MUL 2 6.8999999999999995

MUL 1 6.8999999999999995

MUL 8 4.6

MUL 7 4.6

MUL 6 4.6

MUL 5 4.6

MUL 12 2.3

MUL 11 2.3

MUL 10 2.3

MUL 9 2.3

MEM 18 9.0

MEM 17 9.0

MEM 16 9.0

MEM 15 9.0

MEM 9 9.0

MEM 8 9.0

MEM 7 9.0

MEM 6 9.0

MEM 5 9.0

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

ADD 5 1.0

ADD 1 1.0

CMP 0 2.1

cost = 20.4

ALAP

Found schedule of length 19

d7 : [0:0]

d15 : [1:4]

d17 : [5:8]

d23 : [6:9]

d19 : [9:12]

d31 : [10:13]

d25 : [10:13]

d20 : [13:13]

d10 : [14:14]

d32 : [14:14]

d26 : [14:14]

d11 : [15:16]

d33 : [15:16]

d27 : [15:16]

d35 : [17:18]

d37 : [17:18]

d39 : [17:18]

Registered resources

SUB 14 1.4

SUB 13 1.4

MEM 18 27.0

MEM 17 27.0

MEM 16 27.0

MEM 15 27.0

MUL 12 6.8999999999999995

MUL 11 6.8999999999999995

MUL 10 6.8999999999999995

MUL 13 4.6

MUL 9 4.6

MUL 8 4.6

MUL 7 4.6

MUL 6 4.6

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

ADD 14 2.0

CMP 0 2.1

cost = 39.4

# lectureList

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50285:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/lectureLIST.dot

Scheduling scheduler-framework-master/graphs/lectureLIST.dot

Nr of Nodes : 0

No root in Graph found. Empty or cyclic graph

ASAP

%n

cost = 0.0

No leaf in Graph found. Empty or cyclic graph

ALAP

%n

cost = 0.0

# test

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59062:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/test.dot

Scheduling scheduler-framework-master/graphs/test.dot

Nr of Nodes : 0

No root in Graph found. Empty or cyclic graph

ASAP

%n

cost = 0.0

No leaf in Graph found. Empty or cyclic graph

ALAP

%n

cost = 0.0

# testCyclic

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59071:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/testCyclic.dot

Scheduling scheduler-framework-master/graphs/testCyclic.dot

Nr of Nodes : 0

No root in Graph found. Empty or cyclic graph

ASAP

%n

cost = 0.0

No leaf in Graph found. Empty or cyclic graph

ALAP

%n

cost = 0.0

# ADPCMn-decode-271-381

"C:\Program Files\Java\jdk-13.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64414:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\test1\out\production\test1" scheduler.Main graphs/ADPCMn-decode-271-381.dot

Scheduling graphs/ADPCMn-decode-271-381.dot

n0 (Shift):

successors

n10 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

n8 0

n2 (Sub):

successors

n0 0

n3 (Shift):

successors

n9 0

predecessors

n4 0

n4 (Mem):

successors

n3 0

n5 (Shift):

successors

n15 0

predecessors

n6 0

n7 0

n6 (Mem):

successors

n5 0

n7 (Sub):

successors

n5 0

n8 (Shift):

successors

n21 0

predecessors

n1 0

n9 (Or):

successors

n18 0

predecessors

n3 0

n10 0

n10 (And):

successors

n9 0

predecessors

n0 0

n11 0

n12 (Shift):

successors

n11 0

n11 (Sub):

successors

n10 0

predecessors

n12 0

n14 (Shift):

successors

n13 0

predecessors

n16 0

n13 (Or):

successors

n17 0

predecessors

n14 0

n15 0

n16 (Mem):

successors

n14 0

n15 (And):

successors

n13 0

predecessors

n19 0

n5 0

n18 (Mem):

predecessors

n9 0

n17 (Mem):

predecessors

n13 0

n19 (Sub):

successors

n15 0

predecessors

n20 0

n21 (Mem):

predecessors

n8 0

n20 (Shift):

successors

n19 0

n23 (Cmp):

n22 (Sub):

n25 (Cmp):

n24 (Sub):

n26 (Add):

Nr of Nodes : 27

ASAP

Found schedule of length 7

n1 : [0:1]

n2 : [0:0]

n4 : [0:1]

n6 : [0:1]

n7 : [0:0]

n20 : [0:0]

n12 : [0:0]

n23 : [0:0]

n22 : [0:0]

n25 : [0:0]

n24 : [0:0]

n16 : [0:1]

n26 : [0:0]

n19 : [1:1]

n11 : [1:1]

n14 : [2:2]

n0 : [2:2]

n3 : [2:2]

n5 : [2:2]

n8 : [2:2]

n15 : [3:3]

n21 : [3:4]

n10 : [3:3]

n13 : [4:4]

n9 : [4:4]

n18 : [5:6]

n17 : [5:6]

Registered resources

SH 2 10.0

SH 0 4.0

ADD 0 1.0

AND 3 4.0

OR 4 4.0

MEM 1 36.0

MEM 0 36.0

MEM 6 18.0

MEM 5 18.0

MEM 4 9.0

MEM 3 9.0

CMP 0 4.2

SUB 0 5.6

SUB 1 2.8

cost = 64.8

ALAP

Found schedule of length 7

n1 : [0:1]

n6 : [0:1]

n16 : [1:2]

n2 : [1:1]

n4 : [1:2]

n7 : [1:1]

n20 : [1:1]

n12 : [1:1]

n0 : [2:2]

n19 : [2:2]

n5 : [2:2]

n11 : [2:2]

n14 : [3:3]

n15 : [3:3]

n3 : [3:3]

n10 : [3:3]

n13 : [4:4]

n8 : [4:4]

n9 : [4:4]

n18 : [5:6]

n17 : [5:6]

n21 : [5:6]

n25 : [6:6]

n24 : [6:6]

n26 : [6:6]

n23 : [6:6]

n22 : [6:6]

Registered resources

ADD 6 1.0

SH 3 4.0

SH 2 4.0

SH 1 4.0

SH 4 2.0

AND 3 4.0

OR 4 4.0

MEM 1 36.0

MEM 6 27.0

MEM 5 27.0

MEM 2 18.0

MEM 0 18.0

CMP 6 4.2

SUB 6 2.8

SUB 2 2.8

SUB 1 2.8

cost = 56.0

# ADPCMn-decode-524-553

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=53860:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ADPCMn-decode-524-553.dot

Scheduling scheduler-framework-master/graphs/ADPCMn-decode-524-553.dot

n0 (Shift):

successors

n4 0

predecessors

n1 0

n1 (Mul):

successors

n0 0

predecessors

n2 0

n3 0

n2 (Mem):

successors

n1 0

n3 (Mem):

successors

n1 0

n4 (Add):

predecessors

n0 0

n5 (Add):

n6 (Cmp):

Nr of Nodes : 7

ASAP

Found schedule of length 8

n2 : [0:1]

n3 : [0:1]

n5 : [0:0]

n6 : [0:0]

n1 : [2:5]

n0 : [6:6]

n4 : [7:7]

Registered resources

SH 6 2.0

CMP 0 2.1

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

ADD 7 1.0

ADD 0 1.0

MEM 1 18.0

MEM 0 18.0

cost = 25.4

ALAP

Found schedule of length 8

n2 : [0:1]

n3 : [0:1]

n1 : [2:5]

n0 : [6:6]

n4 : [7:7]

n5 : [7:7]

n6 : [7:7]

Registered resources

SH 6 2.0

CMP 7 2.1

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

ADD 7 2.0

MEM 1 18.0

MEM 0 18.0

cost = 26.4

# ADPCMn-decode-559-599

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=53873:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ADPCMn-decode-559-599.dot

Scheduling scheduler-framework-master/graphs/ADPCMn-decode-559-599.dot

n0 (And):

successors

n5 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

n2 (Mem):

predecessors

n3 0

n3 (Shift):

successors

n2 0

predecessors

n4 0

n4 (Mem):

successors

n3 0

n5 (Cmp):

predecessors

n0 0

n6 (Cmp):

predecessors

n7 0

n7 (Add):

successors

n6 0

n8 (Add):

Nr of Nodes : 9

ASAP

Found schedule of length 5

n1 : [0:1]

n4 : [0:1]

n7 : [0:0]

n8 : [0:0]

n6 : [1:1]

n0 : [2:2]

n3 : [2:2]

n2 : [3:4]

n5 : [3:3]

Registered resources

CMP 3 2.1

CMP 1 2.1

AND 2 2.0

SH 2 2.0

ADD 0 2.0

MEM 1 18.0

MEM 0 18.0

MEM 4 9.0

MEM 3 9.0

cost = 26.1

ALAP

Found schedule of length 5

n4 : [0:1]

n1 : [1:2]

n3 : [2:2]

n0 : [3:3]

n2 : [3:4]

n7 : [3:3]

n5 : [4:4]

n6 : [4:4]

n8 : [4:4]

Registered resources

CMP 4 4.2

AND 3 2.0

SH 2 2.0

ADD 4 1.0

ADD 3 1.0

MEM 1 18.0

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 0 9.0

cost = 27.2

# ADPCMn-decode-631-729

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=53942:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ADPCMn-decode-631-729.dot

Scheduling scheduler-framework-master/graphs/ADPCMn-decode-631-729.dot

n0 (Sub):

successors

n7 0

predecessors

n1 0

n1 (Shift):

successors

n0 0

n2 (Shift):

successors

n7 0

predecessors

n3 0

n4 0

n3 (Mem):

successors

n2 0

n12 0

n4 (Sub):

successors

n2 0

n5 (Sub):

successors

n15 0

predecessors

n6 0

n6 (Shift):

successors

n5 0

n7 (And):

successors

n16 0

predecessors

n0 0

n2 0

n8 (Shift):

successors

n15 0

predecessors

n9 0

n10 0

n9 (Mem):

successors

n8 0

n10 (Sub):

successors

n8 0

n21 (Sub):

n20 (Cmp):

n12 (Shift):

successors

n11 0

predecessors

n3 0

n11 (Mem):

predecessors

n12 0

n22 (Add):

n14 (Shift):

successors

n13 0

n13 (Or):

predecessors

n14 0

n15 0

n16 (Or):

predecessors

n17 0

n7 0

n15 (And):

successors

n13 0

predecessors

n5 0

n8 0

n18 (Sub):

n17 (Shift):

successors

n16 0

n19 (Cmp):

Nr of Nodes : 23

ASAP

Found schedule of length 5

n1 : [0:0]

n3 : [0:1]

n4 : [0:0]

n6 : [0:0]

n9 : [0:1]

n10 : [0:0]

n21 : [0:0]

n20 : [0:0]

n22 : [0:0]

n14 : [0:0]

n18 : [0:0]

n17 : [0:0]

n19 : [0:0]

n0 : [1:1]

n5 : [1:1]

n2 : [2:2]

n8 : [2:2]

n12 : [2:2]

n15 : [3:3]

n7 : [3:3]

n11 : [3:4]

n13 : [4:4]

n16 : [4:4]

Registered resources

AND 3 4.0

ADD 0 1.0

SUB 0 5.6

SUB 1 2.8

CMP 0 4.2

MEM 1 18.0

MEM 0 18.0

MEM 4 9.0

MEM 3 9.0

OR 4 4.0

SH 0 8.0

SH 2 6.0

cost = 44.8

ALAP

Found schedule of length 5

n3 : [0:1]

n9 : [0:1]

n1 : [1:1]

n4 : [1:1]

n6 : [1:1]

n10 : [1:1]

n0 : [2:2]

n2 : [2:2]

n5 : [2:2]

n8 : [2:2]

n12 : [2:2]

n14 : [3:3]

n15 : [3:3]

n17 : [3:3]

n7 : [3:3]

n11 : [3:4]

n13 : [4:4]

n16 : [4:4]

n18 : [4:4]

n19 : [4:4]

n21 : [4:4]

n20 : [4:4]

n22 : [4:4]

Registered resources

AND 3 4.0

ADD 4 1.0

SUB 4 2.8

SUB 2 2.8

SUB 1 2.8

CMP 4 4.2

OR 4 4.0

MEM 1 18.0

MEM 0 18.0

MEM 4 9.0

MEM 3 9.0

SH 2 6.0

SH 3 4.0

SH 1 4.0

cost = 40.0

# ADPCMn-decode-771-791.dot

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=53962:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ADPCMn-decode-771-791.dot

Scheduling scheduler-framework-master/graphs/ADPCMn-decode-771-791.dot

n0 (Mem):

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n2 0

n2 (Sub):

successors

n1 0

n3 (Add):

n4 (Cmp):

Nr of Nodes : 5

ASAP

Found schedule of length 5

n2 : [0:0]

n3 : [0:0]

n4 : [0:0]

n1 : [1:2]

n0 : [3:4]

Registered resources

CMP 0 2.1

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

ADD 0 1.0

SUB 0 1.4

cost = 13.5

ALAP

Found schedule of length 5

n2 : [0:0]

n1 : [1:2]

n0 : [3:4]

n3 : [4:4]

n4 : [4:4]

Registered resources

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

CMP 4 2.1

ADD 4 1.0

SUB 0 1.4

cost = 13.5

# ADPCMn-decode-803-832

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=53971:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ADPCMn-decode-803-832.dot

Scheduling scheduler-framework-master/graphs/ADPCMn-decode-803-832.dot

n0 (Mem):

predecessors

n1 0

n1 (Shift):

successors

n0 0

predecessors

n2 0

n2 (Mul):

successors

n1 0

predecessors

n3 0

n3 (Sub):

successors

n2 0

predecessors

n4 0

n4 (Sub):

successors

n3 0

n5 (Add):

n6 (Cmp):

n7 (Add):

Nr of Nodes : 8

ASAP

Found schedule of length 9

n4 : [0:0]

n5 : [0:0]

n6 : [0:0]

n7 : [0:0]

n3 : [1:1]

n2 : [2:5]

n1 : [6:6]

n0 : [7:8]

Registered resources

MEM 8 9.0

MEM 7 9.0

SH 6 2.0

CMP 0 2.1

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

ADD 0 2.0

SUB 1 1.4

SUB 0 1.4

cost = 18.799999999999997

ALAP

Found schedule of length 9

n4 : [0:0]

n3 : [1:1]

n2 : [2:5]

n1 : [6:6]

n0 : [7:8]

n5 : [8:8]

n6 : [8:8]

n7 : [8:8]

Registered resources

MEM 8 9.0

MEM 7 9.0

SH 6 2.0

CMP 8 2.1

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

ADD 8 2.0

SUB 1 1.4

SUB 0 1.4

cost = 18.799999999999997

# AESrkgcyclic

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=54001:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/AESrkgcyclic.dot

Scheduling scheduler-framework-master/graphs/AESrkgcyclic.dot

d52 (Or):

successors

d53 0

predecessors

d51 0

d9 0

d44 0

d41 (And):

successors

d43 0

predecessors

d9 0

d39 0

d51 (Shift):

successors

d52 0

predecessors

d9 0

d49 0

d43 (Shift):

successors

d44 0

predecessors

d41 0

d9 0

d53 (Mem):

predecessors

d52 0

d9 0

d19 0

d31 (And):

successors

d33 0

predecessors

d9 0

d29 0

d34 (Or):

successors

d44 0

predecessors

d9 0

d33 0

d24 0

d56 (Add):

predecessors

d9 0

d44 (Or):

successors

d52 0

predecessors

d43 0

d34 0

d9 0

d33 (Shift):

successors

d34 0

predecessors

d31 0

d9 0

d22 (Mem):

successors

d24 0

d29 0

predecessors

d9 0

d13 (Shift):

successors

d15 0

predecessors

d9 0

d24 (And):

successors

d34 0

predecessors

d22 0

d9 0

d49 (Mem):

successors

d51 0

predecessors

d9 0

d48 0

d39 0

d38 (Add):

successors

d39 0

predecessors

d9 0

d15 (Mul):

successors

d19 0

predecessors

d9 0

d13 0

d59 (Add):

predecessors

d9 0

d48 (Add):

successors

d49 0

predecessors

d9 0

d29 (Mem):

successors

d31 0

d39 0

predecessors

d22 0

d9 0

d28 0

d18 (And):

successors

d19 0

predecessors

d9 0

d39 (Mem):

successors

d41 0

d49 0

predecessors

d9 0

d38 0

d29 0

d28 (Add):

successors

d29 0

predecessors

d9 0

d19 (Add):

successors

d53 0

predecessors

d9 0

d15 0

d18 0

d9 (Cmp):

successors

d52 0

d41 0

d51 0

d43 0

d53 0

d31 0

d56 0

d34 0

d22 0

d33 0

d44 0

d13 0

d24 0

d49 0

d38 0

d15 0

d59 0

d48 0

d29 0

d18 0

d39 0

d28 0

d19 0

Nr of Nodes : 24

ASAP

Found schedule of length 13

d9 : [0:0]

d56 : [1:1]

d22 : [1:2]

d13 : [1:1]

d38 : [1:1]

d59 : [1:1]

d48 : [1:1]

d18 : [1:1]

d28 : [1:1]

d15 : [2:5]

d24 : [3:3]

d29 : [3:4]

d31 : [5:5]

d39 : [5:6]

d33 : [6:6]

d19 : [6:6]

d41 : [7:7]

d34 : [7:7]

d49 : [7:8]

d43 : [8:8]

d51 : [9:9]

d44 : [9:9]

d52 : [10:10]

d53 : [11:12]

Registered resources

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

AND 7 2.0

AND 5 2.0

AND 3 2.0

AND 1 2.0

MEM 12 9.0

MEM 11 9.0

MEM 8 9.0

MEM 7 9.0

MEM 6 9.0

MEM 5 9.0

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

SH 9 2.0

SH 8 2.0

SH 6 2.0

SH 1 2.0

ADD 1 5.0

ADD 6 1.0

OR 10 2.0

OR 9 2.0

OR 7 2.0

CMP 0 2.1

cost = 24.400000000000002

ALAP

Found schedule of length 13

d9 : [0:0]

d22 : [1:2]

d28 : [2:2]

d29 : [3:4]

d38 : [4:4]

d13 : [5:5]

d39 : [5:6]

d31 : [6:6]

d15 : [6:9]

d48 : [6:6]

d41 : [7:7]

d33 : [7:7]

d24 : [7:7]

d49 : [7:8]

d43 : [8:8]

d34 : [8:8]

d51 : [9:9]

d44 : [9:9]

d18 : [9:9]

d52 : [10:10]

d19 : [10:10]

d53 : [11:12]

d56 : [12:12]

d59 : [12:12]

Registered resources

MUL 9 2.3

MUL 8 2.3

MUL 7 2.3

MUL 6 2.3

AND 7 4.0

AND 9 2.0

AND 6 2.0

MEM 12 9.0

MEM 11 9.0

MEM 8 9.0

MEM 7 9.0

MEM 6 9.0

MEM 5 9.0

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

SH 9 2.0

SH 8 2.0

SH 7 2.0

SH 5 2.0

ADD 12 2.0

ADD 10 1.0

ADD 6 1.0

ADD 4 1.0

ADD 2 1.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

CMP 0 2.1

cost = 23.400000000000002

# BLAKE256Digest-processBlock-160-230

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=54010:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/BLAKE256Digest-processBlock-160-230.dot

Scheduling scheduler-framework-master/graphs/BLAKE256Digest-processBlock-160-230.dot

n0 (Mem):

successors

n2 0

predecessors

n1 0

n1 (Add):

successors

n0 0

predecessors

n14 0

n2 (And):

successors

n7 0

predecessors

n0 0

n3 (Mem):

successors

n11 0

predecessors

n4 0

n4 (Add):

successors

n3 0

predecessors

n14 0

n5 (Or):

successors

n12 0

predecessors

n6 0

n7 0

n6 (Shift):

successors

n5 0

predecessors

n15 0

n7 (Shift):

successors

n5 0

predecessors

n2 0

n8 (Mem):

successors

n17 0

predecessors

n9 0

n9 (Add):

successors

n8 0

predecessors

n14 0

n10 (Shift):

successors

n13 0

predecessors

n11 0

n20 (Cmp):

n12 (Or):

successors

n18 0

predecessors

n13 0

n5 0

n11 (And):

successors

n10 0

predecessors

n3 0

n14 (Mul):

successors

n16 0

n1 0

n4 0

n9 0

n13 (Or):

successors

n12 0

predecessors

n17 0

n10 0

n16 (Mem):

successors

n15 0

predecessors

n14 0

n15 (And):

successors

n6 0

predecessors

n16 0

n18 (Mem):

predecessors

n12 0

n17 (And):

successors

n13 0

predecessors

n8 0

n19 (Add):

Nr of Nodes : 21

ASAP

Found schedule of length 13

n14 : [0:3]

n19 : [0:0]

n20 : [0:0]

n16 : [4:5]

n1 : [4:4]

n4 : [4:4]

n9 : [4:4]

n0 : [5:6]

n3 : [5:6]

n8 : [5:6]

n15 : [6:6]

n2 : [7:7]

n17 : [7:7]

n6 : [7:7]

n11 : [7:7]

n7 : [8:8]

n10 : [8:8]

n13 : [9:9]

n5 : [9:9]

n12 : [10:10]

n18 : [11:12]

Registered resources

SH 8 4.0

SH 7 2.0

AND 7 6.0

AND 6 2.0

CMP 0 2.1

MEM 5 36.0

MEM 6 27.0

MEM 12 9.0

MEM 11 9.0

MEM 4 9.0

ADD 4 3.0

ADD 0 1.0

OR 9 4.0

OR 10 2.0

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

MUL 0 2.3

cost = 57.4

ALAP

Found schedule of length 13

n14 : [0:3]

n1 : [4:4]

n4 : [4:4]

n16 : [5:6]

n0 : [5:6]

n3 : [5:6]

n9 : [5:5]

n8 : [6:7]

n15 : [7:7]

n2 : [7:7]

n11 : [7:7]

n17 : [8:8]

n6 : [8:8]

n7 : [8:8]

n10 : [8:8]

n13 : [9:9]

n5 : [9:9]

n12 : [10:10]

n18 : [11:12]

n19 : [12:12]

n20 : [12:12]

Registered resources

SH 8 6.0

AND 7 6.0

AND 8 2.0

MEM 6 36.0

MEM 5 27.0

MEM 12 9.0

MEM 11 9.0

MEM 7 9.0

CMP 12 2.1

ADD 4 2.0

ADD 12 1.0

ADD 5 1.0

OR 9 4.0

OR 10 2.0

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

MUL 0 2.3

cost = 58.4

# BLAKE256Digest-processBlock-189-1577

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62092:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/BLAKE256Digest-processBlock-189-1577.dot

Scheduling scheduler-framework-master/graphs/BLAKE256Digest-processBlock-189-1577.dot

n90 (Or):

successors

n63 0

n89 0

predecessors

n187 0

n186 0

n92 (Mem):

successors

n156 0

n229 0

predecessors

n94 0

n93 0

n91 (Add):

successors

n83 0

n89 0

predecessors

n111 0

n123 0

n94 (Add):

successors

n92 0

predecessors

n247 0

n93 (Mem):

successors

n92 0

n87 0

n76 0

n23 0

n33 0

n297 0

n35 0

n243 0

n174 0

n38 0

n130 0

n125 0

n235 0

n189 0

n215 0

n106 0

n96 (Shift):

successors

n3 0

predecessors

n233 0

n161 0

n95 (Shift):

successors

n3 0

predecessors

n161 0

n98 (Sub):

successors

n97 0

n97 (Shift):

successors

n14 0

predecessors

n0 0

n98 0

n99 (Shift):

successors

n196 0

predecessors

n100 0

n301 (Shift):

successors

n282 0

n302 (Shift):

successors

n201 0

n300 (Shift):

successors

n107 0

n305 (Add):

successors

n62 0

predecessors

n14 0

n304 0

n306 (Add):

n303 (Shift):

successors

n219 0

n304 (Or):

successors

n305 0

predecessors

n274 0

n234 0

n307 (Cmp):

n210 (Shift):

successors

n146 0

n213 (Sub):

successors

n212 0

n214 (Mem):

successors

n51 0

predecessors

n215 0

n211 (Shift):

successors

n110 0

predecessors

n295 0

n41 0

n212 (Shift):

successors

n222 0

predecessors

n122 0

n213 0

n217 (Mem):

successors

n124 0

predecessors

n37 0

n189 0

n218 (Add):

successors

n23 0

predecessors

n258 0

n215 (Mem):

successors

n214 0

n283 0

predecessors

n93 0

n73 0

n216 (Or):

successors

n132 0

n46 0

predecessors

n288 0

n116 0

n219 (Add):

successors

n38 0

predecessors

n303 0

n202 (Shift):

successors

n260 0

predecessors

n20 0

n203 (Sub):

successors

n170 0

n200 (Sub):

successors

n78 0

n201 (Add):

successors

n76 0

predecessors

n302 0

n206 (Or):

successors

n114 0

n113 0

predecessors

n135 0

n207 (Sub):

successors

n114 0

n204 (Or):

successors

n152 0

predecessors

n129 0

n205 0

n205 (Mem):

successors

n204 0

predecessors

n37 0

n106 0

n208 (Or):

successors

n6 0

n7 0

predecessors

n180 0

n237 0

n209 (Mem):

successors

n4 0

predecessors

n174 0

n37 0

n110 (Or):

successors

n25 0

n183 0

predecessors

n211 0

n40 0

n231 (Shift):

successors

n182 0

predecessors

n52 0

n111 (Add):

successors

n25 0

n91 0

predecessors

n196 0

n88 0

n232 (Shift):

successors

n182 0

predecessors

n287 0

n52 0

n230 (Sub):

successors

n145 0

n114 (Shift):

successors

n112 0

predecessors

n206 0

n207 0

n235 (Mem):

successors

n253 0

n234 0

predecessors

n263 0

n93 0

n115 (Shift):

successors

n140 0

predecessors

n82 0

n236 (Mem):

successors

n194 0

predecessors

n130 0

n37 0

n112 (Or):

successors

n100 0

n88 0

predecessors

n114 0

n113 0

n233 (Sub):

successors

n96 0

n113 (Shift):

successors

n112 0

predecessors

n206 0

n234 (Mem):

successors

n304 0

predecessors

n37 0

n235 0

n118 (Sub):

successors

n116 0

n239 (Add):

successors

n297 0

predecessors

n240 0

n119 (Or):

successors

n246 0

n127 0

predecessors

n121 0

n120 0

n116 (Shift):

successors

n216 0

predecessors

n118 0

n117 0

n237 (Or):

successors

n152 0

n208 0

predecessors

n220 0

n108 0

n117 (Or):

successors

n288 0

n116 0

predecessors

n137 0

n238 (Add):

successors

n68 0

n271 0

predecessors

n260 0

n220 (Shift):

successors

n237 0

predecessors

n221 0

n109 0

n100 (Or):

successors

n167 0

n99 0

predecessors

n163 0

n112 0

n221 (Sub):

successors

n220 0

n103 (Sub):

successors

n101 0

n224 (Shift):

successors

n120 0

predecessors

n225 0

n104 (Or):

successors

n276 0

predecessors

n105 0

n22 0

n225 (Or):

successors

n224 0

n290 0

predecessors

n164 0

n260 0

n101 (Shift):

successors

n289 0

predecessors

n103 0

n102 0

n222 (Or):

successors

n83 0

predecessors

n223 0

n212 0

n102 (Or):

successors

n176 0

n101 0

predecessors

n3 0

n280 0

n223 (Shift):

successors

n222 0

predecessors

n122 0

n107 (Add):

successors

n106 0

predecessors

n300 0

n228 (Shift):

successors

n177 0

n108 (Shift):

successors

n237 0

predecessors

n109 0

n229 (Mem):

successors

n58 0

predecessors

n37 0

n92 0

n105 (Mem):

successors

n104 0

predecessors

n243 0

n37 0

n226 (Mem):

successors

n49 0

predecessors

n37 0

n23 0

n106 (Mem):

successors

n275 0

n205 0

predecessors

n107 0

n93 0

n227 (Shift):

successors

n69 0

predecessors

n89 0

n109 (Or):

successors

n220 0

n108 0

predecessors

n64 0

n181 0

n10 (Shift):

successors

n171 0

predecessors

n12 0

n11 0

n260 (Or):

successors

n225 0

n238 0

predecessors

n202 0

n19 0

n140 (Or):

predecessors

n115 0

n138 0

n261 (Add):

successors

n121 0

predecessors

n266 0

n30 0

n12 (Sub):

successors

n10 0

n11 (Or):

successors

n245 0

n10 0

predecessors

n84 0

n14 (Or):

successors

n13 0

n305 0

predecessors

n265 0

n97 0

n132 (Or):

successors

n131 0

n259 0

predecessors

n136 0

n216 0

n253 (Mem):

successors

n124 0

predecessors

n235 0

n13 (Or):

successors

n279 0

n256 0

predecessors

n14 0

n15 0

n133 (Shift):

successors

n123 0

predecessors

n134 0

n77 0

n254 (Or):

predecessors

n158 0

n255 0

n16 (Or):

successors

n39 0

n150 0

predecessors

n18 0

n17 0

n130 (Mem):

successors

n236 0

n129 0

predecessors

n178 0

n93 0

n251 (Mem):

successors

n58 0

predecessors

n125 0

n15 (Add):

successors

n13 0

n31 0

predecessors

n1 0

n17 0

n131 (Shift):

successors

n56 0

predecessors

n132 0

n252 (Add):

successors

n28 0

predecessors

n197 0

n2 0

n18 (Add):

successors

n16 0

n54 0

predecessors

n164 0

n193 0

n136 (Add):

successors

n132 0

n197 0

predecessors

n47 0

n137 0

n257 (Sub):

successors

n256 0

n17 (Or):

successors

n16 0

n15 0

predecessors

n241 0

n42 0

n137 (Add):

successors

n136 0

n117 0

predecessors

n276 0

n258 (Shift):

successors

n218 0

n134 (Sub):

successors

n133 0

n255 (Shift):

successors

n254 0

predecessors

n159 0

n19 (Shift):

successors

n260 0

predecessors

n21 0

n20 0

n135 (Add):

successors

n163 0

n206 0

predecessors

n50 0

n256 (Shift):

successors

n148 0

predecessors

n13 0

n257 0

n138 (Shift):

successors

n140 0

predecessors

n82 0

n139 0

n259 (Shift):

successors

n56 0

predecessors

n132 0

n292 0

n139 (Sub):

successors

n138 0

n21 (Sub):

successors

n19 0

n20 (Or):

successors

n202 0

n19 0

predecessors

n165 0

n250 (Shift):

successors

n249 0

predecessors

n285 0

n28 0

n23 (Mem):

successors

n226 0

n22 0

predecessors

n93 0

n218 0

n22 (Mem):

successors

n104 0

predecessors

n23 0

n25 (Or):

successors

n24 0

n65 0

predecessors

n110 0

n111 0

n121 (Add):

successors

n199 0

n119 0

predecessors

n163 0

n261 0

n242 (Mem):

successors

n49 0

predecessors

n243 0

n24 (Shift):

successors

n64 0

predecessors

n25 0

n26 0

n122 (Or):

successors

n212 0

n223 0

predecessors

n59 0

n123 0

n243 (Mem):

successors

n242 0

n105 0

predecessors

n93 0

n282 0

n27 (Shift):

successors

n249 0

predecessors

n28 0

n240 (Shift):

successors

n239 0

n26 (Sub):

successors

n24 0

n120 (Or):

successors

n68 0

n119 0

predecessors

n224 0

n290 0

n241 (Shift):

successors

n17 0

predecessors

n43 0

n29 (Or):

successors

n151 0

n170 0

predecessors

n30 0

n31 0

n125 (Mem):

successors

n251 0

n157 0

predecessors

n126 0

n93 0

n246 (Shift):

successors

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predecessors

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n28 (Or):

successors

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predecessors

n262 0

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n126 (Add):

successors

n125 0

predecessors

n244 0

n247 (Shift):

successors

n94 0

n123 (Or):

successors

n122 0

n91 0

predecessors

n133 0

n185 0

n244 (Shift):

successors

n126 0

n124 (Or):

successors

n85 0

predecessors

n253 0

n217 0

n245 (Shift):

successors

n171 0

predecessors

n11 0

n129 (Mem):

successors

n204 0

predecessors

n130 0

n127 (Shift):

successors

n195 0

predecessors

n119 0

n128 0

n248 (Shift):

successors

n262 0

predecessors

n191 0

n128 (Sub):

successors

n127 0

n249 (Or):

successors

n280 0

predecessors

n27 0

n250 0

n30 (Or):

successors

n29 0

n261 0

predecessors

n8 0

n78 0

n32 (Mem):

successors

n266 0

predecessors

n33 0

n161 (Or):

successors

n96 0

n95 0

predecessors

n148 0

n162 0

n282 (Add):

successors

n243 0

predecessors

n301 0

n31 (Add):

successors

n29 0

n277 0

predecessors

n15 0

n195 0

n162 (Add):

successors

n161 0

n280 0

predecessors

n68 0

n262 0

n283 (Mem):

successors

n184 0

predecessors

n37 0

n215 0

n34 (Mem):

successors

n4 0

predecessors

n35 0

n280 (Add):

successors

n102 0

predecessors

n249 0

n162 0

n33 (Mem):

successors

n32 0

n270 0

predecessors

n177 0

n93 0

n160 (Sub):

successors

n158 0

n281 (Shift):

successors

n69 0

predecessors

n299 0

n89 0

n36 (Mem):

successors

n266 0

predecessors

n38 0

n37 0

n154 (Shift):

successors

n67 0

predecessors

n286 0

n271 0

n275 (Mem):

successors

n194 0

predecessors

n106 0

n35 (Mem):

successors

n173 0

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predecessors

n188 0

n93 0

n155 (Or):

successors

n166 0

predecessors

n156 0

n157 0

n276 (Add):

successors

n137 0

predecessors

n104 0

n38 (Mem):

successors

n36 0

n269 0

predecessors

n93 0

n219 0

n152 (Add):

successors

n54 0

predecessors

n237 0

n204 0

n273 (Mem):

successors

n70 0

predecessors

n297 0

n37 0

n37 (Mem):

successors

n81 0

n173 0

n283 0

n270 0

n36 0

n298 0

n273 0

n236 0

n157 0

n234 0

n217 0

n229 0

n226 0

n105 0

n205 0

n209 0

n153 (Shift):

successors

n67 0

predecessors

n271 0

n274 (Mem):

successors

n304 0

predecessors

n189 0

n158 (Shift):

successors

n254 0

predecessors

n159 0

n160 0

n279 (Shift):

successors

n148 0

predecessors

n13 0

n39 (Shift):

successors

n53 0

predecessors

n16 0

n159 (Or):

successors

n158 0

n255 0

predecessors

n169 0

n277 0

n156 (Mem):

successors

n155 0

predecessors

n92 0

n277 (Add):

successors

n159 0

predecessors

n143 0

n31 0

n157 (Mem):

successors

n155 0

predecessors

n37 0

n125 0

n278 (Shift):

successors

n48 0

predecessors

n45 0

n41 (Or):

successors

n211 0

n40 0

predecessors

n88 0

n40 (Shift):

successors

n110 0

predecessors

n41 0

n43 (Or):

successors

n241 0

n42 0

predecessors

n62 0

n171 0

n150 (Shift):

successors

n53 0

predecessors

n16 0

n272 0

n271 (Or):

successors

n154 0

n153 0

predecessors

n238 0

n42 (Shift):

successors

n17 0

predecessors

n43 0

n44 0

n151 (Shift):

successors

n169 0

predecessors

n29 0

n272 (Sub):

successors

n150 0

n45 (Or):

successors

n141 0

n278 0

predecessors

n46 0

n44 (Sub):

successors

n42 0

n270 (Mem):

successors

n268 0

predecessors

n37 0

n33 0

n47 (Add):

successors

n136 0

predecessors

n49 0

n48 0

n143 (Or):

successors

n277 0

predecessors

n144 0

n145 0

n264 (Shift):

successors

n263 0

n46 (Add):

successors

n45 0

n55 0

predecessors

n216 0

n144 (Shift):

successors

n143 0

predecessors

n198 0

n265 (Shift):

successors

n14 0

predecessors

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n49 (Or):

successors

n47 0

predecessors

n242 0

n226 0

n141 (Shift):

successors

n48 0

predecessors

n142 0

n45 0

n262 (Or):

successors

n28 0

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predecessors

n190 0

n248 0

n48 (Or):

successors

n47 0

n9 0

predecessors

n141 0

n278 0

n142 (Sub):

successors

n141 0

n263 (Add):

successors

n235 0

predecessors

n264 0

n147 (Add):

successors

n197 0

predecessors

n148 0

n149 0

n268 (Or):

successors

n267 0

predecessors

n269 0

n270 0

n148 (Or):

successors

n147 0

n161 0

predecessors

n279 0

n256 0

n269 (Mem):

successors

n268 0

predecessors

n38 0

n145 (Shift):

successors

n143 0

predecessors

n198 0

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n266 (Or):

successors

n261 0

predecessors

n36 0

n32 0

n146 (Add):

successors

n87 0

predecessors

n210 0

n267 (Add):

successors

n199 0

predecessors

n169 0

n268 0

n149 (Or):

successors

n147 0

predecessors

n172 0

n173 0

n0 (Or):

successors

n265 0

n97 0

predecessors

n1 0

n1 (Add):

successors

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n15 0

predecessors

n171 0

n2 (Add):

successors

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n3 0

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n3 (Or):

successors

n2 0

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predecessors

n96 0

n95 0

n4 (Or):

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n2 0

predecessors

n34 0

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n5 (Or):

predecessors

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n7 0

n6 (Shift):

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n5 0

predecessors

n208 0

n50 (Add):

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n135 0

predecessors

n51 0

n7 (Shift):

successors

n5 0

predecessors

n293 0

n208 0

n180 (Add):

successors

n208 0

predecessors

n181 0

n182 0

n8 (Shift):

successors

n30 0

predecessors

n9 0

n52 (Or):

successors

n231 0

n232 0

predecessors

n54 0

n53 0

n9 (Or):

successors

n8 0

n78 0

predecessors

n48 0

n55 0

n51 (Or):

successors

n50 0

predecessors

n298 0

n214 0

n54 (Add):

successors

n52 0

predecessors

n152 0

n18 0

n183 (Add):

successors

n163 0

predecessors

n110 0

n184 0

n53 (Or):

successors

n52 0

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predecessors

n39 0

n150 0

n184 (Or):

successors

n183 0

predecessors

n75 0

n283 0

n56 (Or):

successors

n55 0

n77 0

predecessors

n131 0

n259 0

n181 (Add):

successors

n180 0

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n53 0

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successors

n172 0

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n295 (Sub):

successors

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successors

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n175 (Add):

successors

n174 0

predecessors

n296 0

n296 (Shift):

successors

n175 0

n178 (Add):

successors

n130 0

predecessors

n179 0

n299 (Sub):

successors

n281 0

n179 (Shift):

successors

n178 0

n61 (Add):

successors

n59 0

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n69 0

n70 0

n60 (Add):

successors

n59 0

n77 0

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n63 0

n62 0

n290 (Shift):

successors

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n62 (Add):

successors

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successors

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n172 (Mem):

successors

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predecessors

n174 0

n293 (Sub):

successors

n7 0

n64 (Or):

successors

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n173 (Mem):

successors

n149 0

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n35 0

n37 0

n294 (Sub):

successors

n290 0

n67 (Or):

successors

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n66 0

predecessors

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n153 0

n170 (Shift):

successors

n169 0

predecessors

n29 0

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n291 (Shift):

successors

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n66 (Or):

successors

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n186 0

predecessors

n68 0

n67 0

n171 (Or):

successors

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predecessors

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successors

n259 0

n69 (Or):

successors

n61 0

n82 0

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n165 (Add):

successors

n164 0

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predecessors

n57 0

n286 (Sub):

successors

n154 0

n68 (Add):

successors

n162 0

n66 0

predecessors

n120 0

n238 0

n166 (Add):

successors

n164 0

predecessors

n155 0

n67 0

n287 (Sub):

successors

n232 0

n163 (Add):

successors

n121 0

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n135 0

n183 0

n284 (Sub):

successors

n187 0

n164 (Add):

successors

n18 0

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predecessors

n165 0

n166 0

n285 (Sub):

successors

n250 0

n169 (Or):

successors

n159 0

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predecessors

n151 0

n170 0

n167 (Shift):

successors

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predecessors

n100 0

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n288 (Shift):

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successors

n167 0

n289 (Or):

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successors

n61 0

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successors

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n71 (Add):

successors

n189 0

predecessors

n72 0

n74 (Shift):

successors

n73 0

n73 (Add):

successors

n215 0

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n74 0

n76 (Mem):

successors

n298 0

n75 0

predecessors

n201 0

n93 0

n75 (Mem):

successors

n184 0

predecessors

n76 0

n78 (Shift):

successors

n30 0

predecessors

n200 0

n9 0

n77 (Or):

successors

n133 0

n185 0

predecessors

n60 0

n56 0

n198 (Or):

successors

n144 0

n145 0

predecessors

n199 0

n195 0

n79 (Or):

successors

n63 0

predecessors

n81 0

n80 0

n199 (Add):

successors

n198 0

predecessors

n121 0

n267 0

n196 (Or):

successors

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predecessors

n167 0

n99 0

n197 (Add):

successors

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predecessors

n136 0

n147 0

n81 (Mem):

successors

n79 0

predecessors

n37 0

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n80 (Mem):

successors

n79 0

predecessors

n297 0

n83 (Add):

successors

n82 0

predecessors

n222 0

n91 0

n190 (Shift):

successors

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n191 0

n192 0

n82 (Or):

successors

n115 0

n138 0

predecessors

n69 0

n83 0

n191 (Or):

successors

n190 0

n248 0

predecessors

n196 0

n197 0

n85 (Add):

successors

n84 0

predecessors

n124 0

n84 (Add):

successors

n62 0

n11 0

predecessors

n85 0

n87 (Mem):

successors

n81 0

n86 0

predecessors

n146 0

n93 0

n194 (Or):

successors

n193 0

predecessors

n275 0

n236 0

n86 (Mem):

successors

n70 0

predecessors

n87 0

n195 (Or):

successors

n198 0

n31 0

predecessors

n246 0

n127 0

n89 (Or):

successors

n227 0

n281 0

predecessors

n90 0

n91 0

n192 (Sub):

successors

n190 0

n88 (Add):

successors

n111 0

n41 0

predecessors

n112 0

n193 (Add):

successors

n18 0

predecessors

n194 0

n64 0

n187 (Shift):

successors

n90 0

predecessors

n284 0

n66 0

n188 (Add):

successors

n35 0

predecessors

n291 0

n185 (Shift):

successors

n123 0

predecessors

n77 0

n186 (Shift):

successors

n90 0

predecessors

n66 0

n189 (Mem):

successors

n274 0

n217 0

predecessors

n93 0

n71 0

Nr of Nodes : 308

ASAP

Found schedule of length 43

n93 : [0:1]

n98 : [0:0]

n12 : [0:0]

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n258 : [0:0]

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n299 : [0:0]

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n146 : [1:1]

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n239 : [1:1]

n107 : [1:1]

n218 : [1:1]

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n87 : [2:3]

n76 : [2:3]

n23 : [2:3]

n33 : [2:3]

n297 : [2:3]

n243 : [2:3]

n35 : [2:3]

n174 : [2:3]

n130 : [2:3]

n38 : [2:3]

n235 : [2:3]

n125 : [2:3]

n189 : [2:3]

n215 : [2:3]

n106 : [2:3]

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n75 : [4:5]

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n298 : [4:5]

n273 : [4:5]

n251 : [4:5]

n274 : [4:5]

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n214 : [4:5]

n156 : [4:5]

n234 : [4:5]

n157 : [4:5]

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n80 : [4:5]

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n86 : [4:5]

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n105 : [4:5]

n205 : [4:5]

n209 : [4:5]

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n135 : [8:8]

n84 : [8:8]

n206 : [9:9]

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n20 : [9:9]

n11 : [9:9]

n114 : [10:10]

n202 : [10:10]

n288 : [10:10]

n113 : [10:10]

n19 : [10:10]

n245 : [10:10]

n116 : [10:10]

n10 : [10:10]

n112 : [11:11]

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n171 : [11:11]

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n225 : [18:18]

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n290 : [19:19]

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n13 : [22:22]

n9 : [22:22]

n66 : [22:22]

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n24 : [23:23]

n186 : [23:23]

n279 : [23:23]

n256 : [23:23]

n8 : [23:23]

n65 : [23:23]

n78 : [23:23]

n90 : [24:24]

n148 : [24:24]

n30 : [24:24]

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n147 : [25:25]

n63 : [25:25]

n261 : [25:25]

n193 : [25:25]

n121 : [26:26]

n197 : [26:26]

n18 : [26:26]

n60 : [26:26]

n16 : [27:27]

n119 : [27:27]

n191 : [27:27]

n77 : [27:27]

n133 : [28:28]

n185 : [28:28]

n246 : [28:28]

n39 : [28:28]

n190 : [28:28]

n127 : [28:28]

n248 : [28:28]

n150 : [28:28]

n262 : [29:29]

n123 : [29:29]

n195 : [29:29]

n53 : [29:29]

n91 : [30:30]

n162 : [30:30]

n31 : [30:30]

n181 : [30:30]

n29 : [31:31]

n161 : [31:31]

n89 : [31:31]

n109 : [31:31]

n220 : [32:32]

n108 : [32:32]

n96 : [32:32]

n95 : [32:32]

n227 : [32:32]

n151 : [32:32]

n170 : [32:32]

n281 : [32:32]

n69 : [33:33]

n169 : [33:33]

n3 : [33:33]

n237 : [33:33]

n152 : [34:34]

n2 : [34:34]

n267 : [34:34]

n61 : [34:34]

n199 : [35:35]

n252 : [35:35]

n59 : [35:35]

n54 : [35:35]

n198 : [36:36]

n122 : [36:36]

n28 : [36:36]

n52 : [36:36]

n231 : [37:37]

n144 : [37:37]

n232 : [37:37]

n27 : [37:37]

n145 : [37:37]

n212 : [37:37]

n223 : [37:37]

n250 : [37:37]

n143 : [38:38]

n222 : [38:38]

n249 : [38:38]

n182 : [38:38]

n277 : [39:39]

n83 : [39:39]

n180 : [39:39]

n280 : [39:39]

n159 : [40:40]

n102 : [40:40]

n82 : [40:40]

n208 : [40:40]

n176 : [41:41]

n158 : [41:41]

n115 : [41:41]

n255 : [41:41]

n101 : [41:41]

n6 : [41:41]

n7 : [41:41]

n138 : [41:41]

n254 : [42:42]

n289 : [42:42]

n5 : [42:42]

n140 : [42:42]

Registered resources

OR 6 32.0

OR 42 8.0

OR 40 8.0

OR 38 8.0

OR 36 8.0

OR 33 8.0

OR 31 8.0

OR 29 8.0

OR 27 8.0

OR 24 8.0

OR 22 8.0

OR 20 8.0

OR 18 8.0

OR 15 8.0

OR 13 8.0

OR 11 8.0

OR 9 8.0

CMP 0 2.1

SH 0 32.0

SH 41 16.0

SH 37 16.0

SH 32 16.0

SH 28 16.0

SH 23 16.0

SH 19 16.0

SH 14 16.0

SH 10 16.0

ADD 1 16.0

ADD 39 4.0

ADD 35 4.0

ADD 34 4.0

ADD 30 4.0

ADD 26 4.0

ADD 25 4.0

ADD 21 4.0

ADD 17 4.0

ADD 16 4.0

ADD 12 4.0

ADD 8 4.0

ADD 7 4.0

ADD 0 1.0

SUB 0 44.8

MEM 5 288.0

MEM 4 288.0

MEM 3 144.0

MEM 2 144.0

MEM 1 18.0

MEM 0 18.0

cost = 414.9

ALAP

Found schedule of length 43

n264 : [0:0]

n301 : [0:0]

n302 : [0:0]

n247 : [0:0]

n258 : [0:0]

n244 : [0:0]

n72 : [0:0]

n93 : [0:1]

n74 : [0:0]

n263 : [1:1]

n126 : [1:1]

n201 : [1:1]

n94 : [1:1]

n71 : [1:1]

n218 : [1:1]

n73 : [1:1]

n282 : [1:1]

n243 : [2:3]

n37 : [2:3]

n235 : [2:3]

n125 : [2:3]

n189 : [2:3]

n92 : [2:3]

n215 : [2:3]

n76 : [2:3]

n23 : [2:3]

n253 : [4:5]

n298 : [4:5]

n251 : [4:5]

n214 : [4:5]

n217 : [4:5]

n229 : [4:5]

n105 : [4:5]

n22 : [4:5]

n58 : [6:6]

n104 : [6:6]

n124 : [6:6]

n51 : [6:6]

n57 : [7:7]

n276 : [7:7]

n50 : [7:7]

n85 : [7:7]

n165 : [8:8]

n137 : [8:8]

n135 : [8:8]

n84 : [8:8]

n206 : [9:9]

n118 : [9:9]

n207 : [9:9]

n117 : [9:9]

n21 : [9:9]

n20 : [9:9]

n12 : [9:9]

n11 : [9:9]

n114 : [10:10]

n202 : [10:10]

n288 : [10:10]

n113 : [10:10]

n19 : [10:10]

n245 : [10:10]

n116 : [10:10]

n10 : [10:10]

n112 : [11:11]

n216 : [11:11]

n260 : [11:11]

n171 : [11:11]

n46 : [12:12]

n1 : [12:12]

n238 : [12:12]

n88 : [12:12]

n0 : [13:13]

n41 : [13:13]

n98 : [13:13]

n271 : [13:13]

n75 : [13:14]

n283 : [13:14]

n45 : [13:13]

n242 : [13:14]

n286 : [13:13]

n295 : [13:13]

n274 : [13:14]

n142 : [13:13]

n156 : [13:14]

n157 : [13:14]

n234 : [13:14]

n226 : [13:14]

n40 : [14:14]

n97 : [14:14]

n154 : [14:14]

n265 : [14:14]

n141 : [14:14]

n153 : [14:14]

n211 : [14:14]

n278 : [14:14]

n14 : [15:15]

n110 : [15:15]

n155 : [15:15]

n49 : [15:15]

n48 : [15:15]

n304 : [15:15]

n184 : [15:15]

n67 : [15:15]

n47 : [16:16]

n166 : [16:16]

n305 : [16:16]

n183 : [16:16]

n163 : [17:17]

n164 : [17:17]

n136 : [17:17]

n62 : [17:17]

n43 : [18:18]

n294 : [18:18]

n291 : [18:18]

n292 : [18:18]

n44 : [18:18]

n132 : [18:18]

n210 : [18:18]

n100 : [18:18]

n240 : [18:18]

n296 : [18:18]

n225 : [18:18]

n179 : [18:18]

n300 : [18:18]

n168 : [18:18]

n228 : [18:18]

n303 : [18:18]

n290 : [19:19]

n42 : [19:19]

n99 : [19:19]

n177 : [19:19]

n188 : [19:19]

n175 : [19:19]

n241 : [19:19]

n131 : [19:19]

n224 : [19:19]

n178 : [19:19]

n167 : [19:19]

n146 : [19:19]

n239 : [19:19]

n107 : [19:19]

n259 : [19:19]

n219 : [19:19]

n297 : [20:21]

n35 : [20:21]

n174 : [20:21]

n38 : [20:21]

n130 : [20:21]

n196 : [20:20]

n120 : [20:20]

n17 : [20:20]

n106 : [20:21]

n87 : [20:21]

n56 : [20:20]

n33 : [20:21]

n68 : [21:21]

n111 : [21:21]

n15 : [21:21]

n55 : [21:21]

n81 : [22:23]

n80 : [22:23]

n9 : [22:22]

n32 : [22:23]

n172 : [22:23]

n173 : [22:23]

n66 : [22:22]

n36 : [22:23]

n275 : [22:23]

n25 : [22:22]

n13 : [22:22]

n284 : [22:22]

n26 : [22:22]

n257 : [22:22]

n236 : [22:23]

n200 : [22:22]

n8 : [23:23]

n65 : [23:23]

n78 : [23:23]

n187 : [23:23]

n24 : [23:23]

n186 : [23:23]

n279 : [23:23]

n256 : [23:23]

n79 : [24:24]

n90 : [24:24]

n148 : [24:24]

n266 : [24:24]

n149 : [24:24]

n30 : [24:24]

n194 : [24:24]

n64 : [24:24]

n147 : [25:25]

n63 : [25:25]

n261 : [25:25]

n193 : [25:25]

n121 : [26:26]

n197 : [26:26]

n18 : [26:26]

n60 : [26:26]

n16 : [27:27]

n134 : [27:27]

n191 : [27:27]

n119 : [27:27]

n128 : [27:27]

n272 : [27:27]

n192 : [27:27]

n77 : [27:27]

n133 : [28:28]

n185 : [28:28]

n246 : [28:28]

n39 : [28:28]

n190 : [28:28]

n248 : [28:28]

n127 : [28:28]

n150 : [28:28]

n262 : [29:29]

n123 : [29:29]

n195 : [29:29]

n53 : [29:29]

n91 : [30:30]

n31 : [30:30]

n162 : [30:30]

n181 : [30:30]

n161 : [31:31]

n86 : [31:32]

n34 : [31:32]

n89 : [31:31]

n270 : [31:32]

n221 : [31:31]

n273 : [31:32]

n29 : [31:31]

n269 : [31:32]

n203 : [31:31]

n233 : [31:31]

n299 : [31:31]

n129 : [31:32]

n205 : [31:32]

n109 : [31:31]

n209 : [31:32]

n96 : [32:32]

n95 : [32:32]

n151 : [32:32]

n170 : [32:32]

n281 : [32:32]

n220 : [32:32]

n108 : [32:32]

n227 : [32:32]

n69 : [33:33]

n169 : [33:33]

n268 : [33:33]

n3 : [33:33]

n4 : [33:33]

n70 : [33:33]

n237 : [33:33]

n204 : [33:33]

n152 : [34:34]

n2 : [34:34]

n267 : [34:34]

n61 : [34:34]

n199 : [35:35]

n59 : [35:35]

n252 : [35:35]

n54 : [35:35]

n198 : [36:36]

n287 : [36:36]

n122 : [36:36]

n230 : [36:36]

n285 : [36:36]

n213 : [36:36]

n28 : [36:36]

n52 : [36:36]

n231 : [37:37]

n144 : [37:37]

n232 : [37:37]

n27 : [37:37]

n145 : [37:37]

n223 : [37:37]

n212 : [37:37]

n250 : [37:37]

n143 : [38:38]

n222 : [38:38]

n249 : [38:38]

n182 : [38:38]

n277 : [39:39]

n83 : [39:39]

n180 : [39:39]

n280 : [39:39]

n103 : [40:40]

n159 : [40:40]

n102 : [40:40]

n82 : [40:40]

n139 : [40:40]

n293 : [40:40]

n208 : [40:40]

n160 : [40:40]

n176 : [41:41]

n158 : [41:41]

n115 : [41:41]

n255 : [41:41]

n101 : [41:41]

n6 : [41:41]

n7 : [41:41]

n138 : [41:41]

n254 : [42:42]

n5 : [42:42]

n289 : [42:42]

n306 : [42:42]

n140 : [42:42]

n307 : [42:42]

Registered resources

OR 33 16.0

OR 24 16.0

OR 15 16.0

OR 42 8.0

OR 40 8.0

OR 38 8.0

OR 36 8.0

OR 31 8.0

OR 29 8.0

OR 27 8.0

OR 22 8.0

OR 20 8.0

OR 18 8.0

OR 13 8.0

OR 11 8.0

OR 9 8.0

OR 6 8.0

CMP 42 2.1

ADD 19 8.0

ADD 1 8.0

ADD 39 4.0

ADD 35 4.0

ADD 34 4.0

ADD 30 4.0

ADD 26 4.0

ADD 25 4.0

ADD 21 4.0

ADD 17 4.0

ADD 16 4.0

ADD 12 4.0

ADD 8 4.0

ADD 7 4.0

ADD 42 1.0

SH 41 16.0

SH 37 16.0

SH 32 16.0

SH 28 16.0

SH 23 16.0

SH 19 16.0

SH 18 16.0

SH 14 16.0

SH 10 16.0

SH 0 16.0

SUB 40 5.6

SUB 36 5.6

SUB 31 5.6

SUB 27 5.6

SUB 22 5.6

SUB 18 5.6

SUB 13 5.6

SUB 9 5.6

MEM 3 81.0

MEM 2 81.0

MEM 32 72.0

MEM 31 72.0

MEM 23 72.0

MEM 22 72.0

MEM 21 72.0

MEM 20 72.0

MEM 14 72.0

MEM 13 72.0

MEM 5 72.0

MEM 4 72.0

MEM 1 9.0

MEM 0 9.0

cost = 128.7

# ContrastFilter-filter-13-252

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62106:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/BLAKE256Digest-processBlock-189-1577.dot

Scheduling scheduler-framework-master/graphs/BLAKE256Digest-processBlock-189-1577.dot

n90 (Or):

successors

n63 0

n89 0

predecessors

n187 0

n186 0

n92 (Mem):

successors

n156 0

n229 0

predecessors

n94 0

n93 0

n91 (Add):

successors

n83 0

n89 0

predecessors

n111 0

n123 0

n94 (Add):

successors

n92 0

predecessors

n247 0

n93 (Mem):

successors

n92 0

n87 0

n76 0

n23 0

n33 0

n297 0

n35 0

n243 0

n174 0

n38 0

n130 0

n125 0

n235 0

n189 0

n215 0

n106 0

n96 (Shift):

successors

n3 0

predecessors

n233 0

n161 0

n95 (Shift):

successors

n3 0

predecessors

n161 0

n98 (Sub):

successors

n97 0

n97 (Shift):

successors

n14 0

predecessors

n0 0

n98 0

n99 (Shift):

successors

n196 0

predecessors

n100 0

n301 (Shift):

successors

n282 0

n302 (Shift):

successors

n201 0

n300 (Shift):

successors

n107 0

n305 (Add):

successors

n62 0

predecessors

n14 0

n304 0

n306 (Add):

n303 (Shift):

successors

n219 0

n304 (Or):

successors

n305 0

predecessors

n274 0

n234 0

n307 (Cmp):

n210 (Shift):

successors

n146 0

n213 (Sub):

successors

n212 0

n214 (Mem):

successors

n51 0

predecessors

n215 0

n211 (Shift):

successors

n110 0

predecessors

n295 0

n41 0

n212 (Shift):

successors

n222 0

predecessors

n122 0

n213 0

n217 (Mem):

successors

n124 0

predecessors

n37 0

n189 0

n218 (Add):

successors

n23 0

predecessors

n258 0

n215 (Mem):

successors

n214 0

n283 0

predecessors

n93 0

n73 0

n216 (Or):

successors

n132 0

n46 0

predecessors

n288 0

n116 0

n219 (Add):

successors

n38 0

predecessors

n303 0

n202 (Shift):

successors

n260 0

predecessors

n20 0

n203 (Sub):

successors

n170 0

n200 (Sub):

successors

n78 0

n201 (Add):

successors

n76 0

predecessors

n302 0

n206 (Or):

successors

n114 0

n113 0

predecessors

n135 0

n207 (Sub):

successors

n114 0

n204 (Or):

successors

n152 0

predecessors

n129 0

n205 0

n205 (Mem):

successors

n204 0

predecessors

n37 0

n106 0

n208 (Or):

successors

n6 0

n7 0

predecessors

n180 0

n237 0

n209 (Mem):

successors

n4 0

predecessors

n174 0

n37 0

n110 (Or):

successors

n25 0

n183 0

predecessors

n211 0

n40 0

n231 (Shift):

successors

n182 0

predecessors

n52 0

n111 (Add):

successors

n25 0

n91 0

predecessors

n196 0

n88 0

n232 (Shift):

successors

n182 0

predecessors

n287 0

n52 0

n230 (Sub):

successors

n145 0

n114 (Shift):

successors

n112 0

predecessors

n206 0

n207 0

n235 (Mem):

successors

n253 0

n234 0

predecessors

n263 0

n93 0

n115 (Shift):

successors

n140 0

predecessors

n82 0

n236 (Mem):

successors

n194 0

predecessors

n130 0

n37 0

n112 (Or):

successors

n100 0

n88 0

predecessors

n114 0

n113 0

n233 (Sub):

successors

n96 0

n113 (Shift):

successors

n112 0

predecessors

n206 0

n234 (Mem):

successors

n304 0

predecessors

n37 0

n235 0

n118 (Sub):

successors

n116 0

n239 (Add):

successors

n297 0

predecessors

n240 0

n119 (Or):

successors

n246 0

n127 0

predecessors

n121 0

n120 0

n116 (Shift):

successors

n216 0

predecessors

n118 0

n117 0

n237 (Or):

successors

n152 0

n208 0

predecessors

n220 0

n108 0

n117 (Or):

successors

n288 0

n116 0

predecessors

n137 0

n238 (Add):

successors

n68 0

n271 0

predecessors

n260 0

n220 (Shift):

successors

n237 0

predecessors

n221 0

n109 0

n100 (Or):

successors

n167 0

n99 0

predecessors

n163 0

n112 0

n221 (Sub):

successors

n220 0

n103 (Sub):

successors

n101 0

n224 (Shift):

successors

n120 0

predecessors

n225 0

n104 (Or):

successors

n276 0

predecessors

n105 0

n22 0

n225 (Or):

successors

n224 0

n290 0

predecessors

n164 0

n260 0

n101 (Shift):

successors

n289 0

predecessors

n103 0

n102 0

n222 (Or):

successors

n83 0

predecessors

n223 0

n212 0

n102 (Or):

successors

n176 0

n101 0

predecessors

n3 0

n280 0

n223 (Shift):

successors

n222 0

predecessors

n122 0

n107 (Add):

successors

n106 0

predecessors

n300 0

n228 (Shift):

successors

n177 0

n108 (Shift):

successors

n237 0

predecessors

n109 0

n229 (Mem):

successors

n58 0

predecessors

n37 0

n92 0

n105 (Mem):

successors

n104 0

predecessors

n243 0

n37 0

n226 (Mem):

successors

n49 0

predecessors

n37 0

n23 0

n106 (Mem):

successors

n275 0

n205 0

predecessors

n107 0

n93 0

n227 (Shift):

successors

n69 0

predecessors

n89 0

n109 (Or):

successors

n220 0

n108 0

predecessors

n64 0

n181 0

n10 (Shift):

successors

n171 0

predecessors

n12 0

n11 0

n260 (Or):

successors

n225 0

n238 0

predecessors

n202 0

n19 0

n140 (Or):

predecessors

n115 0

n138 0

n261 (Add):

successors

n121 0

predecessors

n266 0

n30 0

n12 (Sub):

successors

n10 0

n11 (Or):

successors

n245 0

n10 0

predecessors

n84 0

n14 (Or):

successors

n13 0

n305 0

predecessors

n265 0

n97 0

n132 (Or):

successors

n131 0

n259 0

predecessors

n136 0

n216 0

n253 (Mem):

successors

n124 0

predecessors

n235 0

n13 (Or):

successors

n279 0

n256 0

predecessors

n14 0

n15 0

n133 (Shift):

successors

n123 0

predecessors

n134 0

n77 0

n254 (Or):

predecessors

n158 0

n255 0

n16 (Or):

successors

n39 0

n150 0

predecessors

n18 0

n17 0

n130 (Mem):

successors

n236 0

n129 0

predecessors

n178 0

n93 0

n251 (Mem):

successors

n58 0

predecessors

n125 0

n15 (Add):

successors

n13 0

n31 0

predecessors

n1 0

n17 0

n131 (Shift):

successors

n56 0

predecessors

n132 0

n252 (Add):

successors

n28 0

predecessors

n197 0

n2 0

n18 (Add):

successors

n16 0

n54 0

predecessors

n164 0

n193 0

n136 (Add):

successors

n132 0

n197 0

predecessors

n47 0

n137 0

n257 (Sub):

successors

n256 0

n17 (Or):

successors

n16 0

n15 0

predecessors

n241 0

n42 0

n137 (Add):

successors

n136 0

n117 0

predecessors

n276 0

n258 (Shift):

successors

n218 0

n134 (Sub):

successors

n133 0

n255 (Shift):

successors

n254 0

predecessors

n159 0

n19 (Shift):

successors

n260 0

predecessors

n21 0

n20 0

n135 (Add):

successors

n163 0

n206 0

predecessors

n50 0

n256 (Shift):

successors

n148 0

predecessors

n13 0

n257 0

n138 (Shift):

successors

n140 0

predecessors

n82 0

n139 0

n259 (Shift):

successors

n56 0

predecessors

n132 0

n292 0

n139 (Sub):

successors

n138 0

n21 (Sub):

successors

n19 0

n20 (Or):

successors

n202 0

n19 0

predecessors

n165 0

n250 (Shift):

successors

n249 0

predecessors

n285 0

n28 0

n23 (Mem):

successors

n226 0

n22 0

predecessors

n93 0

n218 0

n22 (Mem):

successors

n104 0

predecessors

n23 0

n25 (Or):

successors

n24 0

n65 0

predecessors

n110 0

n111 0

n121 (Add):

successors

n199 0

n119 0

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predecessors

n243 0

n24 (Shift):

successors

n64 0

predecessors

n25 0

n26 0

n122 (Or):

successors

n212 0

n223 0

predecessors

n59 0

n123 0

n243 (Mem):

successors

n242 0

n105 0

predecessors

n93 0

n282 0

n27 (Shift):

successors

n249 0

predecessors

n28 0

n240 (Shift):

successors

n239 0

n26 (Sub):

successors

n24 0

n120 (Or):

successors

n68 0

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predecessors

n224 0

n290 0

n241 (Shift):

successors

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predecessors

n43 0

n29 (Or):

successors

n151 0

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predecessors

n30 0

n31 0

n125 (Mem):

successors

n251 0

n157 0

predecessors

n126 0

n93 0

n246 (Shift):

successors

n195 0

predecessors

n119 0

n28 (Or):

successors

n27 0

n250 0

predecessors

n262 0

n252 0

n126 (Add):

successors

n125 0

predecessors

n244 0

n247 (Shift):

successors

n94 0

n123 (Or):

successors

n122 0

n91 0

predecessors

n133 0

n185 0

n244 (Shift):

successors

n126 0

n124 (Or):

successors

n85 0

predecessors

n253 0

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n245 (Shift):

successors

n171 0

predecessors

n11 0

n129 (Mem):

successors

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predecessors

n130 0

n127 (Shift):

successors

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predecessors

n119 0

n128 0

n248 (Shift):

successors

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predecessors

n191 0

n128 (Sub):

successors

n127 0

n249 (Or):

successors

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predecessors

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n250 0

n30 (Or):

successors

n29 0

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predecessors

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n32 (Mem):

successors

n266 0

predecessors

n33 0

n161 (Or):

successors

n96 0

n95 0

predecessors

n148 0

n162 0

n282 (Add):

successors

n243 0

predecessors

n301 0

n31 (Add):

successors

n29 0

n277 0

predecessors

n15 0

n195 0

n162 (Add):

successors

n161 0

n280 0

predecessors

n68 0

n262 0

n283 (Mem):

successors

n184 0

predecessors

n37 0

n215 0

n34 (Mem):

successors

n4 0

predecessors

n35 0

n280 (Add):

successors

n102 0

predecessors

n249 0

n162 0

n33 (Mem):

successors

n32 0

n270 0

predecessors

n177 0

n93 0

n160 (Sub):

successors

n158 0

n281 (Shift):

successors

n69 0

predecessors

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n89 0

n36 (Mem):

successors

n266 0

predecessors

n38 0

n37 0

n154 (Shift):

successors

n67 0

predecessors

n286 0

n271 0

n275 (Mem):

successors

n194 0

predecessors

n106 0

n35 (Mem):

successors

n173 0

n34 0

predecessors

n188 0

n93 0

n155 (Or):

successors

n166 0

predecessors

n156 0

n157 0

n276 (Add):

successors

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predecessors

n104 0

n38 (Mem):

successors

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n93 0

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n152 (Add):

successors

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n273 (Mem):

successors

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predecessors

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n37 (Mem):

successors

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n283 0

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n157 0

n234 0

n217 0

n229 0

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n105 0

n205 0

n209 0

n153 (Shift):

successors

n67 0

predecessors

n271 0

n274 (Mem):

successors

n304 0

predecessors

n189 0

n158 (Shift):

successors

n254 0

predecessors

n159 0

n160 0

n279 (Shift):

successors

n148 0

predecessors

n13 0

n39 (Shift):

successors

n53 0

predecessors

n16 0

n159 (Or):

successors

n158 0

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predecessors

n169 0

n277 0

n156 (Mem):

successors

n155 0

predecessors

n92 0

n277 (Add):

successors

n159 0

predecessors

n143 0

n31 0

n157 (Mem):

successors

n155 0

predecessors

n37 0

n125 0

n278 (Shift):

successors

n48 0

predecessors

n45 0

n41 (Or):

successors

n211 0

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predecessors

n88 0

n40 (Shift):

successors

n110 0

predecessors

n41 0

n43 (Or):

successors

n241 0

n42 0

predecessors

n62 0

n171 0

n150 (Shift):

successors

n53 0

predecessors

n16 0

n272 0

n271 (Or):

successors

n154 0

n153 0

predecessors

n238 0

n42 (Shift):

successors

n17 0

predecessors

n43 0

n44 0

n151 (Shift):

successors

n169 0

predecessors

n29 0

n272 (Sub):

successors

n150 0

n45 (Or):

successors

n141 0

n278 0

predecessors

n46 0

n44 (Sub):

successors

n42 0

n270 (Mem):

successors

n268 0

predecessors

n37 0

n33 0

n47 (Add):

successors

n136 0

predecessors

n49 0

n48 0

n143 (Or):

successors

n277 0

predecessors

n144 0

n145 0

n264 (Shift):

successors

n263 0

n46 (Add):

successors

n45 0

n55 0

predecessors

n216 0

n144 (Shift):

successors

n143 0

predecessors

n198 0

n265 (Shift):

successors

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n49 (Or):

successors

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predecessors

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n141 (Shift):

successors

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n142 0

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n262 (Or):

successors

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n48 (Or):

successors

n47 0

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successors

n141 0

n263 (Add):

successors

n235 0

predecessors

n264 0

n147 (Add):

successors

n197 0

predecessors

n148 0

n149 0

n268 (Or):

successors

n267 0

predecessors

n269 0

n270 0

n148 (Or):

successors

n147 0

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predecessors

n279 0

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n269 (Mem):

successors

n268 0

predecessors

n38 0

n145 (Shift):

successors

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n198 0

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n266 (Or):

successors

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predecessors

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n146 (Add):

successors

n87 0

predecessors

n210 0

n267 (Add):

successors

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predecessors

n169 0

n268 0

n149 (Or):

successors

n147 0

predecessors

n172 0

n173 0

n0 (Or):

successors

n265 0

n97 0

predecessors

n1 0

n1 (Add):

successors

n0 0

n15 0

predecessors

n171 0

n2 (Add):

successors

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predecessors

n3 0

n4 0

n3 (Or):

successors

n2 0

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predecessors

n96 0

n95 0

n4 (Or):

successors

n2 0

predecessors

n34 0

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n5 (Or):

predecessors

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n6 (Shift):

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predecessors

n51 0

n7 (Shift):

successors

n5 0

predecessors

n293 0

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successors

n208 0

predecessors

n181 0

n182 0

n8 (Shift):

successors

n30 0

predecessors

n9 0

n52 (Or):

successors

n231 0

n232 0

predecessors

n54 0

n53 0

n9 (Or):

successors

n8 0

n78 0

predecessors

n48 0

n55 0

n51 (Or):

successors

n50 0

predecessors

n298 0

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n54 (Add):

successors

n52 0

predecessors

n152 0

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n183 (Add):

successors

n163 0

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n53 (Or):

successors

n52 0

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predecessors

n39 0

n150 0

n184 (Or):

successors

n183 0

predecessors

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n283 0

n56 (Or):

successors

n55 0

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predecessors

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n181 (Add):

successors

n180 0

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predecessors

n53 0

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n55 (Add):

successors

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n182 (Or):

successors

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successors

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successors

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n299 (Sub):

successors

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successors

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successors

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n60 (Add):

successors

n59 0

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n290 (Shift):

successors

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successors

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predecessors

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successors

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predecessors

n174 0

n293 (Sub):

successors

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n64 (Or):

successors

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n173 (Mem):

successors

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n294 (Sub):

successors

n290 0

n67 (Or):

successors

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n66 0

predecessors

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n170 (Shift):

successors

n169 0

predecessors

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n66 (Or):

successors

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n171 (Or):

successors

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n69 (Or):

successors

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successors

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predecessors

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n286 (Sub):

successors

n154 0

n68 (Add):

successors

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n166 (Add):

successors

n164 0

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n155 0

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successors

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n163 (Add):

successors

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n284 (Sub):

successors

n187 0

n164 (Add):

successors

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n285 (Sub):

successors

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successors

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successors

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n78 (Shift):

successors

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n77 (Or):

successors

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n60 0

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successors

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n196 (Or):

successors

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predecessors

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predecessors

n37 0

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n80 (Mem):

successors

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predecessors

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predecessors

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n82 (Or):

successors

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predecessors

n69 0

n83 0

n191 (Or):

successors

n190 0

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predecessors

n196 0

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predecessors

n124 0

n84 (Add):

successors

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n85 0

n87 (Mem):

successors

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predecessors

n146 0

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n194 (Or):

successors

n193 0

predecessors

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successors

n70 0

predecessors

n87 0

n195 (Or):

successors

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predecessors

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n89 (Or):

successors

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predecessors

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successors

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predecessors

n194 0

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n187 (Shift):

successors

n90 0

predecessors

n284 0

n66 0

n188 (Add):

successors

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predecessors

n291 0

n185 (Shift):

successors

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n77 0

n186 (Shift):

successors

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n66 0

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successors

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predecessors

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Nr of Nodes : 308

ASAP

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n193 : [25:25]

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n197 : [26:26]

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n248 : [28:28]

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n195 : [29:29]

n53 : [29:29]

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n31 : [30:30]

n181 : [30:30]

n29 : [31:31]

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n89 : [31:31]

n109 : [31:31]

n220 : [32:32]

n108 : [32:32]

n96 : [32:32]

n95 : [32:32]

n227 : [32:32]

n151 : [32:32]

n170 : [32:32]

n281 : [32:32]

n69 : [33:33]

n169 : [33:33]

n3 : [33:33]

n237 : [33:33]

n152 : [34:34]

n2 : [34:34]

n267 : [34:34]

n61 : [34:34]

n199 : [35:35]

n252 : [35:35]

n59 : [35:35]

n54 : [35:35]

n198 : [36:36]

n122 : [36:36]

n28 : [36:36]

n52 : [36:36]

n231 : [37:37]

n144 : [37:37]

n232 : [37:37]

n27 : [37:37]

n145 : [37:37]

n212 : [37:37]

n223 : [37:37]

n250 : [37:37]

n143 : [38:38]

n222 : [38:38]

n249 : [38:38]

n182 : [38:38]

n277 : [39:39]

n83 : [39:39]

n180 : [39:39]

n280 : [39:39]

n159 : [40:40]

n102 : [40:40]

n82 : [40:40]

n208 : [40:40]

n176 : [41:41]

n158 : [41:41]

n115 : [41:41]

n255 : [41:41]

n101 : [41:41]

n6 : [41:41]

n7 : [41:41]

n138 : [41:41]

n254 : [42:42]

n289 : [42:42]

n5 : [42:42]

n140 : [42:42]

Registered resources

OR 6 32.0

OR 42 8.0

OR 40 8.0

OR 38 8.0

OR 36 8.0

OR 33 8.0

OR 31 8.0

OR 29 8.0

OR 27 8.0

OR 24 8.0

OR 22 8.0

OR 20 8.0

OR 18 8.0

OR 15 8.0

OR 13 8.0

OR 11 8.0

OR 9 8.0

CMP 0 2.1

SH 0 32.0

SH 41 16.0

SH 37 16.0

SH 32 16.0

SH 28 16.0

SH 23 16.0

SH 19 16.0

SH 14 16.0

SH 10 16.0

ADD 1 16.0

ADD 39 4.0

ADD 35 4.0

ADD 34 4.0

ADD 30 4.0

ADD 26 4.0

ADD 25 4.0

ADD 21 4.0

ADD 17 4.0

ADD 16 4.0

ADD 12 4.0

ADD 8 4.0

ADD 7 4.0

ADD 0 1.0

SUB 0 44.8

MEM 5 288.0

MEM 4 288.0

MEM 3 144.0

MEM 2 144.0

MEM 1 18.0

MEM 0 18.0

cost = 414.9

ALAP

Found schedule of length 43

n264 : [0:0]

n301 : [0:0]

n302 : [0:0]

n247 : [0:0]

n258 : [0:0]

n244 : [0:0]

n72 : [0:0]

n93 : [0:1]

n74 : [0:0]

n263 : [1:1]

n126 : [1:1]

n201 : [1:1]

n94 : [1:1]

n71 : [1:1]

n218 : [1:1]

n73 : [1:1]

n282 : [1:1]

n243 : [2:3]

n37 : [2:3]

n235 : [2:3]

n125 : [2:3]

n189 : [2:3]

n92 : [2:3]

n215 : [2:3]

n76 : [2:3]

n23 : [2:3]

n253 : [4:5]

n298 : [4:5]

n251 : [4:5]

n214 : [4:5]

n217 : [4:5]

n229 : [4:5]

n105 : [4:5]

n22 : [4:5]

n58 : [6:6]

n104 : [6:6]

n124 : [6:6]

n51 : [6:6]

n57 : [7:7]

n276 : [7:7]

n50 : [7:7]

n85 : [7:7]

n165 : [8:8]

n137 : [8:8]

n135 : [8:8]

n84 : [8:8]

n206 : [9:9]

n118 : [9:9]

n207 : [9:9]

n117 : [9:9]

n21 : [9:9]

n20 : [9:9]

n12 : [9:9]

n11 : [9:9]

n114 : [10:10]

n202 : [10:10]

n288 : [10:10]

n113 : [10:10]

n19 : [10:10]

n245 : [10:10]

n116 : [10:10]

n10 : [10:10]

n112 : [11:11]

n216 : [11:11]

n260 : [11:11]

n171 : [11:11]

n46 : [12:12]

n1 : [12:12]

n238 : [12:12]

n88 : [12:12]

n0 : [13:13]

n41 : [13:13]

n98 : [13:13]

n271 : [13:13]

n75 : [13:14]

n283 : [13:14]

n45 : [13:13]

n242 : [13:14]

n286 : [13:13]

n295 : [13:13]

n274 : [13:14]

n142 : [13:13]

n156 : [13:14]

n157 : [13:14]

n234 : [13:14]

n226 : [13:14]

n40 : [14:14]

n97 : [14:14]

n154 : [14:14]

n265 : [14:14]

n141 : [14:14]

n153 : [14:14]

n211 : [14:14]

n278 : [14:14]

n14 : [15:15]

n110 : [15:15]

n155 : [15:15]

n49 : [15:15]

n48 : [15:15]

n304 : [15:15]

n184 : [15:15]

n67 : [15:15]

n47 : [16:16]

n166 : [16:16]

n305 : [16:16]

n183 : [16:16]

n163 : [17:17]

n164 : [17:17]

n136 : [17:17]

n62 : [17:17]

n43 : [18:18]

n294 : [18:18]

n291 : [18:18]

n292 : [18:18]

n44 : [18:18]

n132 : [18:18]

n210 : [18:18]

n100 : [18:18]

n240 : [18:18]

n296 : [18:18]

n225 : [18:18]

n179 : [18:18]

n300 : [18:18]

n168 : [18:18]

n228 : [18:18]

n303 : [18:18]

n290 : [19:19]

n42 : [19:19]

n99 : [19:19]

n177 : [19:19]

n188 : [19:19]

n175 : [19:19]

n241 : [19:19]

n131 : [19:19]

n224 : [19:19]

n178 : [19:19]

n167 : [19:19]

n146 : [19:19]

n239 : [19:19]

n107 : [19:19]

n259 : [19:19]

n219 : [19:19]

n297 : [20:21]

n35 : [20:21]

n174 : [20:21]

n38 : [20:21]

n130 : [20:21]

n196 : [20:20]

n120 : [20:20]

n17 : [20:20]

n106 : [20:21]

n87 : [20:21]

n56 : [20:20]

n33 : [20:21]

n68 : [21:21]

n111 : [21:21]

n15 : [21:21]

n55 : [21:21]

n81 : [22:23]

n80 : [22:23]

n9 : [22:22]

n32 : [22:23]

n172 : [22:23]

n173 : [22:23]

n66 : [22:22]

n36 : [22:23]

n275 : [22:23]

n25 : [22:22]

n13 : [22:22]

n284 : [22:22]

n26 : [22:22]

n257 : [22:22]

n236 : [22:23]

n200 : [22:22]

n8 : [23:23]

n65 : [23:23]

n78 : [23:23]

n187 : [23:23]

n24 : [23:23]

n186 : [23:23]

n279 : [23:23]

n256 : [23:23]

n79 : [24:24]

n90 : [24:24]

n148 : [24:24]

n266 : [24:24]

n149 : [24:24]

n30 : [24:24]

n194 : [24:24]

n64 : [24:24]

n147 : [25:25]

n63 : [25:25]

n261 : [25:25]

n193 : [25:25]

n121 : [26:26]

n197 : [26:26]

n18 : [26:26]

n60 : [26:26]

n16 : [27:27]

n134 : [27:27]

n191 : [27:27]

n119 : [27:27]

n128 : [27:27]

n272 : [27:27]

n192 : [27:27]

n77 : [27:27]

n133 : [28:28]

n185 : [28:28]

n246 : [28:28]

n39 : [28:28]

n190 : [28:28]

n248 : [28:28]

n127 : [28:28]

n150 : [28:28]

n262 : [29:29]

n123 : [29:29]

n195 : [29:29]

n53 : [29:29]

n91 : [30:30]

n31 : [30:30]

n162 : [30:30]

n181 : [30:30]

n161 : [31:31]

n86 : [31:32]

n34 : [31:32]

n89 : [31:31]

n270 : [31:32]

n221 : [31:31]

n273 : [31:32]

n29 : [31:31]

n269 : [31:32]

n203 : [31:31]

n233 : [31:31]

n299 : [31:31]

n129 : [31:32]

n205 : [31:32]

n109 : [31:31]

n209 : [31:32]

n96 : [32:32]

n95 : [32:32]

n151 : [32:32]

n170 : [32:32]

n281 : [32:32]

n220 : [32:32]

n108 : [32:32]

n227 : [32:32]

n69 : [33:33]

n169 : [33:33]

n268 : [33:33]

n3 : [33:33]

n4 : [33:33]

n70 : [33:33]

n237 : [33:33]

n204 : [33:33]

n152 : [34:34]

n2 : [34:34]

n267 : [34:34]

n61 : [34:34]

n199 : [35:35]

n59 : [35:35]

n252 : [35:35]

n54 : [35:35]

n198 : [36:36]

n287 : [36:36]

n122 : [36:36]

n230 : [36:36]

n285 : [36:36]

n213 : [36:36]

n28 : [36:36]

n52 : [36:36]

n231 : [37:37]

n144 : [37:37]

n232 : [37:37]

n27 : [37:37]

n145 : [37:37]

n223 : [37:37]

n212 : [37:37]

n250 : [37:37]

n143 : [38:38]

n222 : [38:38]

n249 : [38:38]

n182 : [38:38]

n277 : [39:39]

n83 : [39:39]

n180 : [39:39]

n280 : [39:39]

n103 : [40:40]

n159 : [40:40]

n102 : [40:40]

n82 : [40:40]

n139 : [40:40]

n293 : [40:40]

n208 : [40:40]

n160 : [40:40]

n176 : [41:41]

n158 : [41:41]

n115 : [41:41]

n255 : [41:41]

n101 : [41:41]

n6 : [41:41]

n7 : [41:41]

n138 : [41:41]

n254 : [42:42]

n5 : [42:42]

n289 : [42:42]

n306 : [42:42]

n140 : [42:42]

n307 : [42:42]

Registered resources

OR 33 16.0

OR 24 16.0

OR 15 16.0

OR 42 8.0

OR 40 8.0

OR 38 8.0

OR 36 8.0

OR 31 8.0

OR 29 8.0

OR 27 8.0

OR 22 8.0

OR 20 8.0

OR 18 8.0

OR 13 8.0

OR 11 8.0

OR 9 8.0

OR 6 8.0

CMP 42 2.1

ADD 19 8.0

ADD 1 8.0

ADD 39 4.0

ADD 35 4.0

ADD 34 4.0

ADD 30 4.0

ADD 26 4.0

ADD 25 4.0

ADD 21 4.0

ADD 17 4.0

ADD 16 4.0

ADD 12 4.0

ADD 8 4.0

ADD 7 4.0

ADD 42 1.0

SH 41 16.0

SH 37 16.0

SH 32 16.0

SH 28 16.0

SH 23 16.0

SH 19 16.0

SH 18 16.0

SH 14 16.0

SH 10 16.0

SH 0 16.0

SUB 40 5.6

SUB 36 5.6

SUB 31 5.6

SUB 27 5.6

SUB 22 5.6

SUB 18 5.6

SUB 13 5.6

SUB 9 5.6

MEM 3 81.0

MEM 2 81.0

MEM 32 72.0

MEM 31 72.0

MEM 23 72.0

MEM 22 72.0

MEM 21 72.0

MEM 20 72.0

MEM 14 72.0

MEM 13 72.0

MEM 5 72.0

MEM 4 72.0

MEM 1 9.0

MEM 0 9.0

cost = 128.7

# CubeHash512Digest-sixteenRounds-2-2891

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62117:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/CubeHash512Digest-sixteenRounds-2-2891.dot

Scheduling scheduler-framework-master/graphs/CubeHash512Digest-sixteenRounds-2-2891.dot

n90 (Or):

successors

n8 0

predecessors

n92 0

n91 0

n92 (Mem):

successors

n90 0

n118 0

predecessors

n475 0

n91 (Mem):

successors

n90 0

predecessors

n386 0

n94 (Mem):

successors

n93 0

predecessors

n4 0

n93 (Or):

successors

n403 0

predecessors

n25 0

n94 0

n96 (Or):

successors

n95 0

predecessors

n397 0

n29 0

n95 (Mem):

successors

n489 0

n206 0

n98 0

predecessors

n96 0

n98 (Add):

successors

n97 0

predecessors

n101 0

n95 0

n97 (Mem):

successors

n384 0

n135 0

predecessors

n98 0

n99 (Or):

successors

n219 0

predecessors

n100 0

n101 0

n0 (Mem):

successors

n87 0

n151 0

predecessors

n1 0

n1 (Add):

successors

n0 0

predecessors

n80 0

n52 0

n2 (Mem):

successors

n224 0

predecessors

n3 0

n3 (Or):

successors

n2 0

predecessors

n521 0

n365 0

n4 (Add):

successors

n94 0

predecessors

n5 0

n6 0

n5 (Mem):

successors

n221 0

n4 0

n222 0

predecessors

n429 0

n6 (Mem):

successors

n4 0

n179 0

predecessors

n338 0

n7 (Add):

successors

n437 0

predecessors

n8 0

n9 0

n8 (Mem):

successors

n7 0

n446 0

n447 0

predecessors

n90 0

n9 (Mem):

successors

n28 0

n7 0

predecessors

n272 0

n510 (Mem):

successors

n320 0

predecessors

n531 0

n511 (Or):

successors

n370 0

predecessors

n111 0

n512 0

n514 (Shift):

successors

n26 0

predecessors

n73 0

n515 (Shift):

successors

n451 0

predecessors

n350 0

n512 (Mem):

successors

n511 0

predecessors

n421 0

n513 (Shift):

successors

n205 0

predecessors

n35 0

n518 (Mem):

predecessors

n388 0

n519 (Or):

successors

n61 0

predecessors

n425 0

n184 0

n516 (Or):

successors

n269 0

predecessors

n450 0

n218 0

n517 (Or):

successors

n395 0

predecessors

n493 0

n196 0

n509 (Or):

successors

n508 0

predecessors

n394 0

n534 0

n500 (Mem):

successors

n499 0

n530 0

n498 0

n503 (Shift):

successors

n79 0

predecessors

n27 0

n504 (Mem):

predecessors

n505 0

n501 (Or):

successors

n405 0

predecessors

n342 0

n464 0

n502 (Or):

successors

n441 0

predecessors

n295 0

n216 0

n507 (Shift):

successors

n451 0

predecessors

n350 0

n508 (Mem):

successors

n254 0

predecessors

n509 0

n505 (Or):

successors

n504 0

predecessors

n540 0

n482 0

n506 (Mem):

predecessors

n472 0

n411 (Or):

successors

n410 0

predecessors

n300 0

n417 0

n532 (Mem):

successors

n354 0

n412 (Shift):

successors

n492 0

predecessors

n276 0

n533 (Mem):

predecessors

n75 0

n530 (Shift):

successors

n250 0

predecessors

n500 0

n410 (Mem):

successors

n486 0

n116 0

n539 0

predecessors

n411 0

n531 (Or):

successors

n510 0

predecessors

n141 0

n438 0

n415 (Add):

successors

n330 0

predecessors

n217 0

n437 0

n536 (Mem):

successors

n498 0

n416 (Or):

successors

n246 0

predecessors

n471 0

n470 0

n537 (Shift):

successors

n402 0

predecessors

n49 0

n413 (Shift):

successors

n378 0

predecessors

n178 0

n534 (Shift):

successors

n509 0

predecessors

n395 0

n414 (Shift):

successors

n273 0

predecessors

n275 0

n535 (Add):

successors

n359 0

predecessors

n234 0

n88 0

n419 (Shift):

successors

n79 0

predecessors

n27 0

n417 (Mem):

successors

n411 0

predecessors

n445 0

n538 (Mem):

successors

n525 0

n418 (Add):

successors

n342 0

predecessors

n231 0

n408 0

n539 (Shift):

successors

n199 0

predecessors

n410 0

n400 (Mem):

successors

n495 0

n313 0

n314 0

predecessors

n401 0

n521 (Shift):

successors

n3 0

predecessors

n52 0

n401 (Or):

successors

n400 0

predecessors

n121 0

n10 0

n522 (Mem):

successors

n471 0

n470 0

n109 0

n520 (Mem):

successors

n387 0

predecessors

n316 0

n404 (Mem):

successors

n59 0

predecessors

n366 0

n525 (Add):

successors

n288 0

predecessors

n178 0

n538 0

n405 (Mem):

successors

n114 0

n135 0

n113 0

predecessors

n501 0

n526 (Mem):

successors

n527 0

predecessors

n307 0

n402 (Or):

successors

n286 0

predecessors

n48 0

n537 0

n523 (Add):

successors

n172 0

predecessors

n121 0

n260 0

n403 (Mem):

predecessors

n93 0

n524 (Mem):

successors

n109 0

n408 (Mem):

successors

n463 0

n407 0

n418 0

predecessors

n491 0

n529 (Mem):

predecessors

n329 0

n409 (Or):

successors

n38 0

predecessors

n327 0

n437 0

n406 (Shift):

successors

n341 0

predecessors

n57 0

n527 (Or):

successors

n124 0

predecessors

n80 0

n526 0

n407 (Shift):

successors

n462 0

predecessors

n408 0

n528 (Shift):

successors

n304 0

predecessors

n260 0

n430 (Add):

successors

n65 0

predecessors

n431 0

n321 0

n312 (Shift):

successors

n42 0

predecessors

n156 0

n433 (Mem):

predecessors

n200 0

n313 (Shift):

successors

n284 0

predecessors

n400 0

n434 (Or):

successors

n275 0

predecessors

n169 0

n214 0

n310 (Mem):

successors

n461 0

n349 0

n309 0

n431 (Mem):

successors

n430 0

n452 0

n453 0

predecessors

n479 0

n311 (Mem):

successors

n309 0

n432 (Add):

successors

n74 0

predecessors

n347 0

n393 0

n316 (Or):

successors

n520 0

predecessors

n257 0

n317 0

n437 (Mem):

successors

n415 0

n409 0

predecessors

n7 0

n317 (Shift):

successors

n316 0

predecessors

n258 0

n438 (Shift):

successors

n531 0

predecessors

n142 0

n314 (Shift):

successors

n284 0

predecessors

n400 0

n435 (Add):

successors

n33 0

predecessors

n49 0

n436 0

n315 (Or):

successors

n46 0

predecessors

n153 0

n478 0

n436 (Mem):

successors

n435 0

n318 (Shift):

successors

n468 0

predecessors

n319 0

n439 (Mem):

predecessors

n440 0

n319 (Mem):

successors

n210 0

n469 0

n318 0

n540 (Mem):

successors

n505 0

predecessors

n236 0

n301 (Shift):

successors

n293 0

predecessors

n302 0

n422 (Shift):

successors

n421 0

predecessors

n69 0

n543 (Mem):

predecessors

n186 0

n302 (Mem):

successors

n122 0

n301 0

n428 0

predecessors

n245 0

n423 (Shift):

successors

n421 0

predecessors

n69 0

n544 (Add):

n420 (Or):

successors

n140 0

predecessors

n17 0

n102 0

n541 (Mem):

predecessors

n60 0

n300 (Mem):

successors

n411 0

n376 0

predecessors

n123 0

n421 (Or):

successors

n512 0

predecessors

n422 0

n423 0

n542 (Shift):

successors

n263 0

predecessors

n152 0

n305 (Mem):

successors

n183 0

predecessors

n220 0

n426 (Mem):

successors

n363 0

predecessors

n427 0

n306 (Shift):

successors

n242 0

predecessors

n46 0

n427 (Add):

successors

n426 0

predecessors

n159 0

n478 0

n303 (Mem):

successors

n391 0

predecessors

n304 0

n424 (Shift):

successors

n240 0

predecessors

n299 0

n545 (Cmp):

n304 (Or):

successors

n303 0

predecessors

n259 0

n528 0

n425 (Shift):

successors

n519 0

predecessors

n185 0

n309 (Add):

successors

n194 0

predecessors

n310 0

n311 0

n307 (Or):

successors

n526 0

predecessors

n167 0

n308 0

n428 (Shift):

successors

n293 0

predecessors

n302 0

n308 (Shift):

successors

n307 0

predecessors

n168 0

n429 (Or):

successors

n5 0

predecessors

n373 0

n65 0

n330 (Mem):

successors

n329 0

predecessors

n415 0

n451 (Or):

successors

n107 0

predecessors

n515 0

n507 0

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predecessors

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successors

n148 0

predecessors

n462 0

n42 (Or):

successors

n41 0

predecessors

n155 0

n312 0

n151 (Add):

successors

n482 0

predecessors

n152 0

n0 0

n272 (Add):

successors

n9 0

predecessors

n275 0

n33 0

n393 (Mem):

successors

n148 0

n432 0

predecessors

n494 0

n45 (Add):

successors

n442 0

predecessors

n47 0

n46 0

n390 (Shift):

successors

n131 0

predecessors

n16 0

n44 (Add):

successors

n43 0

predecessors

n348 0

n370 0

n270 (Add):

successors

n209 0

predecessors

n54 0

n371 0

n391 (Or):

successors

n152 0

predecessors

n303 0

n74 0

n47 (Mem):

successors

n233 0

n45 0

predecessors

n369 0

n143 (Mem):

successors

n81 0

n282 0

n281 0

predecessors

n144 0

n264 (Mem):

successors

n352 0

predecessors

n265 0

n385 (Mem):

successors

n384 0

predecessors

n492 0

n46 (Mem):

successors

n399 0

n306 0

n45 0

predecessors

n315 0

n144 (Or):

successors

n143 0

predecessors

n398 0

n239 0

n265 (Or):

successors

n264 0

predecessors

n255 0

n339 0

n386 (Or):

successors

n91 0

predecessors

n477 0

n138 0

n49 (Mem):

successors

n48 0

n537 0

n435 0

n141 (Shift):

successors

n531 0

predecessors

n142 0

n262 (Mem):

successors

n261 0

predecessors

n195 0

n383 (Shift):

successors

n30 0

predecessors

n356 0

n48 (Shift):

successors

n402 0

predecessors

n49 0

n142 (Mem):

successors

n141 0

n361 0

n438 0

predecessors

n148 0

n263 (Or):

successors

n132 0

predecessors

n467 0

n542 0

n384 (Or):

successors

n258 0

predecessors

n385 0

n97 0

n147 (Shift):

successors

n145 0

predecessors

n480 0

n268 (Shift):

successors

n334 0

predecessors

n18 0

n389 (Shift):

successors

n131 0

predecessors

n16 0

n148 (Or):

successors

n142 0

predecessors

n392 0

n393 0

n269 (Mem):

successors

n53 0

predecessors

n516 0

n145 (Or):

successors

n105 0

predecessors

n147 0

n146 0

n266 (Or):

successors

n171 0

predecessors

n346 0

n456 0

n387 (Or):

successors

n16 0

predecessors

n520 0

n43 0

n146 (Shift):

successors

n145 0

predecessors

n480 0

n267 (Shift):

successors

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n226 0

n388 (Or):

successors

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predecessors

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n50 (Shift):

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n180 (Mem):

successors

n179 0

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n52 (Mem):

successors

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n53 0

n51 (Mem):

successors

n496 0

n379 0

n50 0

n54 (Mem):

successors

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n55 0

n183 (Or):

successors

n182 0

predecessors

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n190 0

n53 (Or):

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n52 0

predecessors

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predecessors

n185 0

n56 (Shift):

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n58 (Mem):

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n59 0

n176 (Add):

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n194 0

n193 0

n297 (Shift):

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n57 (Mem):

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n177 (Shift):

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n378 0

predecessors

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n298 (Shift):

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n299 0

n174 (Shift):

successors

n173 0

predecessors

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n295 (Shift):

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n59 (Or):

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n179 (Or):

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n60 (Or):

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n65 0

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n62 (Mem):

successors

n60 0

predecessors

n34 0

n65 (Mem):

successors

n63 0

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predecessors

n430 0

n172 (Mem):

successors

n396 0

n170 0

predecessors

n523 0

n293 (Or):

successors

n292 0

predecessors

n301 0

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n64 (Mem):

successors

n63 0

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n179 0

n173 (Or):

successors

n180 0

predecessors

n174 0

n175 0

n294 (Or):

successors

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predecessors

n158 0

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n67 (Mem):

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predecessors

n455 0

n170 (Or):

successors

n350 0

predecessors

n172 0

n171 0

n291 (Or):

successors

n193 0

predecessors

n277 0

n119 0

n66 (Add):

successors

n36 0

predecessors

n68 0

n67 0

n171 (Mem):

successors

n170 0

predecessors

n266 0

n292 (Mem):

successors

n377 0

predecessors

n293 0

n69 (Mem):

successors

n164 0

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n423 0

predecessors

n31 0

n165 (Or):

successors

n280 0

predecessors

n166 0

n40 0

n286 (Mem):

successors

n285 0

predecessors

n402 0

n68 (Mem):

successors

n479 0

n66 0

predecessors

n181 0

n166 (Shift):

successors

n165 0

predecessors

n38 0

n287 (Add):

successors

n111 0

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n288 0

n256 0

n163 (Mem):

successors

n352 0

n495 0

predecessors

n164 0

n284 (Or):

successors

n283 0

predecessors

n313 0

n314 0

n164 (Add):

successors

n163 0

predecessors

n69 0

n169 0

n285 (Or):

successors

n276 0

predecessors

n286 0

n194 0

n169 (Mem):

successors

n164 0

n434 0

predecessors

n149 0

n167 (Shift):

successors

n307 0

predecessors

n168 0

n288 (Mem):

successors

n287 0

n372 0

predecessors

n525 0

n168 (Mem):

successors

n167 0

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predecessors

n229 0

n289 (Add):

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predecessors

n252 0

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n70 (Shift):

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n128 0

predecessors

n71 0

n72 (Add):

successors

n190 0

predecessors

n74 0

n73 0

n71 (Mem):

successors

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n70 0

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n74 (Mem):

successors

n72 0

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predecessors

n432 0

n73 (Mem):

successors

n296 0

n72 0

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predecessors

n87 0

n76 (Mem):

successors

n75 0

predecessors

n22 0

n75 (Or):

successors

n533 0

predecessors

n76 0

n77 0

n78 (Mem):

successors

n87 0

predecessors

n79 0

n77 (Mem):

successors

n75 0

predecessors

n154 0

n198 (Mem):

successors

n261 0

predecessors

n199 0

n79 (Or):

successors

n78 0

predecessors

n503 0

n419 0

n199 (Or):

successors

n198 0

predecessors

n486 0

n539 0

n196 (Mem):

successors

n122 0

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predecessors

n197 0

n197 (Add):

successors

n196 0

predecessors

n299 0

n490 0

n81 (Add):

successors

n80 0

predecessors

n143 0

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n80 (Mem):

successors

n1 0

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predecessors

n81 0

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n82 0

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n72 0

n82 (Mem):

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n83 0

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predecessors

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predecessors

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n84 (Mem):

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n37 0

n87 (Or):

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n194 (Mem):

successors

n176 0

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n309 0

n86 (Mem):

successors

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n195 (Add):

successors

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n89 (Or):

successors

n88 0

predecessors

n126 0

n127 0

n192 (Or):

successors

n191 0

predecessors

n225 0

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n88 (Mem):

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n477 0

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predecessors

n89 0

n193 (Mem):

successors

n176 0

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n458 0

predecessors

n291 0

n187 (Mem):

successors

n186 0

predecessors

n483 0

n188 (Mem):

successors

n475 0

n245 0

predecessors

n189 0

n185 (Mem):

successors

n376 0

n425 0

n184 0

predecessors

n232 0

n186 (Or):

successors

n543 0

predecessors

n187 0

n130 0

n189 (Add):

successors

n188 0

predecessors

n466 0

n457 0

Nr of Nodes : 546

ASAP

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n466 : [0:1]

n488 : [0:1]

n500 : [0:1]

n522 : [0:1]

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n524 : [0:1]

n249 : [0:1]

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n162 : [2:2]

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n496 : [2:2]

n177 : [2:2]

n298 : [2:2]

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n469 : [2:2]

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n158 : [23:23]

n335 : [23:23]

n376 : [23:23]

n399 : [23:23]

n514 : [23:23]

n415 : [23:23]

n515 : [23:23]

n237 : [23:23]

n116 : [23:23]

n139 : [23:23]

n238 : [23:23]

n513 : [23:23]

n216 : [23:23]

n539 : [23:23]

n63 : [23:23]

n40 : [23:23]

n271 : [23:23]

n151 : [23:23]

n195 : [23:23]

n45 : [23:23]

n390 : [23:23]

n23 : [23:23]

n221 : [23:23]

n166 : [23:23]

n24 : [23:23]

n483 : [23:23]

n345 : [23:23]

n389 : [23:23]

n268 : [23:23]

n467 : [23:23]

n222 : [23:23]

n486 : [23:23]

n542 : [23:23]

n228 : [23:23]

n306 : [23:23]

n427 : [23:23]

n425 : [23:23]

n507 : [23:23]

n94 : [24:25]

n12 : [24:25]

n77 : [24:25]

n330 : [24:25]

n451 : [24:24]

n474 : [24:25]

n375 : [24:25]

n133 : [24:25]

n199 : [24:24]

n131 : [24:24]

n334 : [24:24]

n115 : [24:25]

n236 : [24:24]

n519 : [24:24]

n190 : [24:25]

n62 : [24:25]

n84 : [24:25]

n294 : [24:24]

n22 : [24:24]

n165 : [24:24]

n187 : [24:25]

n220 : [24:24]

n242 : [24:24]

n482 : [24:25]

n262 : [24:25]

n26 : [24:24]

n263 : [24:24]

n442 : [24:25]

n426 : [24:25]

n502 : [24:24]

n205 : [24:24]

n227 : [24:24]

n76 : [25:26]

n280 : [25:26]

n198 : [25:26]

n132 : [25:26]

n473 : [25:26]

n130 : [25:26]

n61 : [25:26]

n25 : [25:26]

n364 : [25:26]

n540 : [25:26]

n441 : [25:26]

n241 : [25:26]

n201 : [25:26]

n107 : [25:26]

n305 : [25:26]

n204 : [25:26]

n60 : [27:27]

n93 : [27:27]

n21 : [27:27]

n183 : [27:27]

n75 : [27:27]

n261 : [27:27]

n363 : [27:27]

n440 : [27:27]

n472 : [27:27]

n186 : [27:27]

n15 : [27:27]

n200 : [27:27]

n388 : [27:27]

n106 : [27:27]

n505 : [27:27]

n329 : [27:27]

n20 : [28:29]

n182 : [28:29]

n14 : [28:29]

n362 : [28:29]

n543 : [28:29]

n433 : [28:29]

n533 : [28:29]

n541 : [28:29]

n497 : [28:29]

n465 : [28:29]

n504 : [28:29]

n403 : [28:29]

n518 : [28:29]

n529 : [28:29]

n439 : [28:29]

n506 : [28:29]

Registered resources

OR 27 32.0

OR 24 32.0

OR 20 32.0

OR 17 32.0

OR 13 32.0

OR 10 32.0

OR 6 32.0

OR 3 32.0

CMP 0 2.1

SH 23 64.0

SH 16 64.0

SH 9 64.0

SH 2 64.0

ADD 23 16.0

ADD 16 16.0

ADD 9 16.0

ADD 2 16.0

ADD 0 1.0

MEM 25 288.0

MEM 18 288.0

MEM 11 288.0

MEM 4 288.0

MEM 1 288.0

MEM 0 288.0

MEM 29 144.0

MEM 28 144.0

MEM 26 144.0

MEM 24 144.0

MEM 22 144.0

MEM 21 144.0

MEM 19 144.0

MEM 17 144.0

MEM 15 144.0

MEM 14 144.0

MEM 12 144.0

MEM 10 144.0

MEM 8 144.0

MEM 7 144.0

MEM 5 144.0

MEM 3 144.0

cost = 402.1

ALAP

Found schedule of length 30

n290 : [0:1]

n71 : [0:1]

n51 : [0:1]

n480 : [0:1]

n86 : [0:1]

n49 : [0:1]

n356 : [0:1]

n500 : [0:1]

n522 : [0:1]

n178 : [0:1]

n310 : [0:1]

n299 : [0:1]

n248 : [0:1]

n457 : [0:1]

n226 : [0:1]

n319 : [0:1]

n381 : [1:2]

n380 : [1:2]

n532 : [1:2]

n357 : [1:2]

n355 : [1:2]

n311 : [1:2]

n536 : [1:2]

n436 : [1:2]

n538 : [1:2]

n150 : [1:2]

n490 : [1:2]

n485 : [1:2]

n466 : [1:2]

n488 : [1:2]

n249 : [1:2]

n524 : [1:2]

n70 : [2:2]

n50 : [2:2]

n161 : [2:2]

n382 : [2:2]

n162 : [2:2]

n297 : [2:2]

n177 : [2:2]

n496 : [2:2]

n298 : [2:2]

n471 : [2:2]

n499 : [2:2]

n332 : [2:2]

n530 : [2:2]

n333 : [2:2]

n537 : [2:2]

n413 : [2:2]

n318 : [2:2]

n85 : [2:2]

n470 : [2:2]

n383 : [2:2]

n461 : [2:2]

n48 : [2:2]

n147 : [2:2]

n367 : [2:2]

n225 : [2:2]

n368 : [2:2]

n267 : [2:2]

n146 : [2:2]

n349 : [2:2]

n129 : [2:2]

n424 : [2:2]

n469 : [2:2]

n30 : [3:3]

n55 : [3:3]

n160 : [3:3]

n331 : [3:3]

n210 : [3:3]

n197 : [3:3]

n235 : [3:3]

n378 : [3:3]

n379 : [3:3]

n354 : [3:3]

n498 : [3:3]

n416 : [3:3]

n435 : [3:3]

n215 : [3:3]

n250 : [3:3]

n192 : [3:3]

n484 : [3:3]

n460 : [3:3]

n240 : [3:3]

n120 : [3:3]

n247 : [3:3]

n189 : [3:3]

n145 : [3:3]

n487 : [3:3]

n366 : [3:3]

n525 : [3:3]

n468 : [3:3]

n402 : [3:3]

n149 : [3:3]

n128 : [3:3]

n309 : [3:3]

n109 : [3:3]

n32 : [4:5]

n54 : [4:5]

n481 : [4:5]

n33 : [4:5]

n231 : [4:5]

n397 : [4:5]

n353 : [4:5]

n493 : [4:5]

n196 : [4:5]

n230 : [4:5]

n214 : [4:5]

n277 : [4:5]

n398 : [4:5]

n476 : [4:5]

n234 : [4:5]

n239 : [4:5]

n119 : [4:5]

n191 : [4:5]

n194 : [4:5]

n286 : [4:5]

n100 : [4:5]

n188 : [4:5]

n29 : [4:5]

n169 : [4:5]

n246 : [4:5]

n126 : [4:5]

n101 : [4:5]

n288 : [4:5]

n404 : [4:5]

n108 : [4:5]

n127 : [4:5]

n105 : [4:5]

n96 : [6:6]

n491 : [6:6]

n31 : [6:6]

n89 : [6:6]

n291 : [6:6]

n99 : [6:6]

n144 : [6:6]

n372 : [6:6]

n59 : [6:6]

n285 : [6:6]

n351 : [6:6]

n434 : [6:6]

n104 : [6:6]

n245 : [6:6]

n229 : [6:6]

n517 : [6:6]

n95 : [7:8]

n371 : [7:8]

n88 : [7:8]

n193 : [7:8]

n143 : [7:8]

n275 : [7:8]

n58 : [7:8]

n69 : [7:8]

n276 : [7:8]

n252 : [7:8]

n395 : [7:8]

n302 : [7:8]

n256 : [7:8]

n168 : [7:8]

n408 : [7:8]

n219 : [7:8]

n282 : [9:9]

n281 : [9:9]

n253 : [9:9]

n374 : [9:9]

n251 : [9:9]

n394 : [9:9]

n274 : [9:9]

n450 : [9:9]

n213 : [9:9]

n477 : [9:9]

n412 : [9:9]

n255 : [9:9]

n212 : [9:9]

n459 : [9:9]

n218 : [9:9]

n339 : [9:9]

n534 : [9:9]

n138 : [9:9]

n414 : [9:9]

n458 : [9:9]

n463 : [9:9]

n301 : [9:9]

n422 : [9:9]

n444 : [9:9]

n489 : [9:9]

n423 : [9:9]

n167 : [9:9]

n206 : [9:9]

n449 : [9:9]

n428 : [9:9]

n407 : [9:9]

n308 : [9:9]

n98 : [10:10]

n181 : [10:10]

n11 : [10:10]

n176 : [10:10]

n273 : [10:10]

n494 : [10:10]

n279 : [10:10]

n137 : [10:10]

n475 : [10:10]

n211 : [10:10]

n535 : [10:10]

n516 : [10:10]

n418 : [10:10]

n509 : [10:10]

n81 : [10:10]

n293 : [10:10]

n272 : [10:10]

n492 : [10:10]

n270 : [10:10]

n462 : [10:10]

n386 : [10:10]

n287 : [10:10]

n265 : [10:10]

n122 : [10:10]

n164 : [10:10]

n203 : [10:10]

n244 : [10:10]

n421 : [10:10]

n322 : [10:10]

n443 : [10:10]

n289 : [10:10]

n307 : [10:10]

n92 : [11:12]

n91 : [11:12]

n9 : [11:12]

n10 : [11:12]

n97 : [11:12]

n111 : [11:12]

n136 : [11:12]

n157 : [11:12]

n278 : [11:12]

n512 : [11:12]

n359 : [11:12]

n80 : [11:12]

n392 : [11:12]

n393 : [11:12]

n292 : [11:12]

n264 : [11:12]

n385 : [11:12]

n121 : [11:12]

n243 : [11:12]

n68 : [11:12]

n342 : [11:12]

n163 : [11:12]

n125 : [11:12]

n202 : [11:12]

n269 : [11:12]

n321 : [11:12]

n464 : [11:12]

n526 : [11:12]

n348 : [11:12]

n508 : [11:12]

n208 : [11:12]

n209 : [11:12]

n90 : [13:13]

n53 : [13:13]

n352 : [13:13]

n254 : [13:13]

n384 : [13:13]

n455 : [13:13]

n511 : [13:13]

n28 : [13:13]

n148 : [13:13]

n401 : [13:13]

n343 : [13:13]

n377 : [13:13]

n207 : [13:13]

n479 : [13:13]

n501 : [13:13]

n527 : [13:13]

n52 : [14:15]

n8 : [14:15]

n370 : [14:15]

n260 : [14:15]

n67 : [14:15]

n57 : [14:15]

n27 : [14:15]

n142 : [14:15]

n400 : [14:15]

n258 : [14:15]

n324 : [14:15]

n156 : [14:15]

n431 : [14:15]

n124 : [14:15]

n405 : [14:15]

n347 : [14:15]

n56 : [16:16]

n155 : [16:16]

n452 : [16:16]

n174 : [16:16]

n175 : [16:16]

n114 : [16:16]

n257 : [16:16]

n312 : [16:16]

n313 : [16:16]

n456 : [16:16]

n453 : [16:16]

n113 : [16:16]

n454 : [16:16]

n438 : [16:16]

n317 : [16:16]

n314 : [16:16]

n259 : [16:16]

n337 : [16:16]

n419 : [16:16]

n141 : [16:16]

n521 : [16:16]

n323 : [16:16]

n346 : [16:16]

n365 : [16:16]

n344 : [16:16]

n503 : [16:16]

n325 : [16:16]

n446 : [16:16]

n326 : [16:16]

n447 : [16:16]

n406 : [16:16]

n528 : [16:16]

n1 : [17:17]

n3 : [17:17]

n7 : [17:17]

n495 : [17:17]

n110 : [17:17]

n79 : [17:17]

n430 : [17:17]

n112 : [17:17]

n432 : [17:17]

n531 : [17:17]

n135 : [17:17]

n338 : [17:17]

n118 : [17:17]

n316 : [17:17]

n336 : [17:17]

n358 : [17:17]

n83 : [17:17]

n173 : [17:17]

n42 : [17:17]

n66 : [17:17]

n44 : [17:17]

n341 : [17:17]

n284 : [17:17]

n361 : [17:17]

n103 : [17:17]

n445 : [17:17]

n266 : [17:17]

n123 : [17:17]

n328 : [17:17]

n523 : [17:17]

n369 : [17:17]

n304 : [17:17]

n0 : [18:19]

n2 : [18:19]

n6 : [18:19]

n180 : [18:19]

n74 : [18:19]

n283 : [18:19]

n360 : [18:19]

n78 : [18:19]

n36 : [18:19]

n153 : [18:19]

n373 : [18:19]

n510 : [18:19]

n39 : [18:19]

n17 : [18:19]

n478 : [18:19]

n134 : [18:19]

n437 : [18:19]

n117 : [18:19]

n417 : [18:19]

n82 : [18:19]

n41 : [18:19]

n172 : [18:19]

n43 : [18:19]

n65 : [18:19]

n171 : [18:19]

n47 : [18:19]

n340 : [18:19]

n300 : [18:19]

n102 : [18:19]

n520 : [18:19]

n327 : [18:19]

n303 : [18:19]

n87 : [20:20]

n170 : [20:20]

n391 : [20:20]

n232 : [20:20]

n320 : [20:20]

n224 : [20:20]

n411 : [20:20]

n420 : [20:20]

n387 : [20:20]

n233 : [20:20]

n179 : [20:20]

n19 : [20:20]

n448 : [20:20]

n315 : [20:20]

n409 : [20:20]

n429 : [20:20]

n5 : [21:22]

n73 : [21:22]

n64 : [21:22]

n140 : [21:22]

n35 : [21:22]

n46 : [21:22]

n38 : [21:22]

n16 : [21:22]

n152 : [21:22]

n185 : [21:22]

n350 : [21:22]

n18 : [21:22]

n159 : [21:22]

n223 : [21:22]

n410 : [21:22]

n217 : [21:22]

n184 : [23:23]

n295 : [23:23]

n296 : [23:23]

n158 : [23:23]

n335 : [23:23]

n399 : [23:23]

n514 : [23:23]

n515 : [23:23]

n237 : [23:23]

n238 : [23:23]

n139 : [23:23]

n216 : [23:23]

n513 : [23:23]

n539 : [23:23]

n40 : [23:23]

n271 : [23:23]

n390 : [23:23]

n23 : [23:23]

n24 : [23:23]

n166 : [23:23]

n221 : [23:23]

n389 : [23:23]

n268 : [23:23]

n345 : [23:23]

n467 : [23:23]

n486 : [23:23]

n222 : [23:23]

n542 : [23:23]

n228 : [23:23]

n306 : [23:23]

n425 : [23:23]

n507 : [23:23]

n4 : [24:24]

n72 : [24:24]

n34 : [24:24]

n154 : [24:24]

n396 : [24:24]

n451 : [24:24]

n13 : [24:24]

n199 : [24:24]

n131 : [24:24]

n37 : [24:24]

n334 : [24:24]

n236 : [24:24]

n376 : [24:24]

n415 : [24:24]

n116 : [24:24]

n519 : [24:24]

n63 : [24:24]

n195 : [24:24]

n151 : [24:24]

n294 : [24:24]

n45 : [24:24]

n22 : [24:24]

n165 : [24:24]

n242 : [24:24]

n220 : [24:24]

n263 : [24:24]

n26 : [24:24]

n483 : [24:24]

n427 : [24:24]

n227 : [24:24]

n502 : [24:24]

n205 : [24:24]

n94 : [25:26]

n76 : [25:26]

n280 : [25:26]

n12 : [25:26]

n77 : [25:26]

n132 : [25:26]

n198 : [25:26]

n473 : [25:26]

n330 : [25:26]

n133 : [25:26]

n375 : [25:26]

n474 : [25:26]

n130 : [25:26]

n115 : [25:26]

n61 : [25:26]

n190 : [25:26]

n62 : [25:26]

n84 : [25:26]

n25 : [25:26]

n187 : [25:26]

n441 : [25:26]

n364 : [25:26]

n540 : [25:26]

n262 : [25:26]

n482 : [25:26]

n241 : [25:26]

n442 : [25:26]

n201 : [25:26]

n305 : [25:26]

n426 : [25:26]

n107 : [25:26]

n204 : [25:26]

n60 : [27:27]

n93 : [27:27]

n21 : [27:27]

n183 : [27:27]

n75 : [27:27]

n261 : [27:27]

n363 : [27:27]

n440 : [27:27]

n15 : [27:27]

n186 : [27:27]

n472 : [27:27]

n200 : [27:27]

n388 : [27:27]

n106 : [27:27]

n505 : [27:27]

n329 : [27:27]

n20 : [28:29]

n182 : [28:29]

n14 : [28:29]

n362 : [28:29]

n433 : [28:29]

n543 : [28:29]

n533 : [28:29]

n541 : [28:29]

n497 : [28:29]

n465 : [28:29]

n504 : [28:29]

n403 : [28:29]

n518 : [28:29]

n529 : [28:29]

n439 : [28:29]

n506 : [28:29]

n544 : [29:29]

n545 : [29:29]

Registered resources

OR 27 32.0

OR 24 32.0

OR 20 32.0

OR 17 32.0

OR 13 32.0

OR 10 32.0

OR 6 32.0

OR 3 32.0

CMP 29 2.1

SH 23 64.0

SH 16 64.0

SH 9 64.0

SH 2 64.0

ADD 24 16.0

ADD 17 16.0

ADD 10 16.0

ADD 3 16.0

ADD 29 1.0

MEM 26 288.0

MEM 25 288.0

MEM 19 288.0

MEM 18 288.0

MEM 12 288.0

MEM 11 288.0

MEM 5 288.0

MEM 4 288.0

MEM 1 288.0

MEM 29 144.0

MEM 28 144.0

MEM 22 144.0

MEM 21 144.0

MEM 15 144.0

MEM 14 144.0

MEM 8 144.0

MEM 7 144.0

MEM 2 144.0

MEM 0 144.0

cost = 402.1

# ECOH256Digest-AES2RoundsAll-2-666

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62126:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ECOH256Digest-AES2RoundsAll-2-666.dot

Scheduling scheduler-framework-master/graphs/ECOH256Digest-AES2RoundsAll-2-666.dot

n90 (Mem):

successors

n53 0

predecessors

n24 0

n91 0

n92 (Mem):

successors

n114 0

predecessors

n24 0

n45 0

n91 (Add):

successors

n90 0

predecessors

n27 0

n94 (Add):

successors

n93 0

n160 0

predecessors

n124 0

n93 (Mem):

predecessors

n94 0

n96 (Or):

successors

n165 0

predecessors

n40 0

n97 0

n95 (Shift):

successors

n39 0

predecessors

n155 0

n10 (Or):

successors

n141 0

n145 0

n9 0

n62 0

predecessors

n147 0

n106 0

n98 (Or):

successors

n30 0

predecessors

n115 0

n116 0

n97 (Mem):

successors

n96 0

predecessors

n47 0

n136 0

n140 (Mem):

successors

n175 0

predecessors

n24 0

n117 0

n12 (Or):

successors

n11 0

predecessors

n70 0

n71 0

n11 (Or):

successors

n22 0

predecessors

n13 0

n12 0

n99 (Mem):

successors

n34 0

predecessors

n68 0

n100 0

n14 (And):

successors

n83 0

predecessors

n15 0

n132 (Shift):

successors

n131 0

predecessors

n150 0

n13 (Mem):

successors

n11 0

predecessors

n85 0

n32 0

n133 (Shift):

successors

n173 0

predecessors

n134 0

n16 (And):

successors

n76 0

predecessors

n17 0

n130 (Mem):

successors

n146 0

predecessors

n24 0

n125 0

n15 (Or):

successors

n14 0

n50 0

n119 0

n56 0

predecessors

n29 0

n162 0

n131 (And):

successors

n71 0

predecessors

n132 0

n18 (Or):

successors

n34 0

predecessors

n19 0

n20 0

n136 (And):

successors

n97 0

predecessors

n137 0

n17 (Shift):

successors

n16 0

predecessors

n75 0

n137 (Shift):

successors

n136 0

predecessors

n6 0

n134 (Mem):

successors

n133 0

predecessors

n24 0

n72 0

n19 (Mem):

successors

n18 0

predecessors

n175 0

n41 0

n135 (Add):

successors

n64 0

predecessors

n27 0

n138 (Add):

successors

n155 0

predecessors

n27 0

n139 (Add):

successors

n75 0

predecessors

n27 0

n21 (Shift):

successors

n84 0

predecessors

n22 0

n20 (Mem):

successors

n18 0

predecessors

n47 0

n113 0

n23 (Mem):

successors

n77 0

predecessors

n25 0

n24 0

n22 (Or):

successors

n28 0

n112 0

n21 0

n42 0

predecessors

n124 0

n11 0

n25 (Add):

successors

n23 0

predecessors

n27 0

n121 (Mem):

successors

n70 0

predecessors

n41 0

n77 0

n24 (Mem):

successors

n90 0

n92 0

n81 0

n150 0

n75 0

n140 0

n64 0

n23 0

n88 0

n171 0

n36 0

n155 0

n166 0

n130 0

n142 0

n153 0

n158 0

n134 0

n168 0

n149 0

n122 (And):

successors

n108 0

predecessors

n141 0

n27 (Shift):

successors

n91 0

n72 0

n51 0

n43 0

n54 0

n87 0

n172 0

n151 0

n45 0

n25 0

n154 0

n143 0

n26 0

n37 0

n125 0

n135 0

n129 0

n138 0

n117 0

n139 0

n26 (Add):

successors

n153 0

predecessors

n27 0

n120 (Mem):

successors

n110 0

predecessors

n68 0

n61 0

n29 (Or):

successors

n15 0

predecessors

n30 0

n31 0

n125 (Add):

successors

n130 0

predecessors

n27 0

n28 (Shift):

successors

n170 0

predecessors

n22 0

n126 (Mem):

successors

n147 0

predecessors

n127 0

n32 0

n123 (Shift):

successors

n113 0

predecessors

n158 0

n124 (Mem):

successors

n94 0

n22 0

n129 (Add):

successors

n168 0

predecessors

n27 0

n127 (And):

successors

n126 0

predecessors

n80 0

n128 (Or):

successors

n147 0

predecessors

n57 0

n82 0

n30 (Or):

successors

n29 0

predecessors

n98 0

n67 0

n32 (Mem):

successors

n35 0

n13 0

n174 0

n103 0

n126 0

n60 0

n74 0

n31 0

n161 (Cmp):

predecessors

n66 0

n31 (Mem):

successors

n29 0

predecessors

n32 0

n33 0

n162 (Mem):

successors

n15 0

n102 0

n34 (Or):

successors

n7 0

predecessors

n18 0

n99 0

n33 (And):

successors

n31 0

predecessors

n63 0

n160 (Cmp):

predecessors

n94 0

n36 (Mem):

predecessors

n24 0

n38 0

n37 0

n154 (Add):

successors

n166 0

predecessors

n27 0

n35 (Mem):

successors

n7 0

predecessors

n39 0

n32 0

n155 (Mem):

successors

n95 0

predecessors

n24 0

n138 0

n38 (Or):

successors

n36 0

predecessors

n74 0

n73 0

n152 (Shift):

successors

n69 0

predecessors

n153 0

n37 (Add):

successors

n36 0

predecessors

n27 0

n153 (Mem):

successors

n152 0

predecessors

n24 0

n26 0

n158 (Mem):

successors

n123 0

predecessors

n24 0

n151 0

n39 (And):

successors

n35 0

predecessors

n95 0

n159 (And):

successors

n174 0

predecessors

n9 0

n156 (And):

successors

n79 0

predecessors

n6 0

n157 (Mem):

predecessors

n102 0

n41 (Mem):

successors

n58 0

n121 0

n79 0

n1 0

n115 0

n19 0

n83 0

n40 0

n40 (Mem):

successors

n96 0

predecessors

n41 0

n42 0

n43 (Add):

successors

n149 0

predecessors

n27 0

n150 (Mem):

successors

n132 0

predecessors

n24 0

n51 0

n42 (And):

successors

n40 0

predecessors

n22 0

n151 (Add):

successors

n158 0

predecessors

n27 0

n45 (Add):

successors

n92 0

predecessors

n27 0

n44 (And):

successors

n60 0

predecessors

n5 0

n47 (Mem):

successors

n46 0

n59 0

n2 0

n108 0

n116 0

n76 0

n20 0

n97 0

n143 (Add):

successors

n142 0

predecessors

n27 0

n46 (Mem):

successors

n78 0

predecessors

n47 0

n48 0

n144 (Mem):

predecessors

n105 0

n49 (And):

successors

n74 0

predecessors

n50 0

n141 (Shift):

successors

n122 0

predecessors

n10 0

n48 (And):

successors

n46 0

predecessors

n119 0

n142 (Mem):

successors

n148 0

predecessors

n143 0

n24 0

n147 (Or):

successors

n10 0

predecessors

n126 0

n128 0

n148 (Shift):

successors

n167 0

predecessors

n142 0

n145 (And):

successors

n1 0

predecessors

n10 0

n146 (And):

successors

n58 0

predecessors

n130 0

n149 (Mem):

successors

n176 0

predecessors

n24 0

n43 0

n0 (Or):

successors

n73 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

predecessors

n145 0

n41 0

n2 (Mem):

successors

n0 0

predecessors

n47 0

n170 0

n3 (And):

successors

n104 0

predecessors

n4 0

n4 (Shift):

successors

n3 0

predecessors

n6 0

n5 (Shift):

successors

n44 0

predecessors

n6 0

n6 (Or):

successors

n137 0

n156 0

n4 0

n5 0

predecessors

n7 0

n8 0

n50 (Shift):

successors

n49 0

predecessors

n15 0

n7 (Or):

successors

n6 0

predecessors

n35 0

n34 0

n8 (Mem):

successors

n6 0

n66 0

n52 (And):

successors

n82 0

predecessors

n53 0

n9 (Shift):

successors

n159 0

predecessors

n10 0

n51 (Add):

successors

n150 0

predecessors

n27 0

n54 (Add):

successors

n88 0

predecessors

n27 0

n53 (Shift):

successors

n52 0

predecessors

n90 0

n56 (Shift):

successors

n55 0

predecessors

n15 0

n55 (And):

successors

n118 0

predecessors

n56 0

n58 (Mem):

successors

n57 0

predecessors

n146 0

n41 0

n176 (And):

successors

n115 0

predecessors

n149 0

n57 (Or):

successors

n128 0

predecessors

n58 0

n59 0

n177 (Add):

n174 (Mem):

successors

n169 0

predecessors

n159 0

n32 0

n59 (Mem):

successors

n57 0

predecessors

n47 0

n167 0

n175 (And):

successors

n19 0

predecessors

n140 0

n178 (Cmp):

n61 (And):

successors

n120 0

predecessors

n62 0

n60 (Mem):

successors

n89 0

predecessors

n32 0

n44 0

n63 (Shift):

successors

n33 0

predecessors

n64 0

n62 (Shift):

successors

n61 0

predecessors

n10 0

n65 (Mem):

predecessors

n66 0

n172 (Add):

successors

n171 0

predecessors

n27 0

n64 (Mem):

successors

n63 0

predecessors

n24 0

n135 0

n173 (And):

successors

n116 0

predecessors

n133 0

n67 (Mem):

successors

n30 0

predecessors

n69 0

n68 0

n170 (And):

successors

n2 0

predecessors

n28 0

n66 (Add):

successors

n65 0

n161 0

predecessors

n8 0

n171 (Mem):

predecessors

n24 0

n172 0

n109 0

n69 (And):

successors

n67 0

predecessors

n152 0

n165 (Or):

successors

n169 0

predecessors

n118 0

n96 0

n68 (Mem):

successors

n120 0

n164 0

n104 0

n118 0

n82 0

n71 0

n67 0

n99 0

n166 (Mem):

successors

n86 0

predecessors

n154 0

n24 0

n163 (Or):

successors

n89 0

predecessors

n164 0

n107 0

n164 (Mem):

successors

n163 0

predecessors

n68 0

n111 0

n169 (Or):

successors

n168 0

predecessors

n165 0

n174 0

n167 (And):

successors

n59 0

predecessors

n148 0

n168 (Mem):

predecessors

n24 0

n169 0

n129 0

n70 (Or):

successors

n12 0

predecessors

n121 0

n76 0

n72 (Add):

successors

n134 0

predecessors

n27 0

n71 (Mem):

successors

n12 0

predecessors

n68 0

n131 0

n74 (Mem):

successors

n38 0

predecessors

n49 0

n32 0

n73 (Or):

successors

n38 0

predecessors

n0 0

n104 0

n76 (Mem):

successors

n70 0

predecessors

n47 0

n16 0

n75 (Mem):

successors

n17 0

predecessors

n24 0

n139 0

n78 (Or):

successors

n110 0

predecessors

n79 0

n46 0

n77 (And):

successors

n121 0

predecessors

n23 0

n110 (Or):

successors

n109 0

predecessors

n120 0

n78 0

n79 (Mem):

successors

n78 0

predecessors

n156 0

n41 0

n111 (And):

successors

n164 0

predecessors

n112 0

n114 (Shift):

successors

n100 0

predecessors

n92 0

n115 (Mem):

successors

n98 0

predecessors

n176 0

n41 0

n112 (Shift):

successors

n111 0

predecessors

n22 0

n113 (And):

successors

n20 0

predecessors

n123 0

n118 (Mem):

successors

n165 0

predecessors

n68 0

n55 0

n119 (Shift):

successors

n48 0

predecessors

n15 0

n116 (Mem):

successors

n98 0

predecessors

n47 0

n173 0

n117 (Add):

successors

n140 0

predecessors

n27 0

n81 (Mem):

successors

n80 0

predecessors

n24 0

n87 0

n80 (Shift):

successors

n127 0

predecessors

n81 0

n83 (Mem):

successors

n107 0

predecessors

n14 0

n41 0

n82 (Mem):

successors

n128 0

predecessors

n68 0

n52 0

n85 (And):

successors

n13 0

predecessors

n86 0

n84 (And):

successors

n103 0

predecessors

n21 0

n87 (Add):

successors

n81 0

predecessors

n27 0

n86 (Shift):

successors

n85 0

predecessors

n166 0

n89 (Or):

successors

n88 0

predecessors

n163 0

n60 0

n88 (Mem):

predecessors

n24 0

n54 0

n89 0

n100 (And):

successors

n99 0

predecessors

n114 0

n103 (Mem):

successors

n109 0

predecessors

n84 0

n32 0

n104 (Mem):

successors

n73 0

predecessors

n68 0

n3 0

n101 (Cmp):

predecessors

n102 0

n102 (Add):

successors

n101 0

n157 0

predecessors

n162 0

n107 (Or):

successors

n163 0

predecessors

n83 0

n108 0

n108 (Mem):

successors

n107 0

predecessors

n47 0

n122 0

n105 (Add):

successors

n144 0

predecessors

n106 0

n106 (Mem):

successors

n105 0

n10 0

n109 (Or):

successors

n171 0

predecessors

n110 0

n103 0

Nr of Nodes : 179

ASAP

Found schedule of length 21

n47 : [0:1]

n24 : [0:1]

n177 : [0:0]

n68 : [0:1]

n27 : [0:0]

n178 : [0:0]

n124 : [0:1]

n41 : [0:1]

n8 : [0:1]

n106 : [0:1]

n32 : [0:1]

n162 : [0:1]

n91 : [1:1]

n72 : [1:1]

n51 : [1:1]

n54 : [1:1]

n154 : [1:1]

n37 : [1:1]

n135 : [1:1]

n138 : [1:1]

n117 : [1:1]

n139 : [1:1]

n43 : [1:1]

n87 : [1:1]

n172 : [1:1]

n151 : [1:1]

n45 : [1:1]

n25 : [1:1]

n143 : [1:1]

n26 : [1:1]

n125 : [1:1]

n129 : [1:1]

n90 : [2:3]

n81 : [2:3]

n92 : [2:3]

n94 : [2:2]

n150 : [2:3]

n64 : [2:3]

n140 : [2:3]

n75 : [2:3]

n23 : [2:3]

n66 : [2:2]

n166 : [2:3]

n155 : [2:3]

n130 : [2:3]

n142 : [2:3]

n153 : [2:3]

n158 : [2:3]

n134 : [2:3]

n102 : [2:2]

n105 : [2:2]

n149 : [2:3]

n93 : [3:4]

n65 : [3:4]

n161 : [3:3]

n160 : [3:3]

n144 : [3:4]

n101 : [3:3]

n157 : [3:4]

n80 : [4:4]

n63 : [4:4]

n95 : [4:4]

n53 : [4:4]

n86 : [4:4]

n77 : [4:4]

n132 : [4:4]

n176 : [4:4]

n133 : [4:4]

n152 : [4:4]

n175 : [4:4]

n114 : [4:4]

n17 : [4:4]

n148 : [4:4]

n123 : [4:4]

n146 : [4:4]

n52 : [5:5]

n85 : [5:5]

n173 : [5:5]

n33 : [5:5]

n121 : [5:6]

n69 : [5:5]

n58 : [5:6]

n100 : [5:5]

n16 : [5:5]

n131 : [5:5]

n39 : [5:5]

n115 : [5:6]

n167 : [5:5]

n19 : [5:6]

n113 : [5:5]

n127 : [5:5]

n82 : [6:7]

n71 : [6:7]

n76 : [6:7]

n31 : [6:7]

n20 : [6:7]

n67 : [6:7]

n99 : [6:7]

n13 : [6:7]

n35 : [6:7]

n59 : [6:7]

n126 : [6:7]

n116 : [6:7]

n57 : [8:8]

n18 : [8:8]

n70 : [8:8]

n98 : [8:8]

n30 : [9:9]

n128 : [9:9]

n34 : [9:9]

n12 : [9:9]

n29 : [10:10]

n147 : [10:10]

n7 : [10:10]

n11 : [10:10]

n15 : [11:11]

n6 : [11:11]

n10 : [11:11]

n22 : [11:11]

n4 : [12:12]

n5 : [12:12]

n50 : [12:12]

n9 : [12:12]

n62 : [12:12]

n21 : [12:12]

n42 : [12:12]

n56 : [12:12]

n14 : [12:12]

n141 : [12:12]

n137 : [12:12]

n28 : [12:12]

n156 : [12:12]

n145 : [12:12]

n112 : [12:12]

n119 : [12:12]

n1 : [13:14]

n3 : [13:13]

n61 : [13:13]

n83 : [13:14]

n84 : [13:13]

n40 : [13:14]

n170 : [13:13]

n44 : [13:13]

n55 : [13:13]

n122 : [13:13]

n79 : [13:14]

n111 : [13:13]

n49 : [13:13]

n48 : [13:13]

n136 : [13:13]

n159 : [13:13]

n2 : [14:15]

n60 : [14:15]

n74 : [14:15]

n97 : [14:15]

n46 : [14:15]

n174 : [14:15]

n120 : [14:15]

n164 : [14:15]

n103 : [14:15]

n104 : [14:15]

n118 : [14:15]

n108 : [14:15]

n0 : [16:16]

n107 : [16:16]

n96 : [16:16]

n78 : [16:16]

n165 : [17:17]

n110 : [17:17]

n163 : [17:17]

n73 : [17:17]

n38 : [18:18]

n169 : [18:18]

n109 : [18:18]

n89 : [18:18]

n36 : [19:20]

n168 : [19:20]

n171 : [19:20]

n88 : [19:20]

Registered resources

OR 18 8.0

OR 17 8.0

OR 16 8.0

OR 11 8.0

OR 10 8.0

OR 9 8.0

OR 8 8.0

AND 13 24.0

AND 5 24.0

AND 12 8.0

AND 4 8.0

SH 12 24.0

SH 4 24.0

SH 0 2.0

CMP 3 6.300000000000001

CMP 0 2.1

ADD 1 20.0

ADD 2 4.0

ADD 0 1.0

MEM 3 180.0

MEM 14 144.0

MEM 6 144.0

MEM 2 144.0

MEM 15 108.0

MEM 7 108.0

MEM 1 81.0

MEM 0 81.0

MEM 20 36.0

MEM 19 36.0

MEM 13 36.0

MEM 5 36.0

MEM 4 36.0

cost = 262.3

ALAP

Found schedule of length 21

n24 : [0:1]

n27 : [0:0]

n143 : [1:1]

n72 : [1:1]

n139 : [1:1]

n151 : [1:1]

n25 : [2:2]

n26 : [2:2]

n142 : [2:3]

n125 : [2:2]

n158 : [2:3]

n134 : [2:3]

n91 : [2:2]

n51 : [2:2]

n117 : [2:2]

n43 : [2:2]

n75 : [2:3]

n45 : [2:2]

n90 : [3:4]

n92 : [3:4]

n87 : [3:3]

n150 : [3:4]

n140 : [3:4]

n23 : [3:4]

n154 : [3:3]

n130 : [3:4]

n153 : [3:4]

n135 : [3:3]

n149 : [3:4]

n138 : [3:3]

n81 : [4:5]

n41 : [4:5]

n64 : [4:5]

n47 : [4:5]

n155 : [4:5]

n166 : [4:5]

n133 : [4:4]

n17 : [4:4]

n148 : [4:4]

n123 : [4:4]

n53 : [5:5]

n173 : [5:5]

n77 : [5:5]

n132 : [5:5]

n176 : [5:5]

n68 : [5:6]

n16 : [5:5]

n152 : [5:5]

n175 : [5:5]

n114 : [5:5]

n167 : [5:5]

n113 : [5:5]

n146 : [5:5]

n80 : [6:6]

n52 : [6:6]

n63 : [6:6]

n95 : [6:6]

n32 : [6:7]

n76 : [6:7]

n86 : [6:6]

n20 : [6:7]

n121 : [6:7]

n69 : [6:6]

n58 : [6:7]

n100 : [6:6]

n131 : [6:6]

n59 : [6:7]

n115 : [6:7]

n19 : [6:7]

n116 : [6:7]

n82 : [7:8]

n71 : [7:8]

n85 : [7:7]

n67 : [7:8]

n33 : [7:7]

n99 : [7:8]

n39 : [7:7]

n127 : [7:7]

n35 : [8:9]

n13 : [8:9]

n57 : [8:8]

n18 : [8:8]

n126 : [8:9]

n70 : [8:8]

n98 : [8:8]

n31 : [8:9]

n124 : [9:10]

n8 : [9:10]

n30 : [9:9]

n106 : [9:10]

n128 : [9:9]

n162 : [9:10]

n34 : [9:9]

n12 : [9:9]

n29 : [10:10]

n147 : [10:10]

n7 : [10:10]

n11 : [10:10]

n15 : [11:11]

n6 : [11:11]

n10 : [11:11]

n22 : [11:11]

n141 : [12:12]

n137 : [12:12]

n28 : [12:12]

n119 : [12:12]

n14 : [13:13]

n122 : [13:13]

n48 : [13:13]

n136 : [13:13]

n145 : [13:13]

n4 : [13:13]

n112 : [13:13]

n156 : [13:13]

n62 : [13:13]

n42 : [13:13]

n170 : [13:13]

n56 : [13:13]

n1 : [14:15]

n2 : [14:15]

n3 : [14:14]

n5 : [14:14]

n50 : [14:14]

n61 : [14:14]

n83 : [14:15]

n9 : [14:14]

n40 : [14:15]

n21 : [14:14]

n97 : [14:15]

n55 : [14:14]

n111 : [14:14]

n79 : [14:15]

n46 : [14:15]

n108 : [14:15]

n84 : [15:15]

n44 : [15:15]

n49 : [15:15]

n120 : [15:16]

n164 : [15:16]

n159 : [15:15]

n104 : [15:16]

n118 : [15:16]

n174 : [16:17]

n0 : [16:16]

n103 : [16:17]

n107 : [16:16]

n60 : [16:17]

n74 : [16:17]

n96 : [16:16]

n78 : [16:16]

n165 : [17:17]

n110 : [17:17]

n163 : [17:17]

n73 : [17:17]

n38 : [18:18]

n37 : [18:18]

n169 : [18:18]

n102 : [18:18]

n94 : [18:18]

n129 : [18:18]

n105 : [18:18]

n172 : [18:18]

n54 : [18:18]

n109 : [18:18]

n89 : [18:18]

n66 : [18:18]

n36 : [19:20]

n144 : [19:20]

n157 : [19:20]

n168 : [19:20]

n93 : [19:20]

n65 : [19:20]

n171 : [19:20]

n88 : [19:20]

n161 : [20:20]

n160 : [20:20]

n177 : [20:20]

n178 : [20:20]

n101 : [20:20]

Registered resources

OR 18 8.0

OR 17 8.0

OR 16 8.0

OR 11 8.0

OR 10 8.0

OR 9 8.0

OR 8 8.0

AND 13 16.0

AND 5 16.0

AND 15 8.0

AND 14 8.0

AND 7 8.0

AND 6 8.0

CMP 20 8.4

SH 14 8.0

SH 13 8.0

SH 12 8.0

SH 6 8.0

SH 5 8.0

SH 4 8.0

SH 0 2.0

ADD 18 8.0

ADD 2 8.0

ADD 3 4.0

ADD 1 4.0

ADD 20 1.0

MEM 4 126.0

MEM 7 117.0

MEM 15 108.0

MEM 3 108.0

MEM 6 90.0

MEM 20 72.0

MEM 19 72.0

MEM 16 72.0

MEM 14 72.0

MEM 9 72.0

MEM 8 72.0

MEM 5 63.0

MEM 17 36.0

MEM 10 36.0

MEM 2 36.0

MEM 1 9.0

MEM 0 9.0

cost = 174.4

# ECOH256Digest-compress-49-121

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62192:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ECOH256Digest-compress-49-121.dot

Scheduling scheduler-framework-master/graphs/ECOH256Digest-compress-49-121.dot

n0 (Mem):

successors

n4 0

predecessors

n1 0

n1 (Shift):

successors

n0 0

n16 0

n10 0

n12 0

n2 (And):

successors

n20 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

predecessors

n10 0

n4 (And):

successors

n14 0

predecessors

n0 0

n5 (Or):

successors

n13 0

predecessors

n6 0

n7 0

n6 (Shift):

successors

n5 0

predecessors

n8 0

n7 (Shift):

successors

n5 0

predecessors

n9 0

n8 (And):

successors

n6 0

predecessors

n11 0

n9 (And):

successors

n7 0

predecessors

n15 0

n10 (Add):

successors

n3 0

predecessors

n1 0

n21 (Add):

n20 (Shift):

successors

n14 0

predecessors

n2 0

n12 (Add):

successors

n15 0

predecessors

n1 0

n11 (Mem):

successors

n8 0

predecessors

n16 0

n22 (Cmp):

n14 (Or):

successors

n13 0

predecessors

n4 0

n20 0

n13 (Or):

successors

n17 0

predecessors

n14 0

n5 0

n16 (Add):

successors

n11 0

predecessors

n1 0

n15 (Mem):

successors

n9 0

predecessors

n12 0

n18 (Mem):

successors

n17 0

n17 (Mem):

predecessors

n13 0

n18 0

n19 0

n19 (Add):

successors

n17 0

Nr of Nodes : 23

ASAP

Found schedule of length 10

n1 : [0:0]

n18 : [0:1]

n19 : [0:0]

n21 : [0:0]

n22 : [0:0]

n0 : [1:2]

n16 : [1:1]

n10 : [1:1]

n12 : [1:1]

n15 : [2:3]

n3 : [2:3]

n11 : [2:3]

n4 : [3:3]

n2 : [4:4]

n8 : [4:4]

n9 : [4:4]

n6 : [5:5]

n7 : [5:5]

n20 : [5:5]

n14 : [6:6]

n5 : [6:6]

n13 : [7:7]

n17 : [8:9]

Registered resources

OR 6 4.0

OR 7 2.0

AND 4 6.0

AND 3 2.0

ADD 1 3.0

ADD 0 2.0

CMP 0 2.1

MEM 2 36.0

MEM 3 27.0

MEM 1 18.0

MEM 9 9.0

MEM 8 9.0

MEM 0 9.0

SH 5 6.0

SH 0 2.0

cost = 57.1

ALAP

Found schedule of length 10

n1 : [0:0]

n16 : [1:1]

n10 : [1:1]

n12 : [1:1]

n15 : [2:3]

n3 : [2:3]

n11 : [2:3]

n0 : [3:4]

n2 : [4:4]

n8 : [4:4]

n9 : [4:4]

n4 : [5:5]

n6 : [5:5]

n7 : [5:5]

n20 : [5:5]

n14 : [6:6]

n18 : [6:7]

n5 : [6:6]

n13 : [7:7]

n19 : [7:7]

n17 : [8:9]

n21 : [9:9]

n22 : [9:9]

Registered resources

OR 6 4.0

OR 7 2.0

AND 4 6.0

AND 5 2.0

ADD 1 3.0

ADD 9 1.0

ADD 7 1.0

CMP 9 2.1

MEM 3 36.0

MEM 2 27.0

MEM 9 9.0

MEM 8 9.0

MEM 7 9.0

MEM 6 9.0

MEM 4 9.0

SH 5 6.0

SH 0 2.0

cost = 57.1

# ECOH256Digest-compress-839-1065

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=63507:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ECOH256Digest-compress-839-1065.dot

Scheduling scheduler-framework-master/graphs/ECOH256Digest-compress-839-1065.dot

n0 (Mem):

successors

n26 0

predecessors

n1 0

n1 (Add):

successors

n57 0

n0 0

n18 0

n66 0

predecessors

n22 0

n2 (Shift):

successors

n73 0

predecessors

n3 0

n3 (And):

successors

n2 0

predecessors

n23 0

n4 (Mem):

successors

n49 0

predecessors

n5 0

n5 (Add):

successors

n4 0

predecessors

n12 0

n6 (And):

successors

n39 0

predecessors

n7 0

n50 (Shift):

successors

n53 0

predecessors

n51 0

n7 (Mem):

successors

n6 0

predecessors

n21 0

n8 (Or):

successors

n32 0

predecessors

n9 0

n10 0

n52 (And):

successors

n38 0

predecessors

n33 0

n9 (Shift):

successors

n8 0

predecessors

n49 0

n51 (And):

successors

n50 0

predecessors

n47 0

n10 (And):

successors

n8 0

predecessors

n48 0

n54 (Shift):

successors

n53 0

predecessors

n64 0

n53 (Or):

successors

n31 0

predecessors

n50 0

n54 0

n12 (Add):

successors

n48 0

n5 0

n21 0

n11 0

predecessors

n62 0

n56 (Add):

successors

n55 0

n11 (Add):

successors

n33 0

predecessors

n12 0

n55 (Mem):

successors

n46 0

predecessors

n40 0

n56 0

n14 (Mem):

successors

n13 0

predecessors

n16 0

n58 (Mem):

successors

n64 0

predecessors

n59 0

n13 (And):

successors

n60 0

predecessors

n14 0

n57 (Add):

successors

n23 0

predecessors

n1 0

n16 (Mul):

successors

n14 0

n15 0

n59 0

n63 0

n15 (Add):

successors

n47 0

predecessors

n16 0

n59 (Add):

successors

n58 0

predecessors

n16 0

n18 (Add):

successors

n17 0

predecessors

n1 0

n17 (Mem):

successors

n41 0

predecessors

n18 0

n19 (Shift):

successors

n73 0

predecessors

n20 0

n61 (Shift):

successors

n60 0

predecessors

n44 0

n60 (Or):

successors

n31 0

predecessors

n13 0

n61 0

n63 (Add):

successors

n45 0

predecessors

n16 0

n62 (Mul):

successors

n12 0

n21 (Add):

successors

n7 0

predecessors

n12 0

n65 (Mem):

successors

n20 0

predecessors

n66 0

n20 (And):

successors

n19 0

predecessors

n65 0

n64 (And):

successors

n54 0

predecessors

n58 0

n23 (Mem):

successors

n3 0

predecessors

n57 0

n67 (Or):

successors

n28 0

predecessors

n24 0

n73 0

n22 (Mul):

successors

n1 0

n66 (Add):

successors

n65 0

predecessors

n1 0

n25 (Shift):

successors

n24 0

predecessors

n41 0

n69 (Add):

successors

n68 0

n24 (Or):

successors

n67 0

predecessors

n25 0

n26 0

n68 (Mem):

successors

n72 0

predecessors

n69 0

n40 0

n27 (Or):

successors

n72 0

predecessors

n29 0

n28 0

n26 (And):

successors

n24 0

predecessors

n0 0

n29 (Mem):

successors

n27 0

predecessors

n40 0

n28 (Or):

successors

n27 0

predecessors

n30 0

n67 0

n70 (Mem):

predecessors

n71 0

n34 0

n72 (Or):

successors

n46 0

predecessors

n68 0

n27 0

n71 (Mem):

successors

n35 0

n70 0

n30 (Or):

successors

n28 0

predecessors

n32 0

n31 0

n74 (Add):

n73 (Or):

successors

n67 0

predecessors

n2 0

n19 0

n32 (Or):

successors

n30 0

predecessors

n37 0

n8 0

n31 (Or):

successors

n30 0

predecessors

n60 0

n53 0

n75 (Cmp):

n34 (Or):

successors

n70 0

predecessors

n36 0

n35 0

n33 (Mem):

successors

n52 0

predecessors

n11 0

n36 (Or):

successors

n34 0

predecessors

n46 0

n42 0

n35 (Mem):

successors

n34 0

predecessors

n71 0

n38 (Shift):

successors

n37 0

predecessors

n52 0

n37 (Or):

successors

n32 0

predecessors

n38 0

n39 0

n39 (Shift):

successors

n37 0

predecessors

n6 0

n41 (And):

successors

n25 0

predecessors

n17 0

n40 (Mem):

successors

n68 0

n29 0

n42 0

n55 0

n43 (Add):

successors

n42 0

n42 (Mem):

successors

n36 0

predecessors

n40 0

n43 0

n45 (Mem):

successors

n44 0

predecessors

n63 0

n44 (And):

successors

n61 0

predecessors

n45 0

n47 (Mem):

successors

n51 0

predecessors

n15 0

n46 (Or):

successors

n36 0

predecessors

n72 0

n55 0

n49 (And):

successors

n9 0

predecessors

n4 0

n48 (Mem):

successors

n10 0

predecessors

n12 0

Nr of Nodes : 76

ASAP

Found schedule of length 21

n69 : [0:0]

n16 : [0:3]

n71 : [0:1]

n74 : [0:0]

n62 : [0:3]

n40 : [0:1]

n43 : [0:0]

n75 : [0:0]

n56 : [0:0]

n22 : [0:3]

n35 : [2:3]

n68 : [2:3]

n29 : [2:3]

n42 : [2:3]

n55 : [2:3]

n14 : [4:5]

n15 : [4:4]

n59 : [4:4]

n1 : [4:4]

n63 : [4:4]

n12 : [4:4]

n47 : [5:6]

n58 : [5:6]

n57 : [5:5]

n0 : [5:6]

n48 : [5:6]

n18 : [5:5]

n5 : [5:5]

n21 : [5:5]

n45 : [5:6]

n66 : [5:5]

n11 : [5:5]

n13 : [6:6]

n17 : [6:7]

n4 : [6:7]

n7 : [6:7]

n65 : [6:7]

n23 : [6:7]

n33 : [6:7]

n26 : [7:7]

n51 : [7:7]

n10 : [7:7]

n64 : [7:7]

n44 : [7:7]

n49 : [8:8]

n3 : [8:8]

n6 : [8:8]

n50 : [8:8]

n61 : [8:8]

n41 : [8:8]

n52 : [8:8]

n54 : [8:8]

n20 : [8:8]

n25 : [9:9]

n38 : [9:9]

n2 : [9:9]

n39 : [9:9]

n19 : [9:9]

n60 : [9:9]

n9 : [9:9]

n53 : [9:9]

n24 : [10:10]

n37 : [10:10]

n8 : [10:10]

n73 : [10:10]

n31 : [10:10]

n32 : [11:11]

n67 : [11:11]

n30 : [12:12]

n28 : [13:13]

n27 : [14:14]

n72 : [15:15]

n46 : [16:16]

n36 : [17:17]

n34 : [18:18]

n70 : [19:20]

Registered resources

SH 9 12.0

SH 8 6.0

AND 8 12.0

AND 7 10.0

AND 6 2.0

MEM 6 99.0

MEM 7 54.0

MEM 5 54.0

MEM 3 45.0

MEM 2 45.0

MEM 1 18.0

MEM 0 18.0

MEM 20 9.0

MEM 19 9.0

MEM 4 9.0

CMP 0 2.1

MUL 3 6.8999999999999995

MUL 2 6.8999999999999995

MUL 1 6.8999999999999995

MUL 0 6.8999999999999995

OR 10 10.0

OR 11 4.0

OR 9 4.0

OR 18 2.0

OR 17 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

ADD 5 6.0

ADD 4 5.0

ADD 0 4.0

cost = 148.0

ALAP

Found schedule of length 21

n62 : [0:3]

n16 : [1:4]

n22 : [1:4]

n12 : [4:4]

n15 : [5:5]

n59 : [5:5]

n1 : [5:5]

n5 : [5:5]

n63 : [5:5]

n21 : [5:5]

n11 : [5:5]

n47 : [6:7]

n58 : [6:7]

n57 : [6:6]

n18 : [6:6]

n4 : [6:7]

n7 : [6:7]

n45 : [6:7]

n33 : [6:7]

n66 : [6:6]

n14 : [7:8]

n48 : [7:8]

n17 : [7:8]

n65 : [7:8]

n23 : [7:8]

n0 : [8:9]

n49 : [8:8]

n6 : [8:8]

n52 : [8:8]

n51 : [8:8]

n64 : [8:8]

n44 : [8:8]

n13 : [9:9]

n38 : [9:9]

n39 : [9:9]

n3 : [9:9]

n61 : [9:9]

n50 : [9:9]

n41 : [9:9]

n9 : [9:9]

n10 : [9:9]

n54 : [9:9]

n20 : [9:9]

n25 : [10:10]

n26 : [10:10]

n37 : [10:10]

n2 : [10:10]

n19 : [10:10]

n60 : [10:10]

n8 : [10:10]

n40 : [10:11]

n53 : [10:10]

n24 : [11:11]

n73 : [11:11]

n32 : [11:11]

n31 : [11:11]

n69 : [12:12]

n29 : [12:13]

n30 : [12:12]

n67 : [12:12]

n68 : [13:14]

n28 : [13:13]

n56 : [13:13]

n27 : [14:14]

n71 : [14:15]

n43 : [14:14]

n55 : [14:15]

n72 : [15:15]

n42 : [15:16]

n35 : [16:17]

n46 : [16:16]

n36 : [17:17]

n34 : [18:18]

n70 : [19:20]

n74 : [20:20]

n75 : [20:20]

Registered resources

SH 9 12.0

SH 10 6.0

AND 8 12.0

AND 9 10.0

AND 10 2.0

MEM 7 99.0

MEM 8 54.0

MEM 6 54.0

MEM 15 27.0

MEM 14 27.0

MEM 16 18.0

MEM 13 18.0

MEM 20 9.0

MEM 19 9.0

MEM 17 9.0

MEM 12 9.0

MEM 11 9.0

MEM 10 9.0

MEM 9 9.0

CMP 20 2.1

OR 11 8.0

OR 10 8.0

OR 12 4.0

OR 18 2.0

OR 17 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

MUL 3 6.8999999999999995

MUL 2 6.8999999999999995

MUL 1 6.8999999999999995

MUL 4 4.6

MUL 0 2.3

ADD 5 7.0

ADD 6 3.0

ADD 20 1.0

ADD 14 1.0

ADD 13 1.0

ADD 12 1.0

ADD 4 1.0

cost = 147.0

# ECOH256Digest-engineReset-37-53

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=60229:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ECOH256Digest-engineReset-37-53.dot

Scheduling scheduler-framework-master/graphs/ECOH256Digest-engineReset-37-53.dot

n0 (Mem):

predecessors

n1 0

n1 (Mem):

successors

n0 0

n2 (Add):

n3 (Cmp):

Nr of Nodes : 4

ASAP

Found schedule of length 4

n1 : [0:1]

n2 : [0:0]

n3 : [0:0]

n0 : [2:3]

Registered resources

CMP 0 2.1

ADD 0 1.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

cost = 12.1

ALAP

Found schedule of length 4

n1 : [0:1]

n0 : [2:3]

n2 : [3:3]

n3 : [3:3]

Registered resources

CMP 3 2.1

ADD 3 1.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

cost = 12.1

Process finished with exit code 0

# ECOH256Digest-mixColumn-3-238

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=60259:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/ECOH256Digest-mixColumn-3-238.dot

Scheduling scheduler-framework-master/graphs/ECOH256Digest-mixColumn-3-238.dot

n0 (And):

successors

n57 0

predecessors

n1 0

n2 0

n1 (Or):

successors

n0 0

n3 0

n12 0

predecessors

n16 0

n23 0

n2 (Or):

successors

n0 0

n3 (Or):

successors

n35 0

predecessors

n1 0

n4 0

n4 (Or):

successors

n3 0

n39 0

predecessors

n58 0

n41 0

n5 (Or):

successors

n59 0

predecessors

n6 0

n7 0

n6 (Or):

successors

n5 0

predecessors

n46 0

n21 0

n50 (And):

successors

n52 0

predecessors

n51 0

n21 0

n7 (Mem):

successors

n35 0

n15 0

n5 0

predecessors

n14 0

n9 0

n8 (Mem):

predecessors

n9 0

n10 0

n11 0

n52 (Shift):

successors

n58 0

predecessors

n50 0

n9 (Mem):

successors

n16 0

n59 0

n7 0

n8 0

n23 0

n33 0

n22 0

n44 0

n51 (Or):

successors

n50 0

n10 (Add):

successors

n8 0

predecessors

n54 0

n54 (Shift):

successors

n10 0

n53 (Shift):

successors

n34 0

n12 (And):

successors

n26 0

predecessors

n13 0

n1 0

n56 (Mul):

successors

n40 0

predecessors

n26 0

n11 (Or):

successors

n8 0

predecessors

n16 0

n31 0

n55 (Shift):

successors

n45 0

n14 (Add):

successors

n7 0

predecessors

n61 0

n58 (Mul):

successors

n4 0

predecessors

n52 0

n13 (Or):

successors

n12 0

n57 (Shift):

successors

n40 0

predecessors

n0 0

n16 (Mem):

successors

n15 0

n1 0

n11 0

predecessors

n19 0

n9 0

n15 (Or):

successors

n24 0

n27 0

n17 0

predecessors

n16 0

n7 0

n59 (Mem):

predecessors

n48 0

n5 0

n9 0

n18 (Or):

successors

n17 0

n17 (And):

successors

n60 0

predecessors

n15 0

n18 0

n19 (Add):

successors

n16 0

predecessors

n20 0

n61 (Shift):

successors

n14 0

n60 (Shift):

successors

n47 0

predecessors

n17 0

n63 (Cmp):

n62 (Add):

n21 (Or):

successors

n36 0

n50 0

n6 0

n31 0

predecessors

n23 0

n22 0

n20 (Shift):

successors

n19 0

n23 (Mem):

successors

n1 0

n21 0

predecessors

n9 0

n42 0

n22 (Mem):

successors

n28 0

n21 0

predecessors

n29 0

n9 0

n25 (Or):

successors

n24 0

n24 (And):

successors

n38 0

predecessors

n25 0

n15 0

n27 (Or):

successors

n44 0

predecessors

n15 0

n28 0

n26 (Shift):

successors

n56 0

predecessors

n12 0

n29 (Add):

successors

n22 0

predecessors

n30 0

n28 (Or):

successors

n27 0

predecessors

n40 0

n22 0

n30 (Shift):

successors

n29 0

n32 (Or):

successors

n31 0

predecessors

n46 0

n39 0

n31 (Or):

successors

n11 0

predecessors

n32 0

n21 0

n34 (Add):

successors

n33 0

predecessors

n53 0

n33 (Mem):

predecessors

n35 0

n9 0

n34 0

n36 (And):

successors

n41 0

predecessors

n37 0

n21 0

n35 (Or):

successors

n33 0

predecessors

n3 0

n7 0

n38 (Shift):

successors

n46 0

predecessors

n24 0

n37 (Or):

successors

n36 0

n39 (Or):

successors

n32 0

predecessors

n4 0

n40 0

n41 (Shift):

successors

n4 0

predecessors

n36 0

n40 (Or):

successors

n39 0

n28 0

predecessors

n57 0

n56 0

n43 (Shift):

successors

n42 0

n42 (Add):

successors

n23 0

predecessors

n43 0

n45 (Add):

successors

n44 0

predecessors

n55 0

n44 (Mem):

predecessors

n27 0

n9 0

n45 0

n47 (Mul):

successors

n46 0

predecessors

n60 0

n46 (Or):

successors

n6 0

n32 0

predecessors

n47 0

n38 0

n49 (Shift):

successors

n48 0

n48 (Add):

successors

n59 0

predecessors

n49 0

Nr of Nodes : 64

ASAP

Found schedule of length 18

n2 : [0:0]

n61 : [0:0]

n63 : [0:0]

n30 : [0:0]

n9 : [0:1]

n51 : [0:0]

n62 : [0:0]

n54 : [0:0]

n43 : [0:0]

n53 : [0:0]

n20 : [0:0]

n55 : [0:0]

n25 : [0:0]

n13 : [0:0]

n49 : [0:0]

n37 : [0:0]

n18 : [0:0]

n14 : [1:1]

n48 : [1:1]

n29 : [1:1]

n19 : [1:1]

n10 : [1:1]

n42 : [1:1]

n34 : [1:1]

n45 : [1:1]

n16 : [2:3]

n7 : [2:3]

n23 : [2:3]

n22 : [2:3]

n15 : [4:4]

n1 : [4:4]

n21 : [4:4]

n36 : [5:5]

n24 : [5:5]

n0 : [5:5]

n17 : [5:5]

n50 : [5:5]

n12 : [5:5]

n57 : [6:6]

n38 : [6:6]

n26 : [6:6]

n60 : [6:6]

n41 : [6:6]

n52 : [6:6]

n47 : [7:10]

n58 : [7:10]

n56 : [7:10]

n46 : [11:11]

n4 : [11:11]

n40 : [11:11]

n3 : [12:12]

n39 : [12:12]

n28 : [12:12]

n6 : [12:12]

n35 : [13:13]

n27 : [13:13]

n5 : [13:13]

n32 : [13:13]

n59 : [14:15]

n31 : [14:14]

n33 : [14:15]

n44 : [14:15]

n11 : [15:15]

n8 : [16:17]

Registered resources

AND 5 12.0

ADD 1 8.0

ADD 0 1.0

CMP 0 2.1

MEM 3 36.0

MEM 2 36.0

MEM 15 27.0

MEM 14 27.0

MEM 17 9.0

MEM 16 9.0

MEM 1 9.0

MEM 0 9.0

SH 0 16.0

SH 6 12.0

MUL 10 6.8999999999999995

MUL 9 6.8999999999999995

MUL 8 6.8999999999999995

MUL 7 6.8999999999999995

OR 0 12.0

OR 13 8.0

OR 12 8.0

OR 11 6.0

OR 4 6.0

OR 15 2.0

OR 14 2.0

cost = 93.0

ALAP

Found schedule of length 18

n30 : [0:0]

n9 : [0:1]

n43 : [0:0]

n20 : [0:0]

n29 : [1:1]

n19 : [1:1]

n61 : [1:1]

n42 : [1:1]

n14 : [2:2]

n16 : [2:3]

n23 : [2:3]

n22 : [2:3]

n7 : [3:4]

n13 : [4:4]

n1 : [4:4]

n51 : [4:4]

n21 : [4:4]

n15 : [5:5]

n18 : [5:5]

n50 : [5:5]

n12 : [5:5]

n26 : [6:6]

n17 : [6:6]

n52 : [6:6]

n58 : [7:10]

n60 : [7:7]

n56 : [7:10]

n47 : [8:11]

n37 : [8:8]

n2 : [8:8]

n25 : [9:9]

n36 : [9:9]

n0 : [9:9]

n24 : [10:10]

n57 : [10:10]

n41 : [10:10]

n38 : [11:11]

n4 : [11:11]

n40 : [11:11]

n46 : [12:12]

n39 : [12:12]

n32 : [13:13]

n49 : [14:14]

n3 : [14:14]

n28 : [14:14]

n6 : [14:14]

n54 : [14:14]

n53 : [14:14]

n31 : [14:14]

n55 : [14:14]

n35 : [15:15]

n27 : [15:15]

n48 : [15:15]

n5 : [15:15]

n10 : [15:15]

n34 : [15:15]

n45 : [15:15]

n11 : [15:15]

n59 : [16:17]

n8 : [16:17]

n33 : [16:17]

n44 : [16:17]

n63 : [17:17]

n62 : [17:17]

Registered resources

AND 9 4.0

AND 5 4.0

AND 10 2.0

AND 6 2.0

ADD 15 4.0

ADD 1 3.0

ADD 17 1.0

ADD 2 1.0

MEM 17 36.0

MEM 16 36.0

MEM 3 36.0

MEM 2 27.0

MEM 4 9.0

MEM 1 9.0

MEM 0 9.0

CMP 17 2.1

SH 14 8.0

SH 0 6.0

SH 10 4.0

SH 6 4.0

SH 11 2.0

SH 7 2.0

SH 1 2.0

MUL 10 6.8999999999999995

MUL 9 6.8999999999999995

MUL 8 6.8999999999999995

MUL 7 4.6

MUL 11 2.3

OR 15 8.0

OR 14 8.0

OR 4 8.0

OR 12 4.0

OR 11 4.0

OR 8 4.0

OR 5 4.0

OR 13 2.0

OR 9 2.0

cost = 69.0

# FFT-#init#-14-53

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=60309:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/FFT-#init#-14-53.dot

Scheduling scheduler-framework-master/graphs/FFT-#init#-14-53.dot

n0 (Cmp):

predecessors

n1 0

n1 (Shift):

successors

n0 0

n7 0

n2 (Add):

successors

n4 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

n4 (Mem):

successors

n5 0

predecessors

n2 0

n5 (Add):

successors

n6 0

predecessors

n4 0

n6 (Mem):

predecessors

n5 0

n7 (Shift):

predecessors

n1 0

n8 (Cmp):

Nr of Nodes : 9

ASAP

Found schedule of length 8

n1 : [0:0]

n3 : [0:1]

n8 : [0:0]

n0 : [1:1]

n7 : [1:1]

n2 : [2:2]

n4 : [3:4]

n5 : [5:5]

n6 : [6:7]

Registered resources

CMP 1 2.1

CMP 0 2.1

ADD 5 1.0

ADD 2 1.0

MEM 7 9.0

MEM 6 9.0

MEM 4 9.0

MEM 3 9.0

MEM 1 9.0

MEM 0 9.0

SH 1 2.0

SH 0 2.0

cost = 14.1

ALAP

Found schedule of length 8

n3 : [0:1]

n2 : [2:2]

n4 : [3:4]

n5 : [5:5]

n1 : [6:6]

n6 : [6:7]

n0 : [7:7]

n7 : [7:7]

n8 : [7:7]

Registered resources

CMP 7 4.2

ADD 5 1.0

ADD 2 1.0

MEM 7 9.0

MEM 6 9.0

MEM 4 9.0

MEM 3 9.0

MEM 1 9.0

MEM 0 9.0

SH 7 2.0

SH 6 2.0

cost = 16.2

# FFT-fft3-387-948

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=60339:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/FFT-fft3-387-948.dot

Scheduling scheduler-framework-master/graphs/FFT-fft3-387-948.dot

n90 (Sub):

successors

n89 0

predecessors

n110 0

n75 0

n92 (Mem):

successors

n91 0

n91 (Add):

successors

n108 0

predecessors

n92 0

n93 0

n94 (Mem):

predecessors

n44 0

n93 (Add):

successors

n69 0

n91 0

predecessors

n0 0

n78 0

n96 (Div):

successors

n95 0

n95 (Cmp):

predecessors

n96 0

n86 0

n10 (Sub):

successors

n8 0

predecessors

n83 0

n54 0

n98 (Mem):

successors

n13 0

n1 0

n97 (Mem):

predecessors

n38 0

n12 (Mul):

successors

n40 0

predecessors

n14 0

n13 0

n11 (Mem):

successors

n52 0

n78 0

predecessors

n7 0

n99 (Mem):

successors

n88 0

n14 (Mem):

successors

n12 0

n34 0

predecessors

n9 0

n13 (Mem):

successors

n15 0

n12 0

n33 0

n55 0

predecessors

n36 0

n98 0

n16 (Mem):

successors

n15 0

n56 0

predecessors

n9 0

n15 (Mul):

successors

n25 0

predecessors

n13 0

n16 0

n18 (Mem):

successors

n17 0

n21 0

n17 (Mem):

successors

n81 0

n60 0

n23 0

n78 0

predecessors

n18 0

n19 0

n19 (And):

successors

n1 0

n17 0

predecessors

n85 0

n21 (Mem):

successors

n47 0

n20 0

n34 0

n56 0

predecessors

n36 0

n18 0

n20 (Mul):

successors

n25 0

predecessors

n21 0

n22 0

n23 (Mul):

successors

n5 0

predecessors

n35 0

n17 0

n22 (Mem):

successors

n20 0

n55 0

predecessors

n9 0

n25 (Add):

successors

n58 0

n88 0

predecessors

n15 0

n20 0

n24 (Mul):

successors

n5 0

predecessors

n1 0

n6 0

n27 (And):

successors

n26 0

predecessors

n29 0

n26 (Cmp):

predecessors

n27 0

n29 (Add):

successors

n27 0

n28 0

n28 (Add):

predecessors

n29 0

n30 (Mem):

predecessors

n9 0

n31 0

n32 (Sub):

successors

n105 0

n62 0

predecessors

n34 0

n33 0

n31 (Sub):

successors

n30 0

predecessors

n80 0

n40 0

n34 (Mul):

successors

n32 0

predecessors

n14 0

n21 0

n33 (Mul):

successors

n32 0

predecessors

n13 0

n43 0

n36 (And):

successors

n13 0

n21 0

predecessors

n37 0

n35 (Mem):

successors

n59 0

n23 0

predecessors

n7 0

n38 (Add):

successors

n97 0

predecessors

n39 0

n40 0

n37 (Shift):

successors

n36 0

predecessors

n65 0

n39 (Mem):

successors

n38 0

n41 (Cmp):

predecessors

n42 0

n40 (Add):

successors

n38 0

n31 0

predecessors

n47 0

n12 0

n43 (Mem):

successors

n47 0

n33 0

predecessors

n9 0

n42 (Div):

successors

n41 0

n45 (Mem):

successors

n44 0

n44 (Add):

successors

n94 0

predecessors

n46 0

n45 0

n47 (Mul):

successors

n40 0

predecessors

n21 0

n43 0

n46 (Sub):

successors

n50 0

n44 0

predecessors

n81 0

n52 0

n49 (Sub):

successors

n48 0

predecessors

n5 0

n53 0

n48 (Mem):

predecessors

n49 0

n7 0

n0 (Mul):

successors

n93 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n24 0

n0 0

n59 0

n52 0

predecessors

n19 0

n98 0

n2 (Mem):

successors

n0 0

n81 0

predecessors

n7 0

n3 (Add):

successors

n79 0

predecessors

n4 0

n5 0

n4 (Mem):

successors

n3 0

n5 (Add):

successors

n49 0

n3 0

predecessors

n24 0

n23 0

n6 (Mem):

successors

n24 0

n60 0

predecessors

n7 0

n50 (Sub):

successors

n109 0

predecessors

n46 0

n51 0

n7 (Add):

successors

n35 0

n68 0

n48 0

n2 0

n6 0

n89 0

n109 0

n11 0

n8 (Mem):

predecessors

n9 0

n10 0

n52 (Mul):

successors

n46 0

predecessors

n1 0

n11 0

n9 (Add):

successors

n14 0

n57 0

n16 0

n107 0

n8 0

n30 0

n43 0

n22 0

n51 (Mem):

successors

n50 0

n54 (Sub):

successors

n70 0

n10 0

predecessors

n56 0

n55 0

n53 (Mem):

successors

n49 0

n56 (Mul):

successors

n54 0

predecessors

n16 0

n21 0

n55 (Mul):

successors

n54 0

predecessors

n13 0

n22 0

n58 (Sub):

successors

n57 0

predecessors

n25 0

n72 0

n57 (Mem):

predecessors

n58 0

n9 0

n59 (Mul):

successors

n75 0

predecessors

n35 0

n1 0

n61 (Mem):

predecessors

n62 0

n60 (Mul):

successors

n75 0

predecessors

n17 0

n6 0

n63 (Sub):

successors

n85 0

predecessors

n64 0

n62 (Add):

successors

n61 0

predecessors

n102 0

n32 0

n65 (Sub):

successors

n37 0

predecessors

n66 0

n64 (Sub):

successors

n63 0

predecessors

n67 0

n67 (Mem):

successors

n64 0

n66 0

n66 (Sub):

successors

n65 0

predecessors

n67 0

n69 (Sub):

successors

n68 0

predecessors

n104 0

n93 0

n68 (Mem):

predecessors

n69 0

n7 0

n70 (Add):

successors

n101 0

predecessors

n71 0

n54 0

n72 (Mem):

successors

n58 0

n71 (Mem):

successors

n70 0

n74 (Mem):

successors

n73 0

n73 (Add):

successors

n84 0

predecessors

n74 0

n75 0

n76 (Add):

predecessors

n77 0

n75 (Sub):

successors

n90 0

n73 0

predecessors

n59 0

n60 0

n78 (Mul):

successors

n93 0

predecessors

n17 0

n11 0

n77 (Add):

successors

n82 0

n76 0

n110 (Mem):

successors

n90 0

n79 (Mem):

predecessors

n3 0

n81 (Mul):

successors

n46 0

predecessors

n2 0

n17 0

n80 (Mem):

successors

n31 0

n83 (Mem):

successors

n10 0

n82 (And):

successors

n100 0

predecessors

n77 0

n85 (Shift):

successors

n19 0

predecessors

n63 0

n86 0

n84 (Mem):

predecessors

n73 0

n87 (Mem):

predecessors

n88 0

n86 (Add):

successors

n103 0

n85 0

n95 0

n89 (Mem):

predecessors

n90 0

n7 0

n88 (Add):

successors

n87 0

predecessors

n25 0

n99 0

n100 (Cmp):

predecessors

n82 0

n103 (Add):

predecessors

n86 0

n104 (Mem):

successors

n69 0

n101 (Mem):

predecessors

n70 0

n102 (Mem):

successors

n62 0

n107 (Mem):

predecessors

n105 0

n9 0

n108 (Mem):

predecessors

n91 0

n105 (Sub):

successors

n107 0

predecessors

n106 0

n32 0

n106 (Mem):

successors

n105 0

n109 (Mem):

predecessors

n50 0

n7 0

Nr of Nodes : 111

ASAP

Found schedule of length 19

n92 : [0:1]

n4 : [0:1]

n72 : [0:1]

n7 : [0:0]

n71 : [0:1]

n96 : [0:17]

n74 : [0:1]

n9 : [0:0]

n51 : [0:1]

n98 : [0:1]

n53 : [0:1]

n99 : [0:1]

n77 : [0:0]

n110 : [0:1]

n18 : [0:1]

n39 : [0:1]

n80 : [0:1]

n83 : [0:1]

n42 : [0:17]

n86 : [0:0]

n45 : [0:1]

n67 : [0:1]

n29 : [0:0]

n104 : [0:1]

n102 : [0:1]

n106 : [0:1]

n2 : [1:2]

n6 : [1:2]

n76 : [1:1]

n11 : [1:2]

n14 : [1:2]

n35 : [1:2]

n16 : [1:2]

n82 : [1:1]

n43 : [1:2]

n22 : [1:2]

n27 : [1:1]

n103 : [1:1]

n28 : [1:1]

n64 : [2:2]

n66 : [2:2]

n100 : [2:2]

n26 : [2:2]

n63 : [3:3]

n65 : [3:3]

n37 : [4:4]

n85 : [4:4]

n36 : [5:5]

n19 : [5:5]

n13 : [6:7]

n1 : [6:7]

n17 : [6:7]

n21 : [6:7]

n0 : [8:11]

n81 : [8:11]

n60 : [8:11]

n52 : [8:11]

n20 : [8:11]

n12 : [8:11]

n23 : [8:11]

n78 : [8:11]

n34 : [8:11]

n56 : [8:11]

n33 : [8:11]

n55 : [8:11]

n47 : [8:11]

n24 : [8:11]

n15 : [8:11]

n59 : [8:11]

n25 : [12:12]

n46 : [12:12]

n5 : [12:12]

n93 : [12:12]

n40 : [12:12]

n32 : [12:12]

n54 : [12:12]

n75 : [12:12]

n90 : [13:13]

n3 : [13:13]

n70 : [13:13]

n91 : [13:13]

n50 : [13:13]

n62 : [13:13]

n73 : [13:13]

n10 : [13:13]

n31 : [13:13]

n88 : [13:13]

n44 : [13:13]

n58 : [13:13]

n69 : [13:13]

n49 : [13:13]

n38 : [13:13]

n105 : [13:13]

n61 : [14:15]

n94 : [14:15]

n8 : [14:15]

n30 : [14:15]

n84 : [14:15]

n87 : [14:15]

n97 : [14:15]

n89 : [14:15]

n79 : [14:15]

n57 : [14:15]

n68 : [14:15]

n48 : [14:15]

n101 : [14:15]

n107 : [14:15]

n108 : [14:15]

n109 : [14:15]

n41 : [18:18]

n95 : [18:18]

Registered resources

SUB 13 11.2

SUB 12 5.6

SUB 3 2.8

SUB 2 2.8

CMP 18 4.2

CMP 2 4.2

MUL 11 36.8

MUL 10 36.8

MUL 9 36.8

MUL 8 36.8

DIV 17 8.6

DIV 16 8.6

DIV 15 8.6

DIV 14 8.6

DIV 13 8.6

DIV 12 8.6

DIV 11 8.6

DIV 10 8.6

DIV 9 8.6

DIV 8 8.6

DIV 7 8.6

DIV 6 8.6

DIV 5 8.6

DIV 4 8.6

DIV 3 8.6

DIV 2 8.6

DIV 1 8.6

DIV 0 8.6

AND 5 4.0

AND 1 4.0

ADD 13 8.0

ADD 0 5.0

ADD 12 4.0

ADD 1 3.0

SH 4 4.0

MEM 1 243.0

MEM 0 171.0

MEM 15 144.0

MEM 14 144.0

MEM 2 72.0

MEM 7 36.0

MEM 6 36.0

cost = 319.8

ALAP

Found schedule of length 19

n96 : [0:17]

n42 : [0:17]

n67 : [3:4]

n64 : [5:5]

n66 : [5:5]

n63 : [6:6]

n65 : [6:6]

n86 : [6:6]

n37 : [7:7]

n18 : [7:8]

n85 : [7:7]

n98 : [7:8]

n36 : [8:8]

n19 : [8:8]

n7 : [8:8]

n9 : [8:8]

n1 : [9:10]

n2 : [9:10]

n6 : [9:10]

n21 : [9:10]

n43 : [9:10]

n11 : [9:10]

n22 : [9:10]

n14 : [9:10]

n35 : [9:10]

n13 : [9:10]

n16 : [9:10]

n17 : [9:10]

n0 : [11:14]

n81 : [11:14]

n60 : [11:14]

n52 : [11:14]

n20 : [11:14]

n23 : [11:14]

n78 : [11:14]

n56 : [11:14]

n34 : [11:14]

n12 : [11:14]

n55 : [11:14]

n33 : [11:14]

n47 : [11:14]

n24 : [11:14]

n59 : [11:14]

n15 : [11:14]

n4 : [14:15]

n92 : [14:15]

n72 : [14:15]

n71 : [14:15]

n74 : [14:15]

n51 : [14:15]

n53 : [14:15]

n99 : [14:15]

n110 : [14:15]

n39 : [14:15]

n80 : [14:15]

n83 : [14:15]

n45 : [14:15]

n104 : [14:15]

n102 : [14:15]

n106 : [14:15]

n5 : [15:15]

n93 : [15:15]

n54 : [15:15]

n32 : [15:15]

n75 : [15:15]

n40 : [15:15]

n25 : [15:15]

n46 : [15:15]

n90 : [16:16]

n3 : [16:16]

n70 : [16:16]

n91 : [16:16]

n50 : [16:16]

n62 : [16:16]

n73 : [16:16]

n10 : [16:16]

n31 : [16:16]

n44 : [16:16]

n88 : [16:16]

n77 : [16:16]

n58 : [16:16]

n69 : [16:16]

n38 : [16:16]

n49 : [16:16]

n29 : [16:16]

n105 : [16:16]

n94 : [17:18]

n61 : [17:18]

n82 : [17:17]

n30 : [17:18]

n8 : [17:18]

n84 : [17:18]

n87 : [17:18]

n97 : [17:18]

n89 : [17:18]

n57 : [17:18]

n68 : [17:18]

n79 : [17:18]

n27 : [17:17]

n48 : [17:18]

n101 : [17:18]

n107 : [17:18]

n108 : [17:18]

n109 : [17:18]

n41 : [18:18]

n95 : [18:18]

n76 : [18:18]

n100 : [18:18]

n26 : [18:18]

n103 : [18:18]

n28 : [18:18]

Registered resources

SUB 16 11.2

SUB 15 5.6

SUB 6 2.8

SUB 5 2.8

CMP 18 8.4

MUL 14 36.8

MUL 13 36.8

MUL 12 36.8

MUL 11 36.8

AND 17 4.0

AND 8 4.0

DIV 17 8.6

DIV 16 8.6

DIV 15 8.6

DIV 14 8.6

DIV 13 8.6

DIV 12 8.6

DIV 11 8.6

DIV 10 8.6

DIV 9 8.6

DIV 8 8.6

DIV 7 8.6

DIV 6 8.6

DIV 5 8.6

DIV 4 8.6

DIV 3 8.6

DIV 2 8.6

DIV 1 8.6

DIV 0 8.6

ADD 16 10.0

ADD 15 4.0

ADD 18 3.0

ADD 8 2.0

ADD 6 1.0

SH 7 4.0

MEM 18 144.0

MEM 17 144.0

MEM 15 144.0

MEM 14 144.0

MEM 10 108.0

MEM 9 108.0

MEM 8 18.0

MEM 7 18.0

MEM 4 9.0

MEM 3 9.0

cost = 227.0

# FFT-fft3-688-929

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62354:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/FFT-fft3-688-929.dot

Scheduling scheduler-framework-master/graphs/FFT-fft3-688-929.dot

n0 (Mem):

predecessors

n1 0

n2 0

n1 (Add):

successors

n36 0

n0 0

n38 0

n37 0

n41 0

n9 0

n10 0

n21 0

n20 0

n12 0

n44 0

n2 (Add):

successors

n0 0

predecessors

n37 0

n29 0

n3 (Mem):

predecessors

n4 0

n4 (Add):

successors

n3 0

predecessors

n35 0

n34 0

n5 (Add):

successors

n14 0

n40 0

predecessors

n6 0

n7 0

n6 (Mul):

successors

n5 0

predecessors

n16 0

n17 0

n7 (Mul):

successors

n5 0

predecessors

n26 0

n33 0

n8 (Mul):

successors

n29 0

predecessors

n9 0

n10 0

n9 (Mem):

successors

n19 0

n8 0

predecessors

n47 0

n1 0

n10 (Mem):

successors

n18 0

n8 0

predecessors

n1 0

n12 (Mem):

successors

n11 0

n22 0

predecessors

n1 0

n11 (Sub):

successors

n48 0

predecessors

n13 0

n12 0

n14 (Sub):

successors

n23 0

predecessors

n15 0

n5 0

n13 (Add):

successors

n11 0

n22 0

predecessors

n18 0

n19 0

n16 (Mem):

successors

n6 0

n32 0

predecessors

n31 0

n15 (Mem):

successors

n14 0

n40 0

n18 (Mul):

successors

n13 0

predecessors

n10 0

n20 0

n17 (Mem):

successors

n25 0

n6 0

n19 (Mul):

successors

n13 0

predecessors

n41 0

n9 0

n21 (Mem):

predecessors

n1 0

n22 0

n20 (Mem):

successors

n18 0

n30 0

predecessors

n1 0

n31 0

n23 (Mem):

predecessors

n14 0

n24 0

n22 (Add):

successors

n21 0

predecessors

n13 0

n12 0

n25 (Mul):

successors

n34 0

predecessors

n26 0

n17 0

n24 (Add):

successors

n46 0

n23 0

n27 (Add):

predecessors

n28 0

n26 (Mem):

successors

n25 0

n7 0

predecessors

n47 0

n29 (Sub):

successors

n2 0

n43 0

predecessors

n8 0

n30 0

n28 (Add):

successors

n27 0

n30 (Mul):

successors

n29 0

predecessors

n41 0

n20 0

n32 (Mul):

successors

n34 0

predecessors

n16 0

n33 0

n31 (Mem):

successors

n16 0

n20 0

n34 (Sub):

successors

n4 0

n45 0

predecessors

n25 0

n32 0

n33 (Mem):

successors

n7 0

n32 0

n36 (Add):

successors

n48 0

n42 0

predecessors

n1 0

n35 (Mem):

successors

n4 0

n45 0

n38 (Add):

predecessors

n1 0

n37 (Mem):

successors

n2 0

n43 0

predecessors

n1 0

n39 (Mem):

predecessors

n40 0

n41 (Mem):

successors

n19 0

n30 0

predecessors

n1 0

n40 (Add):

successors

n39 0

predecessors

n15 0

n5 0

n43 (Sub):

successors

n42 0

predecessors

n37 0

n29 0

n42 (Mem):

predecessors

n36 0

n43 0

n45 (Sub):

successors

n46 0

predecessors

n35 0

n34 0

n44 (Cmp):

predecessors

n1 0

n47 (Mem):

successors

n26 0

n9 0

n46 (Mem):

predecessors

n24 0

n45 0

n49 (Cmp):

n48 (Mem):

predecessors

n36 0

n11 0

Nr of Nodes : 50

ASAP

Found schedule of length 12

n47 : [0:1]

n24 : [0:0]

n35 : [0:1]

n49 : [0:0]

n1 : [0:0]

n15 : [0:1]

n17 : [0:1]

n28 : [0:0]

n31 : [0:1]

n33 : [0:1]

n41 : [1:2]

n10 : [1:2]

n12 : [1:2]

n44 : [1:1]

n36 : [1:1]

n38 : [1:1]

n27 : [1:1]

n37 : [1:2]

n16 : [2:3]

n26 : [2:3]

n9 : [2:3]

n20 : [2:3]

n25 : [4:7]

n18 : [4:7]

n19 : [4:7]

n6 : [4:7]

n7 : [4:7]

n8 : [4:7]

n30 : [4:7]

n32 : [4:7]

n13 : [8:8]

n29 : [8:8]

n5 : [8:8]

n34 : [8:8]

n14 : [9:9]

n2 : [9:9]

n4 : [9:9]

n40 : [9:9]

n43 : [9:9]

n45 : [9:9]

n11 : [9:9]

n22 : [9:9]

n46 : [10:11]

n0 : [10:11]

n48 : [10:11]

n3 : [10:11]

n39 : [10:11]

n21 : [10:11]

n42 : [10:11]

n23 : [10:11]

Registered resources

SUB 9 5.6

SUB 8 2.8

CMP 1 2.1

CMP 0 2.1

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MUL 4 18.4

ADD 9 4.0

ADD 1 3.0

ADD 0 3.0

ADD 8 2.0

MEM 1 90.0

MEM 11 72.0

MEM 10 72.0

MEM 2 72.0

MEM 0 54.0

MEM 3 36.0

cost = 120.1

ALAP

Found schedule of length 12

n47 : [0:1]

n31 : [0:1]

n1 : [1:1]

n16 : [2:3]

n26 : [2:3]

n17 : [2:3]

n41 : [2:3]

n9 : [2:3]

n10 : [2:3]

n20 : [2:3]

n33 : [2:3]

n25 : [4:7]

n18 : [4:7]

n19 : [4:7]

n6 : [4:7]

n7 : [4:7]

n8 : [4:7]

n30 : [4:7]

n32 : [4:7]

n35 : [7:8]

n15 : [7:8]

n37 : [7:8]

n12 : [7:8]

n13 : [8:8]

n29 : [8:8]

n5 : [8:8]

n34 : [8:8]

n36 : [9:9]

n14 : [9:9]

n24 : [9:9]

n2 : [9:9]

n4 : [9:9]

n40 : [9:9]

n43 : [9:9]

n45 : [9:9]

n11 : [9:9]

n22 : [9:9]

n46 : [10:11]

n0 : [10:11]

n48 : [10:11]

n3 : [10:11]

n39 : [10:11]

n28 : [10:10]

n21 : [10:11]

n42 : [10:11]

n23 : [10:11]

n27 : [11:11]

n38 : [11:11]

n49 : [11:11]

n44 : [11:11]

Registered resources

SUB 9 5.6

SUB 8 2.8

CMP 11 4.2

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MUL 4 18.4

ADD 9 6.0

ADD 11 2.0

ADD 8 2.0

ADD 10 1.0

ADD 1 1.0

MEM 11 72.0

MEM 10 72.0

MEM 3 72.0

MEM 2 72.0

MEM 8 36.0

MEM 7 36.0

MEM 1 18.0

MEM 0 18.0

cost = 106.2

# FIR-main-75-264

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=62386:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/FIR-main-75-264.dot

Scheduling scheduler-framework-master/graphs/FIR-main-75-264.dot

n0 (Add):

successors

n15 0

predecessors

n1 0

n2 0

n1 (Add):

successors

n0 0

predecessors

n32 0

n31 0

n2 (Add):

successors

n0 0

predecessors

n6 0

n7 0

n3 (Mul):

successors

n21 0

predecessors

n4 0

n5 0

n4 (Mem):

successors

n3 0

n5 (Mem):

successors

n3 0

n6 (Mul):

successors

n2 0

predecessors

n19 0

n20 0

n50 (Mem):

successors

n31 0

n7 (Mul):

successors

n2 0

predecessors

n13 0

n12 0

n8 (Mem):

predecessors

n9 0

n52 (Cmp):

n9 (Other):

successors

n8 0

predecessors

n18 0

n51 (Add):

n10 (Mem):

predecessors

n11 0

n12 (Mem):

successors

n7 0

n11 (Mem):

successors

n10 0

n14 (Mem):

predecessors

n15 0

n13 (Mem):

successors

n7 0

n16 (Other):

predecessors

n17 0

n15 (Add):

successors

n14 0

predecessors

n25 0

n0 0

n18 (Other):

successors

n9 0

n17 (Add):

successors

n16 0

n19 (Mem):

successors

n6 0

n21 (Add):

successors

n25 0

predecessors

n3 0

n22 0

n20 (Mem):

successors

n6 0

n23 (Mem):

successors

n22 0

n22 (Mul):

successors

n21 0

predecessors

n24 0

n23 0

n25 (Add):

successors

n15 0

predecessors

n26 0

n21 0

n24 (Mem):

successors

n22 0

n27 (Mem):

predecessors

n28 0

n26 (Add):

successors

n25 0

predecessors

n36 0

n33 0

n29 (Mem):

predecessors

n30 0

n28 (Mem):

successors

n27 0

n30 (Mem):

successors

n29 0

n32 (Mul):

successors

n1 0

predecessors

n41 0

n42 0

n31 (Mul):

successors

n1 0

predecessors

n49 0

n50 0

n34 (Mem):

successors

n33 0

n33 (Mul):

successors

n26 0

predecessors

n35 0

n34 0

n36 (Mul):

successors

n26 0

predecessors

n38 0

n37 0

n35 (Mem):

successors

n33 0

n38 (Mem):

successors

n36 0

n37 (Mem):

successors

n36 0

n39 (Mem):

predecessors

n40 0

n41 (Mem):

successors

n32 0

n40 (Mem):

successors

n39 0

n43 (Mem):

predecessors

n44 0

n42 (Mem):

successors

n32 0

n45 (Mem):

predecessors

n46 0

n44 (Mem):

successors

n43 0

n47 (Mem):

predecessors

n48 0

n46 (Mem):

successors

n45 0

n49 (Mem):

successors

n31 0

n48 (Mem):

successors

n47 0

Nr of Nodes : 53

ASAP

Found schedule of length 11

n4 : [0:1]

n5 : [0:1]

n50 : [0:1]

n52 : [0:0]

n30 : [0:1]

n51 : [0:0]

n12 : [0:1]

n34 : [0:1]

n11 : [0:1]

n13 : [0:1]

n35 : [0:1]

n38 : [0:1]

n37 : [0:1]

n18 : [0:0]

n17 : [0:0]

n19 : [0:1]

n41 : [0:1]

n40 : [0:1]

n20 : [0:1]

n42 : [0:1]

n23 : [0:1]

n44 : [0:1]

n24 : [0:1]

n46 : [0:1]

n49 : [0:1]

n48 : [0:1]

n28 : [0:1]

n9 : [1:1]

n16 : [1:1]

n3 : [2:5]

n6 : [2:5]

n7 : [2:5]

n8 : [2:3]

n10 : [2:3]

n32 : [2:5]

n43 : [2:3]

n31 : [2:5]

n45 : [2:3]

n33 : [2:5]

n22 : [2:5]

n36 : [2:5]

n47 : [2:3]

n27 : [2:3]

n29 : [2:3]

n39 : [2:3]

n1 : [6:6]

n26 : [6:6]

n2 : [6:6]

n21 : [6:6]

n25 : [7:7]

n0 : [7:7]

n15 : [8:8]

n14 : [9:10]

Registered resources

MUL 5 18.4

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

ADD 6 4.0

ADD 7 2.0

ADD 0 2.0

ADD 8 1.0

OTHER 1 2.0

OTHER 0 1.0

CMP 0 2.1

MEM 1 207.0

MEM 0 207.0

MEM 3 72.0

MEM 2 72.0

MEM 10 9.0

MEM 9 9.0

cost = 233.5

ALAP

Found schedule of length 11

n4 : [0:1]

n5 : [0:1]

n50 : [0:1]

n41 : [0:1]

n20 : [0:1]

n42 : [0:1]

n12 : [0:1]

n34 : [0:1]

n23 : [0:1]

n13 : [0:1]

n35 : [0:1]

n24 : [0:1]

n38 : [0:1]

n49 : [0:1]

n37 : [0:1]

n19 : [0:1]

n36 : [2:5]

n3 : [2:5]

n6 : [2:5]

n7 : [2:5]

n32 : [2:5]

n31 : [2:5]

n33 : [2:5]

n22 : [2:5]

n26 : [6:6]

n1 : [6:6]

n2 : [6:6]

n21 : [6:6]

n25 : [7:7]

n46 : [7:8]

n0 : [7:7]

n48 : [7:8]

n18 : [7:7]

n28 : [7:8]

n30 : [7:8]

n40 : [7:8]

n11 : [7:8]

n44 : [7:8]

n15 : [8:8]

n9 : [8:8]

n14 : [9:10]

n47 : [9:10]

n27 : [9:10]

n29 : [9:10]

n39 : [9:10]

n17 : [9:9]

n8 : [9:10]

n10 : [9:10]

n43 : [9:10]

n45 : [9:10]

n16 : [10:10]

n52 : [10:10]

n51 : [10:10]

Registered resources

MUL 5 18.4

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

OTHER 10 1.0

OTHER 8 1.0

OTHER 7 1.0

ADD 6 4.0

ADD 7 2.0

ADD 10 1.0

ADD 9 1.0

ADD 8 1.0

CMP 10 2.1

MEM 1 144.0

MEM 0 144.0

MEM 10 81.0

MEM 9 81.0

MEM 8 63.0

MEM 7 63.0

cost = 169.5

# FIR-main-75-454

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50201:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/FIR-main-75-454.dot

Scheduling scheduler-framework-master/graphs/FIR-main-75-454.dot

n90 (Mem):

successors

n16 0

n92 (Mem):

successors

n91 0

n91 (Mem):

predecessors

n92 0

n94 (Mem):

successors

n93 0

n93 (Mem):

predecessors

n94 0

n96 (Mem):

successors

n12 0

n95 (Add):

successors

n41 0

predecessors

n54 0

n86 0

n10 (Add):

successors

n58 0

n102 0

n9 0

n20 0

n98 (Mem):

successors

n56 0

n97 (Mem):

successors

n12 0

n12 (Mul):

successors

n11 0

predecessors

n96 0

n97 0

n11 (Add):

successors

n75 0

predecessors

n13 0

n12 0

n99 (Mem):

successors

n56 0

n14 (Add):

successors

n75 0

predecessors

n16 0

n15 0

n13 (Mul):

successors

n11 0

predecessors

n61 0

n62 0

n16 (Mul):

successors

n14 0

predecessors

n90 0

n89 0

n15 (Mul):

successors

n14 0

predecessors

n52 0

n53 0

n18 (Mem):

successors

n17 0

n17 (Mul):

successors

n86 0

predecessors

n18 0

n19 0

n19 (Mem):

successors

n17 0

n21 (Add):

successors

n20 0

predecessors

n37 0

n75 0

n20 (Mem):

predecessors

n10 0

n21 0

n23 (Add):

successors

n22 0

predecessors

n4 0

n22 (Other):

predecessors

n23 0

n25 (Mem):

successors

n24 0

n24 (Mul):

successors

n39 0

predecessors

n25 0

n26 0

n27 (Mem):

predecessors

n28 0

n26 (Mem):

successors

n24 0

n29 (Mul):

successors

n65 0

predecessors

n30 0

n31 0

n28 (Other):

successors

n27 0

predecessors

n57 0

n30 (Mem):

successors

n29 0

n32 (Mem):

predecessors

n33 0

n31 (Mem):

successors

n29 0

n34 (Other):

successors

n85 0

predecessors

n9 0

n33 (Mem):

successors

n32 0

n36 (Mem):

successors

n35 0

n35 (Mem):

predecessors

n36 0

n38 (Add):

successors

n37 0

predecessors

n47 0

n42 0

n37 (Add):

successors

n21 0

predecessors

n38 0

n39 0

n39 (Add):

successors

n37 0

predecessors

n24 0

n78 0

n41 (Add):

successors

n40 0

predecessors

n63 0

n95 0

n40 (Mem):

predecessors

n41 0

n43 (Mem):

successors

n42 0

n42 (Mul):

successors

n38 0

predecessors

n43 0

n44 0

n45 (Mem):

predecessors

n46 0

n44 (Mem):

successors

n42 0

n47 (Mul):

successors

n38 0

predecessors

n49 0

n48 0

n46 (Mem):

successors

n45 0

n49 (Mem):

successors

n47 0

n48 (Mem):

successors

n47 0

n0 (Mem):

predecessors

n1 0

n1 (Mem):

successors

n0 0

n2 (Mem):

predecessors

n3 0

n3 (Mem):

successors

n2 0

n4 (Other):

successors

n23 0

predecessors

n5 0

n5 (Add):

successors

n4 0

n6 (Mul):

successors

n86 0

predecessors

n7 0

n8 0

n50 (Mem):

predecessors

n51 0

n7 (Mem):

successors

n6 0

n8 (Mem):

successors

n6 0

n52 (Mem):

successors

n15 0

n9 (Other):

successors

n34 0

predecessors

n10 0

n51 (Mem):

successors

n50 0

n54 (Add):

successors

n95 0

predecessors

n56 0

n55 0

n53 (Mem):

successors

n15 0

n56 (Mul):

successors

n54 0

predecessors

n98 0

n99 0

n55 (Mul):

successors

n54 0

predecessors

n69 0

n68 0

n58 (Add):

predecessors

n10 0

n57 (Other):

successors

n28 0

n59 (Mem):

predecessors

n60 0

n61 (Mem):

successors

n13 0

n60 (Mem):

successors

n59 0

n63 (Add):

successors

n41 0

predecessors

n65 0

n64 0

n62 (Mem):

successors

n13 0

n65 (Add):

successors

n63 0

predecessors

n29 0

n70 0

n64 (Add):

successors

n63 0

predecessors

n76 0

n77 0

n67 (Mem):

successors

n66 0

n66 (Mem):

predecessors

n67 0

n69 (Mem):

successors

n55 0

n68 (Mem):

successors

n55 0

n70 (Mul):

successors

n65 0

predecessors

n72 0

n71 0

n72 (Mem):

successors

n70 0

n71 (Mem):

successors

n70 0

n74 (Mem):

successors

n73 0

n73 (Mem):

predecessors

n74 0

n76 (Mul):

successors

n64 0

predecessors

n100 0

n101 0

n75 (Add):

successors

n21 0

predecessors

n14 0

n11 0

n78 (Mul):

successors

n39 0

predecessors

n79 0

n80 0

n77 (Mul):

successors

n64 0

predecessors

n87 0

n88 0

n79 (Mem):

successors

n78 0

n81 (Mem):

predecessors

n82 0

n80 (Mem):

successors

n78 0

n83 (Mem):

predecessors

n84 0

n82 (Mem):

successors

n81 0

n85 (Mem):

predecessors

n34 0

n84 (Mem):

successors

n83 0

n87 (Mem):

successors

n77 0

n86 (Add):

successors

n95 0

predecessors

n17 0

n6 0

n89 (Mem):

successors

n16 0

n88 (Mem):

successors

n77 0

n100 (Mem):

successors

n76 0

n103 (Mem):

predecessors

n104 0

n104 (Mem):

successors

n103 0

n101 (Mem):

successors

n76 0

n102 (Cmp):

predecessors

n10 0

n105 (Cmp):

Nr of Nodes : 106

ASAP

Found schedule of length 11

n1 : [0:1]

n90 : [0:1]

n3 : [0:1]

n92 : [0:1]

n5 : [0:0]

n94 : [0:1]

n7 : [0:1]

n96 : [0:1]

n8 : [0:1]

n52 : [0:1]

n51 : [0:1]

n10 : [0:0]

n98 : [0:1]

n97 : [0:1]

n53 : [0:1]

n99 : [0:1]

n57 : [0:0]

n18 : [0:1]

n19 : [0:1]

n61 : [0:1]

n60 : [0:1]

n62 : [0:1]

n67 : [0:1]

n25 : [0:1]

n69 : [0:1]

n68 : [0:1]

n26 : [0:1]

n72 : [0:1]

n71 : [0:1]

n30 : [0:1]

n74 : [0:1]

n31 : [0:1]

n33 : [0:1]

n36 : [0:1]

n79 : [0:1]

n80 : [0:1]

n82 : [0:1]

n84 : [0:1]

n43 : [0:1]

n87 : [0:1]

n89 : [0:1]

n44 : [0:1]

n88 : [0:1]

n46 : [0:1]

n100 : [0:1]

n49 : [0:1]

n48 : [0:1]

n104 : [0:1]

n101 : [0:1]

n105 : [0:0]

n4 : [1:1]

n9 : [1:1]

n58 : [1:1]

n28 : [1:1]

n102 : [1:1]

n0 : [2:3]

n2 : [2:3]

n70 : [2:5]

n91 : [2:3]

n6 : [2:5]

n50 : [2:3]

n93 : [2:3]

n73 : [2:3]

n32 : [2:3]

n76 : [2:5]

n12 : [2:5]

n56 : [2:5]

n78 : [2:5]

n34 : [2:2]

n55 : [2:5]

n77 : [2:5]

n13 : [2:5]

n35 : [2:3]

n16 : [2:5]

n15 : [2:5]

n59 : [2:3]

n17 : [2:5]

n81 : [2:3]

n83 : [2:3]

n42 : [2:5]

n45 : [2:3]

n23 : [2:2]

n66 : [2:3]

n47 : [2:5]

n24 : [2:5]

n27 : [2:3]

n29 : [2:5]

n103 : [2:3]

n85 : [3:4]

n22 : [3:3]

n14 : [6:6]

n38 : [6:6]

n39 : [6:6]

n54 : [6:6]

n65 : [6:6]

n64 : [6:6]

n86 : [6:6]

n11 : [6:6]

n37 : [7:7]

n63 : [7:7]

n95 : [7:7]

n75 : [7:7]

n41 : [8:8]

n21 : [8:8]

n40 : [9:10]

n20 : [9:10]

Registered resources

MUL 5 36.8

MUL 4 36.8

MUL 3 36.8

MUL 2 36.8

OTHER 1 3.0

OTHER 3 1.0

OTHER 2 1.0

OTHER 0 1.0

CMP 1 2.1

CMP 0 2.1

ADD 6 8.0

ADD 7 4.0

ADD 8 2.0

ADD 0 2.0

ADD 2 1.0

ADD 1 1.0

MEM 1 414.0

MEM 0 414.0

MEM 3 144.0

MEM 2 135.0

MEM 10 18.0

MEM 9 18.0

MEM 4 9.0

cost = 463.9

ALAP

Found schedule of length 11

n90 : [0:1]

n72 : [0:1]

n71 : [0:1]

n7 : [0:1]

n8 : [0:1]

n96 : [0:1]

n52 : [0:1]

n30 : [0:1]

n98 : [0:1]

n97 : [0:1]

n53 : [0:1]

n31 : [0:1]

n99 : [0:1]

n79 : [0:1]

n18 : [0:1]

n19 : [0:1]

n80 : [0:1]

n61 : [0:1]

n62 : [0:1]

n43 : [0:1]

n87 : [0:1]

n89 : [0:1]

n44 : [0:1]

n88 : [0:1]

n69 : [0:1]

n25 : [0:1]

n100 : [0:1]

n68 : [0:1]

n49 : [0:1]

n48 : [0:1]

n26 : [0:1]

n101 : [0:1]

n70 : [2:5]

n6 : [2:5]

n76 : [2:5]

n42 : [2:5]

n78 : [2:5]

n56 : [2:5]

n12 : [2:5]

n55 : [2:5]

n77 : [2:5]

n47 : [2:5]

n24 : [2:5]

n13 : [2:5]

n16 : [2:5]

n15 : [2:5]

n29 : [2:5]

n17 : [2:5]

n14 : [6:6]

n38 : [6:6]

n39 : [6:6]

n65 : [6:6]

n54 : [6:6]

n10 : [6:6]

n64 : [6:6]

n86 : [6:6]

n11 : [6:6]

n1 : [7:8]

n3 : [7:8]

n92 : [7:8]

n5 : [7:7]

n94 : [7:8]

n82 : [7:8]

n60 : [7:8]

n74 : [7:8]

n63 : [7:7]

n51 : [7:8]

n84 : [7:8]

n95 : [7:7]

n9 : [7:7]

n75 : [7:7]

n67 : [7:8]

n33 : [7:8]

n36 : [7:8]

n46 : [7:8]

n57 : [7:7]

n37 : [7:7]

n104 : [7:8]

n4 : [8:8]

n41 : [8:8]

n21 : [8:8]

n34 : [8:8]

n28 : [8:8]

n0 : [9:10]

n2 : [9:10]

n81 : [9:10]

n91 : [9:10]

n50 : [9:10]

n83 : [9:10]

n93 : [9:10]

n85 : [9:10]

n40 : [9:10]

n73 : [9:10]

n32 : [9:10]

n20 : [9:10]

n45 : [9:10]

n23 : [9:9]

n66 : [9:10]

n35 : [9:10]

n27 : [9:10]

n59 : [9:10]

n103 : [9:10]

n22 : [10:10]

n58 : [10:10]

n102 : [10:10]

n105 : [10:10]

Registered resources

MUL 5 36.8

MUL 4 36.8

MUL 3 36.8

MUL 2 36.8

OTHER 8 3.0

OTHER 7 2.0

OTHER 10 1.0

CMP 10 4.2

ADD 6 9.0

ADD 7 5.0

ADD 8 2.0

ADD 10 1.0

ADD 9 1.0

MEM 1 288.0

MEM 0 288.0

MEM 10 162.0

MEM 9 162.0

MEM 8 126.0

MEM 7 126.0

cost = 341.0

# GrayscaleFilter-filter-13-113

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50215:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/GrayscaleFilter-filter-13-113.dot

Scheduling scheduler-framework-master/graphs/GrayscaleFilter-filter-13-113.dot

n0 (And):

successors

n16 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

n2 0

n3 0

n12 0

n2 (Shift):

successors

n9 0

predecessors

n1 0

n3 (And):

successors

n8 0

predecessors

n1 0

n4 (Shift):

successors

n14 0

n17 0

n8 0

predecessors

n5 0

n5 (Add):

successors

n4 0

predecessors

n16 0

n15 0

n6 (Mul):

successors

n15 0

predecessors

n7 0

n7 (And):

successors

n6 0

predecessors

n12 0

n8 (Or):

successors

n10 0

predecessors

n3 0

n4 0

n9 (And):

successors

n13 0

predecessors

n2 0

n10 (Or):

successors

n18 0

predecessors

n8 0

n11 0

n20 (Cmp):

n12 (Shift):

successors

n7 0

predecessors

n1 0

n11 (Or):

successors

n10 0

predecessors

n14 0

n17 0

n14 (Shift):

successors

n11 0

predecessors

n4 0

n13 (Mul):

successors

n15 0

predecessors

n9 0

n16 (Mul):

successors

n5 0

predecessors

n0 0

n15 (Add):

successors

n5 0

predecessors

n13 0

n6 0

n18 (Mem):

predecessors

n10 0

n17 (Shift):

successors

n11 0

predecessors

n4 0

n19 (Add):

Nr of Nodes : 21

ASAP

Found schedule of length 16

n1 : [0:1]

n19 : [0:0]

n20 : [0:0]

n0 : [2:2]

n2 : [2:2]

n3 : [2:2]

n12 : [2:2]

n16 : [3:6]

n7 : [3:3]

n9 : [3:3]

n13 : [4:7]

n6 : [4:7]

n15 : [8:8]

n5 : [9:9]

n4 : [10:10]

n14 : [11:11]

n17 : [11:11]

n8 : [11:11]

n11 : [12:12]

n10 : [13:13]

n18 : [14:15]

Registered resources

MUL 6 6.8999999999999995

MUL 5 6.8999999999999995

MUL 4 6.8999999999999995

MUL 7 4.6

MUL 3 2.3

SH 11 4.0

SH 2 4.0

SH 10 2.0

CMP 0 2.1

AND 3 4.0

AND 2 4.0

ADD 9 1.0

ADD 8 1.0

ADD 0 1.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

MEM 15 9.0

MEM 14 9.0

MEM 1 9.0

MEM 0 9.0

cost = 29.0

ALAP

Found schedule of length 16

n1 : [0:1]

n2 : [2:2]

n12 : [2:2]

n7 : [3:3]

n9 : [3:3]

n13 : [4:7]

n0 : [4:4]

n6 : [4:7]

n16 : [5:8]

n15 : [8:8]

n5 : [9:9]

n4 : [10:10]

n14 : [11:11]

n3 : [11:11]

n17 : [11:11]

n8 : [12:12]

n11 : [12:12]

n10 : [13:13]

n18 : [14:15]

n19 : [15:15]

n20 : [15:15]

Registered resources

MUL 7 6.8999999999999995

MUL 6 6.8999999999999995

MUL 5 6.8999999999999995

MUL 4 4.6

MUL 8 2.3

SH 11 4.0

SH 2 4.0

SH 10 2.0

CMP 15 2.1

AND 3 4.0

AND 11 2.0

AND 4 2.0

ADD 15 1.0

ADD 9 1.0

ADD 8 1.0

OR 12 4.0

OR 13 2.0

MEM 15 9.0

MEM 14 9.0

MEM 1 9.0

MEM 0 9.0

cost = 31.0

# IDCT

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50227:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/IDCT.dot

Scheduling scheduler-framework-master/graphs/IDCT.dot

d30 (Add):

predecessors

d7 0

d21 (Mul):

successors

d23 0

predecessors

d7 0

d10 (Other):

successors

d16 0

predecessors

d7 0

d23 (Add):

successors

d24 0

predecessors

d21 0

d7 0

d25 (Mul):

successors

d26 0

predecessors

d7 0

d24 0

d16 0

d13 (Mul):

successors

d15 0

predecessors

d7 0

d24 (Mem):

successors

d25 0

predecessors

d7 0

d23 0

d18 0

d16 (Mem):

successors

d25 0

predecessors

d10 0

d7 0

d15 0

d27 (Mem):

predecessors

d7 0

d26 0

d15 (Add):

successors

d16 0

predecessors

d7 0

d13 0

d26 (Add):

successors

d27 0

predecessors

d7 0

d25 0

d18 (Other):

successors

d24 0

predecessors

d7 0

d7 (Cmp):

successors

d30 0

d21 0

d10 0

d23 0

d25 0

d13 0

d24 0

d27 0

d16 0

d15 0

d26 0

d18 0

Nr of Nodes : 13

ASAP

Found schedule of length 15

d7 : [0:0]

d30 : [1:1]

d21 : [1:4]

d10 : [1:1]

d13 : [1:4]

d18 : [1:1]

d23 : [5:5]

d15 : [5:5]

d24 : [6:7]

d16 : [6:7]

d25 : [8:11]

d26 : [12:12]

d27 : [13:14]

Registered resources

MEM 7 18.0

MEM 6 18.0

MEM 14 9.0

MEM 13 9.0

MUL 4 4.6

MUL 3 4.6

MUL 2 4.6

MUL 1 4.6

MUL 11 2.3

MUL 10 2.3

MUL 9 2.3

MUL 8 2.3

OTHER 1 2.0

ADD 5 2.0

ADD 12 1.0

ADD 1 1.0

CMP 0 2.1

cost = 28.700000000000003

ALAP

Found schedule of length 15

d7 : [0:0]

d21 : [1:4]

d13 : [1:4]

d10 : [5:5]

d23 : [5:5]

d15 : [5:5]

d18 : [5:5]

d24 : [6:7]

d16 : [6:7]

d25 : [8:11]

d26 : [12:12]

d27 : [13:14]

d30 : [14:14]

Registered resources

MEM 7 18.0

MEM 6 18.0

MEM 14 9.0

MEM 13 9.0

MUL 4 4.6

MUL 3 4.6

MUL 2 4.6

MUL 1 4.6

MUL 11 2.3

MUL 10 2.3

MUL 9 2.3

MUL 8 2.3

OTHER 5 2.0

ADD 5 2.0

ADD 14 1.0

ADD 12 1.0

CMP 0 2.1

cost = 28.700000000000003

# IDCT-getTransformedInt1DFast-31-65

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50236:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/IDCT-getTransformedInt1DFast-31-65.dot

Scheduling scheduler-framework-master/graphs/IDCT-getTransformedInt1DFast-31-65.dot

n0 (Mem):

successors

n6 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n2 0

n2 (Mem):

successors

n1 0

n3 (Mem):

successors

n6 0

predecessors

n4 0

n4 (Mem):

successors

n3 0

predecessors

n7 0

n5 (Add):

predecessors

n6 0

n6 (Mul):

successors

n5 0

predecessors

n0 0

n3 0

n7 (Mem):

successors

n4 0

n8 (Add):

n9 (Cmp):

Nr of Nodes : 10

ASAP

Found schedule of length 11

n2 : [0:1]

n7 : [0:1]

n8 : [0:0]

n9 : [0:0]

n1 : [2:3]

n4 : [2:3]

n0 : [4:5]

n3 : [4:5]

n6 : [6:9]

n5 : [10:10]

Registered resources

CMP 0 2.1

MUL 9 2.3

MUL 8 2.3

MUL 7 2.3

MUL 6 2.3

ADD 10 1.0

ADD 0 1.0

MEM 5 18.0

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 0 18.0

cost = 23.4

ALAP

Found schedule of length 11

n2 : [0:1]

n7 : [0:1]

n1 : [2:3]

n4 : [2:3]

n0 : [4:5]

n3 : [4:5]

n6 : [6:9]

n5 : [10:10]

n8 : [10:10]

n9 : [10:10]

Registered resources

CMP 10 2.1

MUL 9 2.3

MUL 8 2.3

MUL 7 2.3

MUL 6 2.3

ADD 10 2.0

MEM 5 18.0

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 0 18.0

cost = 24.4

# IDCT-getTransformedInt1DFast-134-169

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50248:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/IDCT-getTransformedInt1DFast-134-169.dot

Scheduling scheduler-framework-master/graphs/IDCT-getTransformedInt1DFast-134-169.dot

n0 (Add):

predecessors

n1 0

n1 (Mul):

successors

n0 0

predecessors

n4 0

n5 0

n2 (Mem):

successors

n4 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

n4 (Mem):

successors

n1 0

predecessors

n2 0

n5 (Mem):

successors

n1 0

predecessors

n6 0

n6 (Mem):

successors

n5 0

n7 (Add):

n8 (Add):

n9 (Cmp):

Nr of Nodes : 10

ASAP

Found schedule of length 11

n3 : [0:1]

n6 : [0:1]

n7 : [0:0]

n8 : [0:0]

n9 : [0:0]

n2 : [2:3]

n5 : [2:3]

n4 : [4:5]

n1 : [6:9]

n0 : [10:10]

Registered resources

CMP 0 2.1

MUL 9 2.3

MUL 8 2.3

MUL 7 2.3

MUL 6 2.3

ADD 0 2.0

ADD 10 1.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 0 18.0

MEM 5 9.0

MEM 4 9.0

cost = 24.4

ALAP

Found schedule of length 11

n3 : [0:1]

n2 : [2:3]

n6 : [2:3]

n4 : [4:5]

n5 : [4:5]

n1 : [6:9]

n0 : [10:10]

n7 : [10:10]

n8 : [10:10]

n9 : [10:10]

Registered resources

CMP 10 2.1

MUL 9 2.3

MUL 8 2.3

MUL 7 2.3

MUL 6 2.3

ADD 10 3.0

MEM 5 18.0

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 9.0

MEM 0 9.0

cost = 25.4

# MD5Digest-processBlock-1896-1911

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50296:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/MD5Digest-processBlock-1896-1911.dot

Scheduling scheduler-framework-master/graphs/MD5Digest-processBlock-1896-1911.dot

n0 (Add):

n1 (Mem):

n2 (Cmp):

Nr of Nodes : 3

ASAP

Found schedule of length 2

n0 : [0:0]

n1 : [0:1]

n2 : [0:0]

Registered resources

CMP 0 2.1

MEM 1 9.0

MEM 0 9.0

ADD 0 1.0

cost = 12.1

ALAP

Found schedule of length 2

n1 : [0:1]

n0 : [1:1]

n2 : [1:1]

Registered resources

CMP 1 2.1

MEM 1 9.0

MEM 0 9.0

ADD 1 1.0

cost = 12.1

# PETrigonometry-cordic-88-287

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50308:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/PETrigonometry-cordic-88-287.dot

Scheduling scheduler-framework-master/graphs/PETrigonometry-cordic-88-287.dot

n0 (Mem):

predecessors

n1 0

n1 (Sub):

successors

n0 0

predecessors

n16 0

n15 0

n2 (Mul):

successors

n38 0

predecessors

n3 0

n4 0

n3 (Mul):

successors

n2 0

predecessors

n17 0

n31 0

n4 (Other):

successors

n2 0

n32 0

n5 (Div):

predecessors

n6 0

n6 (Div):

successors

n35 0

n5 0

n7 (Sub):

successors

n15 0

predecessors

n8 0

n9 0

n8 (Mem):

successors

n7 0

n11 0

n30 (Sub):

successors

n14 0

predecessors

n32 0

n31 0

n9 (Mul):

successors

n7 0

predecessors

n18 0

n17 0

n10 (Cmp):

predecessors

n11 0

n32 (Mul):

successors

n30 0

predecessors

n28 0

n4 0

n31 (Mem):

successors

n3 0

n30 0

n12 (Mul):

successors

n27 0

predecessors

n14 0

n13 0

n34 (Mul):

successors

n33 0

predecessors

n13 0

n26 0

n11 (Cmp):

successors

n10 0

predecessors

n8 0

n33 (Mul):

successors

n20 0

predecessors

n35 0

n34 0

n14 (Mem):

successors

n20 0

n12 0

predecessors

n30 0

n36 (Mem):

successors

n16 0

predecessors

n37 0

n22 0

n13 (Other):

successors

n16 0

n12 0

n34 0

n35 (Other):

successors

n27 0

n33 0

predecessors

n6 0

n16 (Mul):

successors

n1 0

predecessors

n36 0

n13 0

n38 (Add):

successors

n26 0

predecessors

n29 0

n2 0

n15 (Mem):

successors

n24 0

n1 0

predecessors

n7 0

n37 (Mem):

successors

n36 0

n18 0

n18 (Mem):

successors

n9 0

predecessors

n37 0

n17 (Other):

successors

n28 0

n3 0

n9 0

n39 (Mem):

predecessors

n25 0

n19 (Mem):

predecessors

n20 0

n41 (Cmp):

n40 (Cmp):

predecessors

n22 0

n21 (Add):

predecessors

n22 0

n20 (Sub):

successors

n19 0

predecessors

n14 0

n33 0

n23 (Cmp):

predecessors

n24 0

n22 (Add):

successors

n36 0

n40 0

n21 0

n25 (Add):

successors

n39 0

predecessors

n27 0

n26 0

n24 (Cmp):

successors

n23 0

predecessors

n15 0

n27 (Mul):

successors

n25 0

predecessors

n35 0

n12 0

n26 (Mem):

successors

n25 0

n34 0

predecessors

n38 0

n29 (Mem):

successors

n38 0

n28 0

n28 (Mul):

successors

n32 0

predecessors

n29 0

n17 0

Nr of Nodes : 42

ASAP

Found schedule of length 36

n13 : [0:0]

n37 : [0:1]

n29 : [0:1]

n17 : [0:0]

n4 : [0:0]

n6 : [0:17]

n8 : [0:1]

n41 : [0:0]

n31 : [0:1]

n22 : [0:0]

n40 : [1:1]

n21 : [1:1]

n36 : [2:3]

n18 : [2:3]

n28 : [2:5]

n3 : [2:5]

n11 : [2:2]

n10 : [3:3]

n16 : [4:7]

n9 : [4:7]

n2 : [6:9]

n32 : [6:9]

n7 : [8:8]

n15 : [9:10]

n38 : [10:10]

n30 : [10:10]

n14 : [11:12]

n24 : [11:11]

n26 : [11:12]

n1 : [11:11]

n0 : [12:13]

n23 : [12:12]

n12 : [13:16]

n34 : [13:16]

n35 : [18:18]

n5 : [18:35]

n27 : [19:22]

n33 : [19:22]

n25 : [23:23]

n20 : [23:23]

n39 : [24:25]

n19 : [24:25]

Registered resources

MUL 7 9.2

MUL 6 9.2

MUL 5 9.2

MUL 4 9.2

MUL 22 4.6

MUL 21 4.6

MUL 20 4.6

MUL 19 4.6

MUL 16 4.6

MUL 15 4.6

MUL 14 4.6

MUL 13 4.6

MUL 9 4.6

MUL 8 4.6

MUL 3 4.6

MUL 2 4.6

ADD 23 1.0

ADD 10 1.0

ADD 1 1.0

ADD 0 1.0

DIV 35 4.3

DIV 34 4.3

DIV 33 4.3

DIV 32 4.3

DIV 31 4.3

DIV 30 4.3

DIV 29 4.3

DIV 28 4.3

DIV 27 4.3

DIV 26 4.3

DIV 25 4.3

DIV 24 4.3

DIV 23 4.3

DIV 22 4.3

DIV 21 4.3

DIV 20 4.3

DIV 19 4.3

DIV 18 4.3

DIV 17 4.3

DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

DIV 11 4.3

DIV 10 4.3

DIV 9 4.3

DIV 8 4.3

DIV 7 4.3

DIV 6 4.3

DIV 5 4.3

DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

DIV 1 4.3

DIV 0 4.3

CMP 12 2.1

CMP 11 2.1

CMP 3 2.1

CMP 2 2.1

CMP 1 2.1

CMP 0 2.1

MEM 1 36.0

MEM 0 36.0

MEM 12 27.0

MEM 25 18.0

MEM 24 18.0

MEM 11 18.0

MEM 3 18.0

MEM 2 18.0

MEM 13 9.0

MEM 10 9.0

MEM 9 9.0

SUB 23 1.4

SUB 11 1.4

SUB 10 1.4

SUB 8 1.4

OTHER 0 3.0

OTHER 18 1.0

cost = 57.0

ALAP

Found schedule of length 36

n6 : [0:17]

n29 : [12:13]

n31 : [12:13]

n17 : [13:13]

n3 : [14:17]

n28 : [14:17]

n4 : [17:17]

n2 : [18:21]

n5 : [18:35]

n32 : [18:21]

n38 : [22:22]

n37 : [22:23]

n30 : [22:22]

n14 : [23:24]

n26 : [23:24]

n13 : [24:24]

n18 : [24:25]

n12 : [25:28]

n34 : [25:28]

n9 : [26:29]

n22 : [26:26]

n36 : [27:28]

n35 : [28:28]

n8 : [28:29]

n27 : [29:32]

n16 : [29:32]

n33 : [29:32]

n7 : [30:30]

n15 : [31:32]

n25 : [33:33]

n1 : [33:33]

n20 : [33:33]

n24 : [34:34]

n0 : [34:35]

n39 : [34:35]

n19 : [34:35]

n11 : [34:34]

n41 : [35:35]

n40 : [35:35]

n10 : [35:35]

n21 : [35:35]

n23 : [35:35]

Registered resources

MUL 29 9.2

MUL 32 6.8999999999999995

MUL 31 6.8999999999999995

MUL 30 6.8999999999999995

MUL 28 6.8999999999999995

MUL 27 6.8999999999999995

MUL 26 6.8999999999999995

MUL 25 4.6

MUL 21 4.6

MUL 20 4.6

MUL 19 4.6

MUL 18 4.6

MUL 17 4.6

MUL 16 4.6

MUL 15 4.6

MUL 14 4.6

ADD 35 1.0

ADD 33 1.0

ADD 26 1.0

ADD 22 1.0

DIV 35 4.3

DIV 34 4.3

DIV 33 4.3

DIV 32 4.3

DIV 31 4.3

DIV 30 4.3

DIV 29 4.3

DIV 28 4.3

DIV 27 4.3

DIV 26 4.3

DIV 25 4.3

DIV 24 4.3

DIV 23 4.3

DIV 22 4.3

DIV 21 4.3

DIV 20 4.3

DIV 19 4.3

DIV 18 4.3

DIV 17 4.3

DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

DIV 11 4.3

DIV 10 4.3

DIV 9 4.3

DIV 8 4.3

DIV 7 4.3

DIV 6 4.3

DIV 5 4.3

DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

DIV 1 4.3

DIV 0 4.3

CMP 35 8.4

CMP 34 4.2

MEM 35 27.0

MEM 34 27.0

MEM 24 27.0

MEM 23 27.0

MEM 28 18.0

MEM 13 18.0

MEM 12 18.0

MEM 32 9.0

MEM 31 9.0

MEM 29 9.0

MEM 27 9.0

MEM 25 9.0

MEM 22 9.0

SUB 33 2.8

SUB 30 1.4

SUB 22 1.4

OTHER 28 1.0

OTHER 24 1.0

OTHER 17 1.0

OTHER 13 1.0

cost = 53.699999999999996

# RadioGatun32Digest-processBlock-170-1524

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50321:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/RadioGatun32Digest-processBlock-170-1524.dot

Scheduling scheduler-framework-master/graphs/RadioGatun32Digest-processBlock-170-1524.dot

n90 (Or):

successors

n263 0

n292 0

predecessors

n91 0

n92 (And):

successors

n38 0

predecessors

n93 0

n91 (Or):

successors

n90 0

predecessors

n171 0

n94 (Or):

successors

n186 0

predecessors

n18 0

n80 0

n93 (Mem):

successors

n92 0

predecessors

n7 0

n96 (Or):

successors

n95 0

n117 0

predecessors

n101 0

n95 (Shift):

successors

n108 0

predecessors

n96 0

n98 (Add):

successors

n97 0

predecessors

n74 0

n97 (Mem):

successors

n257 0

predecessors

n98 0

n99 (Or):

successors

n239 0

predecessors

n100 0

n43 0

n301 (Mem):

predecessors

n251 0

n28 0

n302 0

n302 (Or):

successors

n301 0

predecessors

n250 0

n300 (Add):

successors

n299 0

n305 (Add):

n306 (Add):

n303 (Mem):

predecessors

n286 0

n28 0

n258 0

n304 (Or):

predecessors

n140 0

n44 0

n307 (Cmp):

n308 (Cmp):

n210 (Or):

predecessors

n211 0

n107 0

n213 (Shift):

successors

n5 0

predecessors

n260 0

n214 (Shift):

successors

n20 0

predecessors

n261 0

n211 (Or):

successors

n210 0

predecessors

n100 0

n16 0

n212 (Shift):

successors

n5 0

predecessors

n260 0

n217 (Mem):

successors

n216 0

predecessors

n254 0

n28 0

n218 (Or):

successors

n215 0

predecessors

n219 0

n215 (Or):

successors

n167 0

n168 0

predecessors

n218 0

n216 (Or):

successors

n253 0

predecessors

n217 0

n219 (Or):

successors

n218 0

n202 (And):

successors

n158 0

predecessors

n73 0

n203 (Or):

successors

n160 0

predecessors

n282 0

n200 (Mem):

successors

n199 0

predecessors

n8 0

n201 (Shift):

successors

n13 0

predecessors

n130 0

n206 (And):

successors

n127 0

predecessors

n207 0

n207 (Mem):

successors

n206 0

predecessors

n187 0

n204 (Or):

predecessors

n6 0

n205 0

n205 (Or):

successors

n204 0

predecessors

n58 0

n44 0

n208 (Or):

predecessors

n41 0

n209 0

n209 (Mem):

successors

n208 0

predecessors

n28 0

n229 0

n110 (Add):

successors

n109 0

predecessors

n230 0

n231 (Or):

predecessors

n147 0

n134 0

n111 (Mem):

predecessors

n28 0

n112 0

n32 0

n232 (Shift):

successors

n158 0

predecessors

n33 0

n230 (Mul):

successors

n110 0

n197 0

n229 0

n114 (Or):

successors

n296 0

n113 0

n42 0

predecessors

n26 0

n9 0

n235 (Shift):

successors

n162 0

predecessors

n139 0

n115 (Cmp):

predecessors

n116 0

n236 (Or):

predecessors

n191 0

n237 0

n112 (Or):

successors

n111 0

predecessors

n31 0

n233 (Or):

predecessors

n185 0

n106 0

n113 (Or):

successors

n291 0

predecessors

n79 0

n114 0

n234 (Or):

successors

n36 0

predecessors

n249 0

n118 (Or):

successors

n1 0

predecessors

n188 0

n239 (Or):

predecessors

n141 0

n99 0

n119 (Mem):

predecessors

n120 0

n28 0

n55 0

n116 (Add):

successors

n115 0

n237 (Or):

successors

n236 0

predecessors

n13 0

n162 0

n117 (Shift):

successors

n108 0

predecessors

n96 0

n238 (Add):

successors

n170 0

predecessors

n8 0

n220 (Shift):

successors

n147 0

predecessors

n160 0

n100 (Or):

successors

n211 0

n222 0

n99 0

predecessors

n243 0

n76 0

n221 (Or):

predecessors

n222 0

n109 0

n103 (Or):

successors

n255 0

n102 0

n260 0

predecessors

n18 0

n224 (Add):

successors

n223 0

predecessors

n74 0

n104 (Or):

successors

n225 0

predecessors

n105 0

n225 (Or):

successors

n148 0

n149 0

predecessors

n104 0

n101 (Or):

successors

n96 0

predecessors

n181 0

n222 (Or):

successors

n221 0

predecessors

n100 0

n228 0

n102 (Or):

successors

n123 0

predecessors

n103 0

n223 (Mem):

successors

n278 0

predecessors

n224 0

n107 (Or):

successors

n210 0

n106 0

n140 0

predecessors

n167 0

n168 0

n228 (Or):

successors

n222 0

predecessors

n83 0

n191 0

n108 (Or):

successors

n143 0

n297 0

n106 0

predecessors

n95 0

n117 0

n229 (Add):

successors

n209 0

predecessors

n230 0

n105 (Or):

successors

n104 0

n226 (Cmp):

predecessors

n227 0

n106 (Or):

successors

n233 0

predecessors

n107 0

n108 0

n227 (Add):

successors

n226 0

n109 (Mem):

successors

n221 0

predecessors

n110 0

n28 0

n10 (Or):

successors

n26 0

n9 0

predecessors

n75 0

n260 (Or):

successors

n213 0

n212 0

predecessors

n103 0

n194 0

n140 (Or):

successors

n304 0

predecessors

n141 0

n107 0

n261 (And):

successors

n214 0

predecessors

n262 0

n12 (Or):

successors

n11 0

predecessors

n185 0

n5 0

n11 (Or):

predecessors

n13 0

n12 0

n14 (Shift):

successors

n185 0

predecessors

n15 0

n132 (Or):

successors

n46 0

n45 0

predecessors

n133 0

n253 (Mem):

predecessors

n254 0

n28 0

n216 0

n13 (Or):

successors

n252 0

n237 0

n11 0

predecessors

n201 0

n129 0

n133 (Or):

successors

n132 0

predecessors

n283 0

n254 (Add):

successors

n253 0

n217 0

n16 (Or):

successors

n145 0

n211 0

n182 0

predecessors

n17 0

n130 (Or):

successors

n201 0

n129 0

predecessors

n266 0

n251 (Add):

successors

n301 0

n250 0

n15 (Or):

successors

n14 0

n70 0

predecessors

n39 0

n131 (Add):

successors

n63 0

predecessors

n3 0

n252 (Or):

successors

n288 0

predecessors

n13 0

n79 0

n18 (Or):

successors

n103 0

n94 0

predecessors

n19 0

n20 0

n136 (Cmp):

predecessors

n137 0

n257 (And):

successors

n284 0

predecessors

n97 0

n17 (Or):

successors

n16 0

predecessors

n176 0

n137 (Add):

successors

n136 0

n258 (Or):

successors

n303 0

predecessors

n259 0

n134 (Or):

successors

n231 0

predecessors

n84 0

n43 0

n255 (Or):

successors

n164 0

predecessors

n103 0

n256 0

n19 (Or):

successors

n18 0

predecessors

n38 0

n37 0

n135 (Mem):

successors

n69 0

predecessors

n68 0

n28 0

n256 (Or):

successors

n255 0

n138 (Shift):

successors

n162 0

predecessors

n139 0

n259 (Mem):

successors

n258 0

predecessors

n286 0

n28 0

n139 (Or):

successors

n235 0

n138 0

predecessors

n174 0

n21 (Shift):

successors

n79 0

predecessors

n22 0

n20 (Or):

successors

n18 0

predecessors

n199 0

n214 0

n250 (Mem):

successors

n302 0

predecessors

n251 0

n28 0

n23 (Or):

successors

n156 0

predecessors

n25 0

n24 0

n22 (Or):

successors

n198 0

n21 0

predecessors

n154 0

n25 (Or):

successors

n53 0

n23 0

predecessors

n49 0

n126 0

n121 (Or):

successors

n59 0

n60 0

predecessors

n122 0

n123 0

n242 (Cmp):

predecessors

n71 0

n24 (Mem):

successors

n23 0

predecessors

n152 0

n28 0

n122 (Or):

successors

n121 0

n249 0

n75 0

predecessors

n66 0

n243 (Shift):

successors

n100 0

predecessors

n77 0

n27 (Mem):

predecessors

n29 0

n28 0

n30 0

n240 (Mem):

predecessors

n241 0

n28 0

n172 0

n26 (Shift):

successors

n114 0

predecessors

n10 0

n120 (Or):

successors

n119 0

predecessors

n54 0

n241 (Add):

successors

n240 0

n173 0

n29 (Add):

successors

n27 0

n293 0

n125 (Or):

successors

n124 0

n192 0

predecessors

n275 0

n246 (Add):

successors

n245 0

n88 0

n28 (Mem):

successors

n54 0

n31 0

n281 0

n253 0

n111 0

n196 0

n274 0

n156 0

n135 0

n217 0

n119 0

n259 0

n80 0

n85 0

n65 0

n293 0

n250 0

n173 0

n67 0

n88 0

n264 0

n24 0

n27 0

n240 0

n186 0

n285 0

n301 0

n189 0

n245 0

n248 0

n303 0

n109 0

n209 0

n126 (Or):

successors

n25 0

predecessors

n127 0

n128 0

n247 (Or):

successors

n274 0

predecessors

n248 0

n123 (Or):

successors

n121 0

predecessors

n102 0

n53 0

n244 (Or):

predecessors

n196 0

n145 0

n124 (Shift):

successors

n191 0

predecessors

n125 0

n245 (Mem):

predecessors

n246 0

n28 0

n87 0

n129 (Shift):

successors

n13 0

predecessors

n130 0

n127 (Shift):

successors

n126 0

predecessors

n206 0

n248 (Mem):

successors

n247 0

predecessors

n28 0

n272 0

n128 (Shift):

successors

n126 0

predecessors

n62 0

n249 (Or):

successors

n234 0

predecessors

n122 0

n30 (Or):

successors

n27 0

predecessors

n293 0

n32 (Add):

successors

n111 0

n31 0

n161 (Or):

successors

n296 0

predecessors

n6 0

n162 0

n282 (Or):

successors

n203 0

n31 (Mem):

successors

n112 0

predecessors

n28 0

n32 0

n162 (Or):

successors

n237 0

n161 0

n183 0

predecessors

n235 0

n138 0

n283 (Or):

successors

n133 0

n34 (Mem):

successors

n33 0

predecessors

n153 0

n280 (Add):

successors

n65 0

n281 0

n33 (And):

successors

n232 0

predecessors

n34 0

n160 (Or):

successors

n220 0

n159 0

predecessors

n203 0

n281 (Mem):

predecessors

n28 0

n64 0

n280 0

n36 (Or):

successors

n35 0

n178 0

predecessors

n234 0

n154 (Or):

successors

n22 0

predecessors

n155 0

n275 (Or):

successors

n125 0

predecessors

n276 0

n35 (Shift):

successors

n141 0

predecessors

n36 0

n155 (Or):

successors

n154 0

n276 (Or):

successors

n275 0

n38 (Shift):

successors

n19 0

predecessors

n92 0

n152 (Add):

successors

n24 0

n156 0

n273 (Or):

predecessors

n58 0

n146 0

n37 (Shift):

successors

n19 0

predecessors

n169 0

n153 (Add):

successors

n34 0

predecessors

n74 0

n274 (Mem):

predecessors

n28 0

n247 0

n272 0

n158 (Or):

successors

n66 0

predecessors

n232 0

n202 0

n279 (Or):

successors

n285 0

predecessors

n264 0

n39 (Or):

successors

n15 0

predecessors

n40 0

n159 (Shift):

successors

n147 0

predecessors

n160 0

n156 (Mem):

predecessors

n152 0

n28 0

n23 0

n277 (Shift):

successors

n157 0

predecessors

n278 0

n157 (Or):

successors

n66 0

predecessors

n284 0

n277 0

n278 (And):

successors

n277 0

predecessors

n223 0

n41 (Or):

successors

n208 0

predecessors

n43 0

n42 0

n40 (Or):

successors

n39 0

n43 (Or):

successors

n134 0

n41 0

n99 0

predecessors

n148 0

n149 0

n150 (Cmp):

predecessors

n151 0

n271 (Add):

successors

n270 0

n42 (Or):

successors

n41 0

predecessors

n114 0

n191 0

n151 (Add):

successors

n150 0

n272 (Add):

successors

n274 0

n248 0

n45 (Shift):

successors

n44 0

predecessors

n132 0

n44 (Or):

successors

n205 0

n304 0

n184 0

predecessors

n46 0

n45 0

n270 (Cmp):

predecessors

n271 0

n47 (And):

successors

n50 0

predecessors

n48 0

n143 (Or):

successors

n142 0

predecessors

n58 0

n108 0

n264 (Mem):

successors

n279 0

predecessors

n265 0

n28 0

n46 (Shift):

successors

n44 0

predecessors

n132 0

n144 (Or):

successors

n77 0

predecessors

n287 0

n265 (Add):

successors

n264 0

n285 0

n49 (Or):

successors

n25 0

predecessors

n50 0

n51 0

n141 (Or):

successors

n146 0

n239 0

n140 0

predecessors

n35 0

n178 0

n262 (Mem):

successors

n261 0

predecessors

n61 0

n48 (Mem):

successors

n47 0

predecessors

n177 0

n142 (Or):

predecessors

n143 0

n5 0

n263 (Shift):

successors

n6 0

predecessors

n90 0

n147 (Or):

successors

n231 0

n146 0

n182 0

predecessors

n220 0

n159 0

n268 (Cmp):

predecessors

n269 0

n148 (Shift):

successors

n43 0

predecessors

n225 0

n269 (Add):

successors

n268 0

n145 (Or):

successors

n244 0

predecessors

n16 0

n82 0

n266 (Or):

successors

n130 0

predecessors

n267 0

n146 (Or):

successors

n273 0

predecessors

n141 0

n147 0

n267 (Or):

successors

n266 0

n149 (Shift):

successors

n43 0

predecessors

n225 0

n0 (Shift):

successors

n83 0

predecessors

n1 0

n1 (Or):

successors

n0 0

n89 0

predecessors

n118 0

n2 (Mem):

successors

n51 0

predecessors

n3 0

n3 (Add):

successors

n187 0

n177 0

n131 0

n2 0

n4 (Or):

successors

n78 0

predecessors

n5 0

n6 0

n5 (Or):

successors

n142 0

n4 0

n12 0

predecessors

n213 0

n212 0

n6 (Or):

successors

n4 0

n204 0

n161 0

predecessors

n263 0

n292 0

n50 (Shift):

successors

n49 0

predecessors

n47 0

n7 (Add):

successors

n93 0

predecessors

n8 0

n180 (Add):

successors

n179 0

n8 (Add):

successors

n200 0

n61 0

n7 0

n238 0

n52 (Or):

successors

n75 0

predecessors

n53 0

n9 (Shift):

successors

n114 0

predecessors

n10 0

n51 (And):

successors

n49 0

predecessors

n2 0

n54 (Mem):

successors

n120 0

predecessors

n28 0

n55 0

n183 (Or):

predecessors

n184 0

n162 0

n53 (Or):

successors

n164 0

n123 0

n52 0

predecessors

n25 0

n184 (Or):

successors

n183 0

predecessors

n185 0

n44 0

n56 (Cmp):

predecessors

n57 0

n181 (Or):

successors

n101 0

n55 (Add):

successors

n119 0

n54 0

n182 (Or):

successors

n297 0

predecessors

n16 0

n147 0

n58 (Or):

successors

n143 0

n273 0

n205 0

predecessors

n59 0

n60 0

n176 (Or):

successors

n17 0

n297 (Or):

successors

n298 0

predecessors

n108 0

n182 0

n57 (Add):

successors

n56 0

n177 (Add):

successors

n48 0

predecessors

n3 0

n298 (Or):

predecessors

n297 0

n174 (Or):

successors

n139 0

predecessors

n175 0

n295 (Add):

successors

n294 0

n59 (Shift):

successors

n58 0

predecessors

n121 0

n175 (Or):

successors

n174 0

n296 (Or):

predecessors

n114 0

n161 0

n178 (Shift):

successors

n141 0

predecessors

n36 0

n299 (Mul):

predecessors

n300 0

n179 (Cmp):

predecessors

n180 0

n61 (Add):

successors

n262 0

predecessors

n8 0

n60 (Shift):

successors

n58 0

predecessors

n121 0

n290 (Add):

successors

n289 0

n63 (Mem):

successors

n62 0

predecessors

n131 0

n62 (And):

successors

n128 0

predecessors

n63 0

n65 (Mem):

successors

n64 0

predecessors

n28 0

n280 0

n172 (Or):

successors

n240 0

predecessors

n173 0

n293 (Mem):

successors

n30 0

predecessors

n29 0

n28 0

n64 (Or):

successors

n281 0

predecessors

n65 0

n66 0

n173 (Mem):

successors

n172 0

predecessors

n241 0

n28 0

n294 (Cmp):

predecessors

n295 0

n67 (Mem):

predecessors

n69 0

n68 0

n28 0

n170 (Mem):

successors

n169 0

predecessors

n238 0

n291 (Or):

predecessors

n113 0

n84 0

n66 (Or):

successors

n122 0

n64 0

predecessors

n158 0

n157 0

n171 (Or):

successors

n91 0

n292 (Shift):

successors

n6 0

predecessors

n90 0

n69 (Or):

successors

n67 0

predecessors

n135 0

n165 (Cmp):

predecessors

n166 0

n286 (Add):

successors

n259 0

n303 0

n68 (Add):

successors

n135 0

n67 0

n166 (Add):

successors

n165 0

n287 (Or):

successors

n144 0

n163 (Shift):

successors

n84 0

predecessors

n164 0

n284 (Shift):

successors

n157 0

predecessors

n257 0

n164 (Or):

successors

n163 0

n193 0

predecessors

n255 0

n53 0

n285 (Mem):

predecessors

n265 0

n279 0

n28 0

n169 (And):

successors

n37 0

predecessors

n170 0

n167 (Shift):

successors

n107 0

predecessors

n215 0

n288 (Or):

predecessors

n252 0

n83 0

n168 (Shift):

successors

n107 0

predecessors

n215 0

n289 (Cmp):

predecessors

n290 0

n70 (Shift):

successors

n185 0

predecessors

n15 0

n72 (Mul):

successors

n71 0

n71 (Add):

successors

n242 0

predecessors

n72 0

n74 (Add):

successors

n153 0

n224 0

n73 0

n98 0

n73 (Mem):

successors

n202 0

predecessors

n74 0

n76 (Shift):

successors

n100 0

predecessors

n77 0

n75 (Or):

successors

n10 0

predecessors

n122 0

n52 0

n78 (Or):

predecessors

n79 0

n4 0

n77 (Or):

successors

n243 0

n76 0

predecessors

n144 0

n198 (Shift):

successors

n79 0

predecessors

n22 0

n79 (Or):

successors

n252 0

n113 0

n78 0

predecessors

n198 0

n21 0

n199 (And):

successors

n20 0

predecessors

n200 0

n196 (Mem):

successors

n244 0

predecessors

n197 0

n28 0

n197 (Add):

successors

n196 0

predecessors

n230 0

n81 (Add):

successors

n186 0

n80 0

n80 (Mem):

successors

n94 0

predecessors

n28 0

n81 0

n83 (Or):

successors

n288 0

n228 0

n82 0

predecessors

n0 0

n89 0

n190 (Or):

successors

n189 0

predecessors

n85 0

n82 (Or):

successors

n145 0

predecessors

n83 0

n84 0

n191 (Or):

successors

n236 0

n228 0

n42 0

predecessors

n124 0

n192 0

n85 (Mem):

successors

n190 0

predecessors

n28 0

n86 0

n84 (Or):

successors

n134 0

n82 0

n291 0

predecessors

n163 0

n193 0

n87 (Or):

successors

n245 0

predecessors

n88 0

n194 (Or):

successors

n260 0

predecessors

n195 0

n86 (Add):

successors

n189 0

n85 0

n195 (Or):

successors

n194 0

n89 (Shift):

successors

n83 0

predecessors

n1 0

n192 (Shift):

successors

n191 0

predecessors

n125 0

n88 (Mem):

successors

n87 0

predecessors

n246 0

n28 0

n193 (Shift):

successors

n84 0

predecessors

n164 0

n187 (Add):

successors

n207 0

predecessors

n3 0

n188 (Or):

successors

n118 0

n185 (Or):

successors

n233 0

n184 0

n12 0

predecessors

n14 0

n70 0

n186 (Mem):

predecessors

n28 0

n81 0

n94 0

n189 (Mem):

predecessors

n28 0

n190 0

n86 0

Nr of Nodes : 309

ASAP

Found schedule of length 17

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n57 : [0:0]

n251 : [0:0]

n295 : [0:0]

n175 : [0:0]

n137 : [0:0]

n256 : [0:0]

n219 : [0:0]

n290 : [0:0]

n171 : [0:0]

n286 : [0:0]

n68 : [0:0]

n166 : [0:0]

n287 : [0:0]

n241 : [0:0]

n29 : [0:0]

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n28 : [0:1]

n72 : [0:3]

n74 : [0:0]

n32 : [0:0]

n282 : [0:0]

n283 : [0:0]

n280 : [0:0]

n155 : [0:0]

n276 : [0:0]

n152 : [0:0]

n230 : [0:3]

n116 : [0:0]

n81 : [0:0]

n40 : [0:0]

n271 : [0:0]

n151 : [0:0]

n272 : [0:0]

n86 : [0:0]

n195 : [0:0]

n265 : [0:0]

n188 : [0:0]

n269 : [0:0]

n300 : [0:0]

n267 : [0:0]

n305 : [0:0]

n306 : [0:0]

n105 : [0:0]

n227 : [0:0]

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n308 : [0:0]

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n275 : [1:1]

n177 : [1:1]

n133 : [1:1]

n174 : [1:1]

n131 : [1:1]

n153 : [1:1]

n136 : [1:1]

n17 : [1:1]

n115 : [1:1]

n39 : [1:1]

n299 : [1:4]

n179 : [1:1]

n118 : [1:1]

n218 : [1:1]

n238 : [1:1]

n61 : [1:1]

n150 : [1:1]

n194 : [1:1]

n294 : [1:1]

n270 : [1:1]

n165 : [1:1]

n187 : [1:1]

n144 : [1:1]

n224 : [1:1]

n268 : [1:1]

n203 : [1:1]

n104 : [1:1]

n200 : [1:2]

n101 : [1:1]

n266 : [1:1]

n289 : [1:1]

n226 : [1:1]

n1 : [2:2]

n90 : [2:2]

n93 : [2:3]

n96 : [2:2]

n54 : [2:3]

n31 : [2:3]

n97 : [2:3]

n34 : [2:3]

n160 : [2:2]

n77 : [2:2]

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n135 : [2:3]

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n259 : [2:3]

n215 : [2:2]

n139 : [2:2]

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n63 : [2:3]

n293 : [2:3]

n65 : [2:3]

n250 : [2:3]

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n170 : [2:3]

n88 : [2:3]

n22 : [2:2]

n264 : [2:3]

n24 : [2:3]

n262 : [2:3]

n48 : [2:3]

n125 : [2:2]

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n0 : [3:3]

n51 : [3:3]

n95 : [3:3]

n14 : [3:3]

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n243 : [3:3]

n202 : [3:3]

n167 : [3:3]

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n70 : [3:3]

n76 : [3:3]

n198 : [3:3]

n199 : [3:3]

n235 : [3:3]

n159 : [3:3]

n117 : [3:3]

n89 : [3:3]

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n220 : [3:3]

n46 : [3:3]

n263 : [3:3]

n148 : [3:3]

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n92 : [4:4]

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n71 : [4:4]

n30 : [4:4]

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n162 : [4:4]

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n110 : [4:4]

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n13 : [4:4]

n197 : [4:4]

n279 : [4:4]

n257 : [4:4]

n258 : [4:4]

n112 : [4:4]

n278 : [4:4]

n216 : [4:4]

n190 : [4:4]

n83 : [4:4]

n191 : [4:4]

n62 : [4:4]

n172 : [4:4]

n87 : [4:4]

n43 : [4:4]

n44 : [4:4]

n69 : [4:4]

n47 : [4:4]

n100 : [4:4]

n185 : [4:4]

n120 : [4:4]

n169 : [4:4]

n147 : [4:4]

n302 : [4:4]

n247 : [4:4]

n206 : [4:4]

n107 : [4:4]

n229 : [4:4]

n108 : [4:4]

n50 : [5:5]

n161 : [5:5]

n184 : [5:5]

n99 : [5:5]

n182 : [5:5]

n253 : [5:6]

n111 : [5:6]

n232 : [5:5]

n196 : [5:6]

n38 : [5:5]

n274 : [5:6]

n37 : [5:5]

n252 : [5:5]

n214 : [5:5]

n277 : [5:5]

n211 : [5:5]

n119 : [5:6]

n237 : [5:5]

n67 : [5:6]

n242 : [5:5]

n27 : [5:6]

n240 : [5:6]

n284 : [5:5]

n285 : [5:6]

n301 : [5:6]

n189 : [5:6]

n245 : [5:6]

n228 : [5:5]

n303 : [5:6]

n127 : [5:5]

n128 : [5:5]

n106 : [5:5]

n109 : [5:6]

n209 : [5:6]

n183 : [6:6]

n297 : [6:6]

n210 : [6:6]

n158 : [6:6]

n236 : [6:6]

n233 : [6:6]

n19 : [6:6]

n157 : [6:6]

n20 : [6:6]

n49 : [6:6]

n126 : [6:6]

n288 : [6:6]

n222 : [6:6]

n25 : [7:7]

n298 : [7:7]

n221 : [7:7]

n18 : [7:7]

n66 : [7:7]

n122 : [8:8]

n103 : [8:8]

n94 : [8:8]

n53 : [8:8]

n64 : [8:8]

n23 : [8:8]

n186 : [9:10]

n255 : [9:9]

n156 : [9:10]

n102 : [9:9]

n52 : [9:9]

n249 : [9:9]

n260 : [9:9]

n281 : [9:10]

n164 : [10:10]

n213 : [10:10]

n123 : [10:10]

n234 : [10:10]

n212 : [10:10]

n75 : [10:10]

n121 : [11:11]

n36 : [11:11]

n163 : [11:11]

n5 : [11:11]

n10 : [11:11]

n193 : [11:11]

n35 : [12:12]

n59 : [12:12]

n26 : [12:12]

n178 : [12:12]

n4 : [12:12]

n60 : [12:12]

n9 : [12:12]

n84 : [12:12]

n12 : [12:12]

n58 : [13:13]

n141 : [13:13]

n114 : [13:13]

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n82 : [13:13]

n78 : [13:13]

n11 : [13:13]

n143 : [14:14]

n231 : [14:14]

n296 : [14:14]

n145 : [14:14]

n146 : [14:14]

n113 : [14:14]

n239 : [14:14]

n205 : [14:14]

n140 : [14:14]

n42 : [14:14]

n273 : [15:15]

n142 : [15:15]

n244 : [15:15]

n204 : [15:15]

n41 : [15:15]

n304 : [15:15]

n291 : [15:15]

n208 : [16:16]

Registered resources

AND 4 18.0

AND 3 6.0

CMP 1 23.1

CMP 0 4.2

CMP 5 2.1

MEM 2 243.0

MEM 3 216.0

MEM 6 135.0

MEM 5 135.0

MEM 1 36.0

MEM 10 27.0

MEM 9 27.0

MEM 0 9.0

MUL 3 6.8999999999999995

MUL 2 6.8999999999999995

MUL 1 6.8999999999999995

MUL 0 4.6

MUL 4 2.3

OR 4 50.0

OR 0 32.0

OR 1 30.0

OR 2 28.0

OR 6 26.0

OR 14 20.0

OR 5 18.0

OR 15 14.0

OR 13 14.0

OR 8 12.0

OR 9 10.0

OR 7 10.0

OR 11 8.0

OR 10 8.0

OR 12 6.0

OR 16 2.0

SH 3 52.0

SH 5 18.0

SH 12 12.0

SH 11 4.0

SH 10 4.0

ADD 0 32.0

ADD 1 9.0

ADD 4 4.0

cost = 425.0

ALAP

Found schedule of length 17

n3 : [0:0]

n187 : [1:1]

n177 : [1:1]

n131 : [1:1]

n8 : [1:1]

n74 : [1:1]

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n153 : [2:2]

n224 : [2:2]

n61 : [2:2]

n207 : [2:3]

n7 : [2:2]

n63 : [2:3]

n238 : [2:2]

n98 : [2:2]

n262 : [3:4]

n2 : [3:4]

n223 : [3:4]

n93 : [3:4]

n97 : [3:4]

n170 : [3:4]

n34 : [3:4]

n47 : [4:4]

n200 : [4:5]

n206 : [4:4]

n73 : [4:5]

n62 : [4:4]

n257 : [5:5]

n169 : [5:5]

n92 : [5:5]

n278 : [5:5]

n50 : [5:5]

n127 : [5:5]

n51 : [5:5]

n128 : [5:5]

n261 : [5:5]

n33 : [5:5]

n232 : [6:6]

n199 : [6:6]

n49 : [6:6]

n38 : [6:6]

n284 : [6:6]

n37 : [6:6]

n202 : [6:6]

n126 : [6:6]

n214 : [6:6]

n277 : [6:6]

n25 : [7:7]

n158 : [7:7]

n19 : [7:7]

n157 : [7:7]

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n230 : [9:12]

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n52 : [9:9]

n282 : [9:9]

n40 : [10:10]

n195 : [10:10]

n75 : [10:10]

n283 : [10:10]

n181 : [10:10]

n171 : [10:10]

n275 : [10:10]

n155 : [10:10]

n287 : [10:10]

n175 : [10:10]

n28 : [10:11]

n203 : [10:10]

n255 : [10:10]

n102 : [10:10]

n267 : [10:10]

n118 : [10:10]

n105 : [10:10]

n249 : [10:10]

n219 : [10:10]

n1 : [11:11]

n91 : [11:11]

n72 : [11:14]

n32 : [11:11]

n10 : [11:11]

n280 : [11:11]

n55 : [11:11]

n160 : [11:11]

n154 : [11:11]

n176 : [11:11]

n254 : [11:11]

n133 : [11:11]

n251 : [11:11]

n152 : [11:11]

n174 : [11:11]

n39 : [11:11]

n234 : [11:11]

n218 : [11:11]

n81 : [11:11]

n194 : [11:11]

n86 : [11:11]

n272 : [11:11]

n286 : [11:11]

n68 : [11:11]

n265 : [11:11]

n144 : [11:11]

n241 : [11:11]

n164 : [11:11]

n29 : [11:11]

n246 : [11:11]

n125 : [11:11]

n104 : [11:11]

n101 : [11:11]

n123 : [11:11]

n266 : [11:11]

n0 : [12:12]

n90 : [12:12]

n96 : [12:12]

n9 : [12:12]

n54 : [12:13]

n260 : [12:12]

n31 : [12:13]

n77 : [12:12]

n36 : [12:12]

n132 : [12:12]

n130 : [12:12]

n15 : [12:12]

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n159 : [12:12]

n135 : [12:13]

n217 : [12:13]

n259 : [12:13]

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n139 : [12:12]

n80 : [12:13]

n85 : [12:13]

n65 : [12:13]

n293 : [12:13]

n173 : [12:13]

n250 : [12:13]

n89 : [12:12]

n192 : [12:12]

n88 : [12:13]

n22 : [12:12]

n193 : [12:12]

n264 : [12:13]

n121 : [12:12]

n220 : [12:12]

n24 : [12:13]

n163 : [12:12]

n26 : [12:12]

n225 : [12:12]

n300 : [12:12]

n124 : [12:12]

n248 : [12:13]

n95 : [13:13]

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n16 : [13:13]

n59 : [13:13]

n213 : [13:13]

n299 : [13:16]

n178 : [13:13]

n212 : [13:13]

n138 : [13:13]

n60 : [13:13]

n21 : [13:13]

n292 : [13:13]

n243 : [13:13]

n167 : [13:13]

n201 : [13:13]

n168 : [13:13]

n129 : [13:13]

n70 : [13:13]

n76 : [13:13]

n110 : [13:13]

n198 : [13:13]

n35 : [13:13]

n197 : [13:13]

n235 : [13:13]

n114 : [13:13]

n117 : [13:13]

n83 : [13:13]

n191 : [13:13]

n84 : [13:13]

n45 : [13:13]

n46 : [13:13]

n263 : [13:13]

n147 : [13:13]

n148 : [13:13]

n229 : [13:13]

n149 : [13:13]

n5 : [14:14]

n94 : [14:14]

n6 : [14:14]

n30 : [14:14]

n162 : [14:14]

n182 : [14:14]

n58 : [14:14]

n79 : [14:14]

n13 : [14:14]

n196 : [14:15]

n279 : [14:14]

n258 : [14:14]

n112 : [14:14]

n216 : [14:14]

n190 : [14:14]

n82 : [14:14]

n172 : [14:14]

n87 : [14:14]

n43 : [14:14]

n64 : [14:14]

n42 : [14:14]

n23 : [14:14]

n44 : [14:14]

n69 : [14:14]

n100 : [14:14]

n185 : [14:14]

n141 : [14:14]

n120 : [14:14]

n247 : [14:14]

n302 : [14:14]

n228 : [14:14]

n107 : [14:14]

n108 : [14:14]

n109 : [14:15]

n209 : [14:15]

n4 : [15:15]

n180 : [15:15]

n184 : [15:15]

n140 : [15:15]

n12 : [15:15]

n99 : [15:15]

n253 : [15:16]

n297 : [15:15]

n57 : [15:15]

n295 : [15:15]

n252 : [15:15]

n137 : [15:15]

n211 : [15:15]

n134 : [15:15]

n290 : [15:15]

n67 : [15:16]

n166 : [15:15]

n27 : [15:16]

n240 : [15:16]

n285 : [15:16]

n245 : [15:16]

n205 : [15:15]

n71 : [15:15]

n161 : [15:15]

n281 : [15:16]

n111 : [15:16]

n274 : [15:16]

n156 : [15:16]

n113 : [15:15]

n119 : [15:16]

n116 : [15:15]

n237 : [15:15]

n41 : [15:15]

n271 : [15:15]

n151 : [15:15]

n143 : [15:15]

n186 : [15:16]

n301 : [15:16]

n269 : [15:15]

n189 : [15:16]

n145 : [15:15]

n222 : [15:15]

n146 : [15:15]

n303 : [15:16]

n106 : [15:15]

n227 : [15:15]

n183 : [16:16]

n56 : [16:16]

n11 : [16:16]

n210 : [16:16]

n298 : [16:16]

n296 : [16:16]

n136 : [16:16]

n179 : [16:16]

n294 : [16:16]

n291 : [16:16]

n242 : [16:16]

n165 : [16:16]

n244 : [16:16]

n288 : [16:16]

n289 : [16:16]

n204 : [16:16]

n208 : [16:16]

n78 : [16:16]

n231 : [16:16]

n273 : [16:16]

n115 : [16:16]

n236 : [16:16]

n233 : [16:16]

n239 : [16:16]

n150 : [16:16]

n270 : [16:16]

n221 : [16:16]

n142 : [16:16]

n268 : [16:16]

n305 : [16:16]

n306 : [16:16]

n226 : [16:16]

n304 : [16:16]

n307 : [16:16]

n308 : [16:16]

Registered resources

AND 5 14.0

AND 4 6.0

AND 6 4.0

CMP 16 29.400000000000002

MEM 15 162.0

MEM 16 135.0

MEM 13 135.0

MEM 12 135.0

MEM 3 90.0

MEM 4 81.0

MEM 14 27.0

MEM 2 27.0

MEM 5 18.0

MEM 11 9.0

MEM 10 9.0

MUL 14 4.6

MUL 13 4.6

MUL 12 4.6

MUL 11 4.6

MUL 16 2.3

MUL 15 2.3

MUL 10 2.3

MUL 9 2.3

OR 14 64.0

OR 16 38.0

OR 15 38.0

OR 11 38.0

OR 10 36.0

OR 12 28.0

OR 9 14.0

OR 13 12.0

OR 7 10.0

OR 8 6.0

OR 6 4.0

SH 13 52.0

SH 12 20.0

SH 6 12.0

SH 5 6.0

ADD 11 15.0

ADD 15 12.0

ADD 2 6.0

ADD 1 5.0

ADD 13 3.0

ADD 16 2.0

ADD 12 1.0

ADD 0 1.0

cost = 341.0

# serpent

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50331:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/serpent.dot

Scheduling scheduler-framework-master/graphs/serpent.dot

Nr of Nodes : 0

No root in Graph found. Empty or cyclic graph

ASAP

%n

cost = 0.0

No leaf in Graph found. Empty or cyclic graph

ALAP

%n

cost = 0.0

# SerpentEngine-encryptBlock-51-2815

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=50349:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-encryptBlock-51-2815.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-encryptBlock-51-2815.dot

n90 (Or):

successors

n104 0

n245 0

n88 0

predecessors

n222 0

n234 0

n92 (And):

successors

n91 0

predecessors

n163 0

n322 0

n91 (Or):

successors

n64 0

predecessors

n92 0

n93 0

n94 (Or):

successors

n427 0

predecessors

n96 0

n95 0

n93 (And):

successors

n91 0

predecessors

n353 0

n376 0

n96 (Or):

successors

n231 0

n94 0

n518 0

predecessors

n158 0

n401 0

n95 (Mem):

successors

n94 0

predecessors

n273 0

n98 (Mem):

successors

n352 0

n97 0

predecessors

n197 0

n97 (Shift):

successors

n147 0

predecessors

n98 0

n99 0

n99 (Sub):

successors

n97 0

n0 (Or):

successors

n133 0

predecessors

n1 0

n2 0

n1 (Shift):

successors

n0 0

predecessors

n494 0

n2 (Shift):

successors

n0 0

predecessors

n494 0

n501 0

n3 (Or):

successors

n44 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n375 0

n3 0

predecessors

n134 0

n135 0

n5 (And):

successors

n3 0

predecessors

n115 0

n214 0

n6 (Mem):

successors

n319 0

predecessors

n7 0

n7 (Or):

successors

n6 0

predecessors

n207 0

n208 0

n8 (Mem):

successors

n84 0

predecessors

n9 0

n10 0

n9 (Mem):

successors

n8 0

n481 0

n181 0

n110 0

n296 0

n255 0

n476 0

n118 0

n435 0

n535 0

n539 0

n61 0

n172 0

n69 0

n441 0

n320 0

n141 0

n164 0

n120 0

n362 0

n202 0

n488 0

n225 0

n247 0

n126 0

n189 0

n167 0

n223 0

n267 0

n547 0

n106 0

n403 0

n510 (And):

successors

n213 0

predecessors

n447 0

n193 0

n511 (Or):

successors

n197 0

predecessors

n446 0

n514 (Or):

successors

n433 0

n534 0

n513 0

predecessors

n484 0

n28 0

n515 (Or):

successors

n423 0

predecessors

n457 0

n329 0

n512 (Add):

successors

n320 0

n513 (Or):

successors

n399 0

predecessors

n514 0

n405 0

n518 (Shift):

successors

n149 0

predecessors

n96 0

n519 (Add):

successors

n267 0

n516 (Shift):

successors

n220 0

predecessors

n315 0

n517 (Or):

successors

n408 0

predecessors

n199 0

n282 0

n509 (Mem):

predecessors

n492 0

n500 (Or):

successors

n413 0

n414 0

predecessors

n552 0

n458 0

n503 (Or):

successors

n502 0

predecessors

n381 0

n308 0

n504 (Add):

successors

n441 0

n501 (Sub):

successors

n2 0

n502 (And):

successors

n525 0

predecessors

n364 0

n503 0

n507 (Or):

successors

n268 0

predecessors

n508 0

n429 0

n508 (Shift):

successors

n507 0

predecessors

n128 0

n505 (Shift):

successors

n460 0

predecessors

n411 0

n506 0

n506 (Sub):

successors

n505 0

n411 (Mem):

successors

n464 0

n505 0

predecessors

n383 0

n532 (Mem):

successors

n244 0

predecessors

n299 0

n412 (Or):

successors

n190 0

predecessors

n413 0

n414 0

n533 (Or):

successors

n109 0

predecessors

n286 0

n472 0

n530 (Or):

successors

n279 0

predecessors

n16 0

n246 0

n410 (Mem):

successors

n27 0

n432 0

predecessors

n479 0

n531 (And):

successors

n213 0

predecessors

n151 0

n319 0

n415 (Or):

successors

n287 0

n347 0

n161 0

predecessors

n444 0

n183 0

n536 (Add):

successors

n535 0

n416 (Mem):

successors

n175 0

n552 0

n354 0

predecessors

n86 0

n537 (Or):

successors

n446 0

predecessors

n146 0

n82 0

n413 (Shift):

successors

n412 0

predecessors

n500 0

n534 (Or):

successors

n50 0

predecessors

n26 0

n514 0

n414 (Shift):

successors

n412 0

predecessors

n500 0

n555 0

n535 (Mem):

successors

n116 0

predecessors

n536 0

n9 0

n419 (Or):

successors

n418 0

predecessors

n375 0

n171 0

n417 (Or):

successors

n117 0

predecessors

n440 0

n538 (Add):

successors

n126 0

n418 (Mem):

successors

n371 0

predecessors

n419 0

n539 (Mem):

successors

n349 0

predecessors

n540 0

n9 0

n400 (Sub):

successors

n206 0

n521 (Sub):

successors

n470 0

n401 (Shift):

successors

n96 0

predecessors

n159 0

n478 0

n522 (Sub):

successors

n454 0

n520 (Or):

successors

n475 0

predecessors

n131 0

n107 0

n404 (Add):

successors

n403 0

n525 (Or):

successors

n295 0

predecessors

n180 0

n502 0

n405 (Mem):

successors

n367 0

n513 0

n307 0

predecessors

n368 0

n526 (And):

successors

n370 0

predecessors

n376 0

n64 0

n402 (Or):

successors

n385 0

predecessors

n279 0

n75 0

n523 (Or):

successors

n176 0

predecessors

n378 0

n448 0

n403 (Mem):

successors

n358 0

predecessors

n404 0

n9 0

n524 (Sub):

successors

n467 0

n408 (Mem):

successors

n316 0

n437 0

predecessors

n517 0

n529 (Or):

successors

n376 0

n421 0

predecessors

n354 0

n409 (Or):

successors

n496 0

n335 0

n316 0

predecessors

n386 0

n11 0

n406 (Or):

successors

n280 0

predecessors

n338 0

n219 0

n527 (Shift):

successors

n250 0

predecessors

n215 0

n407 (Shift):

successors

n280 0

predecessors

n232 0

n528 (Shift):

successors

n379 0

predecessors

n302 0

n550 (Sub):

successors

n301 0

n430 (Sub):

successors

n429 0

n551 (Or):

successors

n291 0

predecessors

n394 0

n369 0

n312 (Sub):

successors

n140 0

n433 (Shift):

successors

n431 0

predecessors

n514 0

n554 (Or):

successors

n60 0

predecessors

n125 0

n329 0

n313 (Or):

successors

n494 0

predecessors

n314 0

n315 0

n434 (Shift):

successors

n486 0

predecessors

n252 0

n555 (Sub):

successors

n414 0

n310 (Or):

successors

n309 0

predecessors

n460 0

n59 0

n431 (Or):

successors

n258 0

n259 0

predecessors

n433 0

n432 0

n552 (Shift):

successors

n500 0

predecessors

n416 0

n311 (Shift):

successors

n309 0

predecessors

n314 0

n432 (Or):

successors

n431 0

predecessors

n410 0

n250 0

n553 (Add):

successors

n296 0

n316 (Or):

successors

n185 0

predecessors

n408 0

n409 0

n437 (And):

successors

n450 0

n293 0

predecessors

n377 0

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n558 (Add):

successors

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n317 (Shift):

successors

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predecessors

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n559 (Sub):

successors

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n548 0

predecessors

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n438 0

n435 (Mem):

successors

n134 0

predecessors

n9 0

n436 0

n556 (Add):

successors

n547 0

n315 (Mem):

successors

n313 0

n134 0

n516 0

predecessors

n396 0

n436 (Add):

successors

n435 0

n557 (Sub):

successors

n229 0

n318 (Mem):

successors

n253 0

n130 0

n349 0

predecessors

n46 0

n439 (Sub):

successors

n438 0

n319 (Or):

successors

n212 0

n531 0

predecessors

n320 0

n6 0

n540 (Add):

successors

n539 0

n301 (Shift):

successors

n299 0

predecessors

n550 0

n471 0

n422 (And):

successors

n60 0

predecessors

n385 0

n423 0

n543 (Shift):

successors

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predecessors

n545 0

n549 0

n302 (Or):

successors

n175 0

n292 0

n528 0

predecessors

n303 0

n304 0

n423 (Mem):

successors

n422 0

n548 0

predecessors

n515 0

n544 (Sub):

successors

n487 0

n420 (Or):

successors

n322 0

predecessors

n355 0

n421 0

n541 (Mem):

successors

n116 0

predecessors

n112 0

n300 (Shift):

successors

n299 0

predecessors

n471 0

n421 (Or):

successors

n420 0

predecessors

n196 0

n529 0

n542 (Shift):

successors

n124 0

predecessors

n545 0

n305 (Shift):

successors

n342 0

predecessors

n153 0

n426 (Mem):

successors

n270 0

predecessors

n209 0

n547 (Mem):

successors

n308 0

predecessors

n556 0

n9 0

n306 (Or):

successors

n274 0

n334 0

predecessors

n307 0

n308 0

n427 (Or):

successors

n262 0

n261 0

predecessors

n94 0

n219 0

n548 (Or):

successors

n80 0

predecessors

n423 0

n314 0

n303 (Shift):

successors

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predecessors

n53 0

n424 (Or):

successors

n31 0

predecessors

n147 0

n109 0

n545 (Mem):

successors

n543 0

n542 0

predecessors

n327 0

n304 (Shift):

successors

n302 0

predecessors

n546 0

n53 0

n425 (Mem):

successors

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predecessors

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successors

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n309 (Or):

successors

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n454 0

predecessors

n310 0

n311 0

n307 (Or):

successors

n306 0

n381 0

predecessors

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n405 0

n428 (Sub):

successors

n262 0

n549 (Sub):

successors

n543 0

n308 (Or):

successors

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n251 0

n547 0

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successors

n507 0

predecessors

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n330 (Or):

successors

n325 0

n326 0

predecessors

n372 0

n371 0

n451 (Or):

successors

n450 0

predecessors

n350 0

n210 (Shift):

successors

n209 0

predecessors

n14 0

n331 (Sub):

successors

n326 0

n452 (Mem):

successors

n84 0

n450 (Or):

successors

n239 0

predecessors

n451 0

n437 0

n213 (Or):

successors

n211 0

n277 0

predecessors

n510 0

n531 0

n334 (Or):

successors

n159 0

predecessors

n269 0

n306 0

n455 (Or):

successors

n338 0

predecessors

n456 0

n148 0

n214 (Or):

successors

n5 0

n328 0

predecessors

n243 0

n340 0

n335 (Or):

successors

n178 0

n179 0

predecessors

n186 0

n409 0

n456 (Shift):

successors

n455 0

predecessors

n149 0

n211 (Or):

successors

n52 0

predecessors

n213 0

n212 0

n332 (Shift):

successors

n250 0

predecessors

n333 0

n215 0

n453 (Shift):

successors

n37 0

predecessors

n309 0

n212 (Or):

successors

n276 0

n211 0

n23 0

predecessors

n449 0

n319 0

n333 (Sub):

successors

n332 0

n454 (Shift):

successors

n37 0

predecessors

n522 0

n309 0

n217 (Or):

successors

n149 0

predecessors

n218 0

n219 0

n338 (Mem):

successors

n449 0

n337 0

n406 0

predecessors

n455 0

n459 (Or):

successors

n220 0

predecessors

n36 0

n460 0

n218 (Mem):

successors

n274 0

n217 0

predecessors

n235 0

n339 (Or):

successors

n293 0

predecessors

n272 0

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successors

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successors

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n43 0

predecessors

n3 0

n270 (Or):

successors

n269 0

n365 0

n382 0

predecessors

n362 0

n426 0

n391 (Shift):

successors

n498 0

predecessors

n392 0

n291 0

n47 (Shift):

successors

n46 0

predecessors

n462 0

n143 (Or):

successors

n462 0

n129 0

n371 0

predecessors

n144 0

n43 0

n264 (Or):

successors

n263 0

predecessors

n358 0

n359 0

n385 (Or):

successors

n383 0

n422 0

predecessors

n18 0

n402 0

n46 (Or):

successors

n318 0

predecessors

n47 0

n48 0

n144 (Shift):

successors

n143 0

predecessors

n44 0

n265 (Add):

successors

n189 0

n386 (Shift):

successors

n409 0

predecessors

n387 0

n12 0

n49 (Shift):

successors

n368 0

predecessors

n50 0

n141 (Mem):

successors

n195 0

predecessors

n142 0

n9 0

n262 (Shift):

successors

n260 0

predecessors

n427 0

n428 0

n383 (Or):

successors

n411 0

predecessors

n385 0

n384 0

n48 (Shift):

successors

n46 0

predecessors

n462 0

n463 0

n142 (Add):

successors

n141 0

n263 (And):

successors

n238 0

predecessors

n264 0

n56 0

n384 (Or):

successors

n383 0

predecessors

n17 0

n329 0

n147 (Or):

successors

n145 0

n424 0

n162 0

predecessors

n352 0

n97 0

n268 (Mem):

successors

n266 0

predecessors

n507 0

n389 (Shift):

successors

n442 0

predecessors

n374 0

n390 0

n148 (Shift):

successors

n455 0

predecessors

n149 0

n150 0

n269 (And):

successors

n334 0

predecessors

n271 0

n270 0

n145 (Or):

successors

n287 0

predecessors

n147 0

n146 0

n266 (Or):

successors

n359 0

n490 0

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n268 0

n267 0

n387 (Sub):

successors

n386 0

n146 (Mem):

successors

n145 0

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predecessors

n238 0

n267 (Mem):

successors

n266 0

predecessors

n9 0

n519 0

n388 (Add):

successors

n106 0

n149 (Or):

successors

n148 0

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n217 0

n518 0

n50 (Or):

successors

n49 0

n360 0

predecessors

n534 0

n250 0

n180 (Or):

successors

n525 0

n271 0

predecessors

n181 0

n182 0

n52 (Mem):

successors

n284 0

n285 0

n51 0

predecessors

n211 0

n51 (And):

successors

n39 0

n23 0

predecessors

n52 0

n53 0

n54 (And):

successors

n20 0

predecessors

n56 0

n55 0

n183 (Shift):

successors

n415 0

predecessors

n58 0

n53 (Mem):

successors

n303 0

n51 0

n304 0

predecessors

n71 0

n184 (Shift):

successors

n241 0

predecessors

n185 0

n56 (Or):

successors

n263 0

n446 0

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predecessors

n82 0

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n181 (Mem):

successors

n180 0

predecessors

n346 0

n9 0

n55 (Or):

successors

n54 0

n56 0

predecessors

n110 0

n395 0

n182 (Mem):

successors

n180 0

predecessors

n204 0

n58 (Mem):

successors

n57 0

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n183 0

predecessors

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n176 (Mem):

successors

n174 0

n458 0

n195 0

predecessors

n523 0

n297 (Mem):

successors

n85 0

n57 (And):

successors

n197 0

predecessors

n58 0

n19 0

n177 (Or):

successors

n224 0

predecessors

n178 0

n179 0

n298 (Sub):

successors

n285 0

n174 (Or):

successors

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predecessors

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n295 (Mem):

successors

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predecessors

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n59 (Mem):

successors

n310 0

predecessors

n60 0

n175 (Or):

successors

n174 0

predecessors

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n296 (Mem):

successors

n85 0

predecessors

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n9 0

n178 (Shift):

successors

n177 0

predecessors

n335 0

n299 (Or):

successors

n532 0

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n301 0

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n179 (Shift):

successors

n177 0

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n335 0

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n61 (Mem):

successors

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n9 0

n62 0

n60 (Or):

successors

n59 0

predecessors

n554 0

n422 0

n290 (Shift):

successors

n498 0

predecessors

n291 0

n63 (Shift):

successors

n131 0

predecessors

n65 0

n64 0

n62 (Add):

successors

n61 0

n65 (Sub):

successors

n63 0

n172 (Mem):

successors

n236 0

predecessors

n9 0

n173 0

n293 (Or):

successors

n187 0

predecessors

n437 0

n339 0

n64 (Mem):

successors

n132 0

n526 0

n63 0

predecessors

n91 0

n173 (Add):

successors

n172 0

n294 (Shift):

successors

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predecessors

n295 0

n67 (Or):

successors

n87 0

n66 0

predecessors

n35 0

n292 0

n170 (Mem):

successors

n169 0

predecessors

n155 0

n291 (Or):

successors

n290 0

n391 0

predecessors

n551 0

n131 0

n66 (Shift):

successors

n86 0

predecessors

n68 0

n67 0

n171 (Or):

successors

n419 0

predecessors

n115 0

n292 (Or):

successors

n67 0

predecessors

n38 0

n302 0

n69 (Mem):

successors

n169 0

predecessors

n70 0

n9 0

n165 (Mem):

successors

n163 0

predecessors

n227 0

n286 (Shift):

successors

n533 0

predecessors

n287 0

n288 0

n68 (Sub):

successors

n66 0

n166 (Or):

successors

n245 0

n234 0

predecessors

n167 0

n168 0

n287 (Or):

successors

n286 0

n472 0

predecessors

n145 0

n415 0

n163 (Or):

successors

n196 0

n499 0

n92 0

predecessors

n165 0

n164 0

n284 (Shift):

successors

n35 0

predecessors

n52 0

n164 (Mem):

successors

n163 0

predecessors

n233 0

n9 0

n285 (Shift):

successors

n35 0

predecessors

n298 0

n52 0

n169 (Or):

successors

n246 0

predecessors

n69 0

n170 0

n167 (Mem):

successors

n166 0

predecessors

n558 0

n9 0

n288 (Sub):

successors

n286 0

n168 (Mem):

successors

n166 0

predecessors

n398 0

n289 (Add):

successors

n120 0

n70 (Add):

successors

n69 0

n72 (Or):

successors

n186 0

n317 0

n283 0

predecessors

n74 0

n73 0

n71 (Or):

successors

n53 0

predecessors

n276 0

n447 0

n74 (Shift):

successors

n72 0

predecessors

n240 0

n239 0

n73 (Shift):

successors

n72 0

predecessors

n239 0

n76 (Or):

successors

n18 0

n17 0

n75 0

predecessors

n121 0

n120 0

n75 (Or):

successors

n246 0

n402 0

predecessors

n76 0

n78 (Or):

successors

n18 0

n329 0

predecessors

n107 0

n106 0

n77 (Or):

successors

n29 0

predecessors

n103 0

n137 0

n198 (Or):

successors

n12 0

predecessors

n199 0

n200 0

n79 (Shift):

successors

n396 0

predecessors

n81 0

n80 0

n199 (Or):

successors

n198 0

n517 0

predecessors

n201 0

n272 0

n196 (Or):

successors

n474 0

n376 0

n421 0

n194 0

predecessors

n163 0

n195 0

n197 (Or):

successors

n98 0

predecessors

n57 0

n511 0

n81 (Sub):

successors

n79 0

n80 (Or):

successors

n79 0

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predecessors

n460 0

n548 0

n83 (Or):

successors

n351 0

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predecessors

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successors

n188 0

predecessors

n412 0

n82 (Or):

successors

n537 0

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n56 0

predecessors

n358 0

n490 0

n191 (Or):

successors

n277 0

predecessors

n192 0

n193 0

n85 (Or):

successors

n83 0

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predecessors

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n296 0

n84 (Or):

successors

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n452 0

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n87 (Shift):

successors

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predecessors

n67 0

n194 (And):

successors

n355 0

predecessors

n196 0

n195 0

n86 (Or):

successors

n416 0

predecessors

n87 0

n66 0

n195 (Or):

successors

n196 0

n194 0

predecessors

n176 0

n141 0

n89 (Or):

successors

n216 0

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predecessors

n225 0

n366 0

n192 (Or):

successors

n191 0

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predecessors

n232 0

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n88 (Or):

successors

n345 0

predecessors

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n89 0

n193 (Or):

successors

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predecessors

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n187 (Mem):

successors

n186 0

predecessors

n293 0

n188 (Or):

successors

n355 0

predecessors

n189 0

n190 0

n185 (Or):

successors

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predecessors

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n186 (Or):

successors

n335 0

predecessors

n187 0

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n189 (Mem):

successors

n188 0

predecessors

n265 0

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Nr of Nodes : 563

ASAP

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n339 : [7:7]

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n487 : [188:188]

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n429 : [188:188]

n486 : [189:189]

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n268 : [190:191]

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n359 : [193:193]

n264 : [194:194]

n490 : [194:194]

n82 : [195:195]

n56 : [196:196]

n263 : [197:197]

n54 : [197:197]

n238 : [198:198]

n20 : [198:198]

n146 : [199:200]

n19 : [199:200]

n537 : [201:201]

n446 : [202:202]

n445 : [203:203]

n511 : [203:203]

n491 : [204:204]

n58 : [205:206]

n57 : [207:207]

n444 : [207:207]

n183 : [207:207]

n197 : [208:208]

n415 : [208:208]

n98 : [209:210]

n161 : [209:209]

n352 : [211:211]

n97 : [211:211]

n147 : [212:212]

n145 : [213:213]

n162 : [213:213]

n287 : [214:214]

n160 : [214:214]

n286 : [215:215]

n472 : [215:215]

n469 : [215:215]

n470 : [215:215]

n533 : [216:216]

n468 : [216:216]

n425 : [217:218]

n109 : [217:218]

n108 : [219:219]

n347 : [219:219]

n424 : [219:219]

n153 : [220:220]

n31 : [220:220]

n152 : [221:221]

n230 : [221:221]

n305 : [221:221]

n30 : [221:221]

n342 : [222:222]

n492 : [222:222]

n341 : [223:224]

n509 : [223:224]

Registered resources

AND 197 4.0

AND 207 2.0

AND 203 2.0

AND 194 2.0

AND 172 2.0

AND 171 2.0

AND 147 2.0

AND 143 2.0

AND 121 2.0

AND 117 2.0

AND 115 2.0

AND 112 2.0

AND 94 2.0

AND 90 2.0

AND 87 2.0

AND 86 2.0

AND 65 2.0

AND 63 2.0

AND 58 2.0

AND 38 2.0

AND 34 2.0

AND 11 2.0

AND 6 2.0

AND 5 2.0

OR 144 10.0

OR 186 8.0

OR 105 8.0

OR 50 8.0

OR 23 8.0

OR 8 8.0

OR 4 8.0

OR 163 6.0

OR 157 6.0

OR 138 6.0

OR 114 6.0

OR 95 6.0

OR 86 6.0

OR 80 6.0

OR 51 6.0

OR 7 6.0

OR 222 4.0

OR 220 4.0

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OR 216 4.0

OR 214 4.0

OR 208 4.0

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OR 37 2.0

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OR 6 2.0

OR 5 2.0

SUB 0 67.19999999999999

CMP 0 4.2

ADD 0 33.0

SH 221 8.0

SH 215 8.0

SH 188 8.0

SH 182 8.0

SH 133 8.0

SH 81 8.0

SH 52 8.0

SH 46 8.0

SH 25 8.0

SH 19 8.0

SH 211 4.0

SH 207 4.0

SH 178 4.0

SH 175 4.0

SH 159 4.0

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SH 75 4.0

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SH 64 2.0

SH 50 2.0

SH 44 2.0

SH 23 2.0

SH 17 2.0

MEM 3 288.0

MEM 2 288.0

MEM 1 45.0

MEM 0 45.0

MEM 224 18.0

MEM 223 18.0

MEM 218 18.0

MEM 217 18.0

MEM 200 18.0

MEM 199 18.0

MEM 191 18.0

MEM 190 18.0

MEM 185 18.0

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MEM 174 18.0

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MEM 109 18.0

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MEM 97 18.0

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MEM 35 9.0

MEM 11 9.0

MEM 9 9.0

cost = 414.4

ALAP

Found schedule of length 225

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n553 : [1:1]

n10 : [1:1]

n297 : [2:3]

n452 : [2:3]

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n8 : [2:3]

n173 : [2:2]

n473 : [3:3]

n237 : [3:4]

n172 : [3:4]

n202 : [4:5]

n203 : [4:5]

n85 : [4:4]

n84 : [4:4]

n236 : [5:5]

n83 : [5:5]

n201 : [6:6]

n272 : [6:6]

n199 : [7:7]

n282 : [7:7]

n351 : [8:8]

n517 : [8:8]

n350 : [9:9]

n408 : [9:10]

n377 : [10:10]

n451 : [11:11]

n437 : [11:11]

n450 : [12:12]

n200 : [12:12]

n198 : [13:13]

n239 : [13:14]

n339 : [13:13]

n240 : [14:14]

n293 : [14:14]

n12 : [14:15]

n187 : [15:16]

n387 : [15:15]

n74 : [15:15]

n73 : [15:15]

n386 : [16:16]

n72 : [16:16]

n11 : [16:16]

n186 : [17:17]

n409 : [17:17]

n335 : [18:18]

n316 : [18:18]

n317 : [18:18]

n336 : [18:18]

n493 : [19:19]

n185 : [19:19]

n178 : [19:19]

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n242 : [20:20]

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n184 : [20:20]

n241 : [21:21]

n224 : [21:22]

n366 : [22:23]

n283 : [23:23]

n41 : [24:24]

n42 : [24:24]

n343 : [25:25]

n40 : [25:25]

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n465 : [27:27]

n301 : [28:28]

n300 : [28:28]

n223 : [28:29]

n166 : [29:29]

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n255 : [30:31]

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n225 : [31:32]

n244 : [32:32]

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n137 : [33:33]

n89 : [33:33]

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n215 : [35:36]

n88 : [35:35]

n345 : [36:36]

n104 : [37:37]

n105 : [37:37]

n480 : [37:37]

n103 : [38:38]

n479 : [38:38]

n410 : [39:40]

n77 : [39:39]

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n26 : [42:43]

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n333 : [42:42]

n332 : [43:43]

n514 : [43:43]

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n534 : [44:44]

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n361 : [45:45]

n433 : [45:45]

n432 : [45:45]

n50 : [45:45]

n49 : [46:46]

n431 : [46:46]

n559 : [46:46]

n360 : [46:46]

n258 : [47:47]

n368 : [47:47]

n259 : [47:47]

n257 : [48:48]

n405 : [48:49]

n251 : [49:50]

n513 : [50:50]

n367 : [51:51]

n400 : [51:51]

n399 : [51:51]

n249 : [51:51]

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n15 : [52:52]

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n306 : [58:58]

n334 : [59:59]

n159 : [60:61]

n382 : [62:62]

n365 : [63:63]

n381 : [63:63]

n364 : [64:64]

n503 : [64:64]

n502 : [65:65]

n235 : [66:66]

n525 : [66:66]

n295 : [67:68]

n218 : [67:68]

n495 : [68:68]

n275 : [69:69]

n274 : [69:69]

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n217 : [74:74]

n427 : [74:74]

n518 : [74:74]

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n24 : [83:84]

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n320 : [84:85]

n6 : [84:85]

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n151 : [85:85]

n192 : [85:85]

n447 : [86:86]

n193 : [86:86]

n319 : [86:86]

n510 : [87:87]

n531 : [87:87]

n213 : [88:88]

n191 : [88:88]

n277 : [89:89]

n212 : [89:89]

n276 : [90:90]

n211 : [91:91]

n71 : [91:91]

n52 : [92:93]

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n51 : [94:94]

n39 : [95:95]

n546 : [95:95]

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n22 : [95:95]

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n303 : [96:96]

n304 : [96:96]

n21 : [96:96]

n284 : [97:97]

n285 : [97:97]

n302 : [97:97]

n34 : [97:98]

n35 : [98:98]

n292 : [98:98]

n68 : [99:99]

n67 : [99:99]

n33 : [99:99]

n528 : [99:99]

n379 : [100:100]

n87 : [100:100]

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n66 : [100:100]

n378 : [101:101]

n448 : [101:101]

n86 : [101:101]

n416 : [102:103]

n523 : [102:102]

n176 : [103:104]

n175 : [104:104]

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n476 : [109:110]

n163 : [110:110]

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n190 : [110:111]

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n355 : [113:113]

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n91 : [118:118]

n64 : [119:120]

n499 : [121:121]

n526 : [121:121]

n323 : [122:122]

n370 : [122:122]

n474 : [123:123]

n321 : [123:123]

n443 : [123:123]

n369 : [123:124]

n65 : [123:123]

n132 : [124:124]

n394 : [124:124]

n63 : [124:124]

n348 : [124:125]

n551 : [125:125]

n131 : [125:125]

n101 : [126:126]

n102 : [126:126]

n392 : [126:126]

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n100 : [127:127]

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n170 : [136:137]

n125 : [137:137]

n76 : [137:137]

n78 : [137:137]

n18 : [138:138]

n169 : [138:138]

n17 : [138:138]

n75 : [138:138]

n16 : [139:139]

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n530 : [140:140]

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n124 : [179:179]

n122 : [180:180]

n372 : [180:180]

n371 : [180:180]

n462 : [181:181]

n330 : [181:181]

n463 : [181:181]

n331 : [181:181]

n47 : [182:182]

n48 : [182:182]

n325 : [182:182]

n326 : [182:182]

n46 : [183:183]

n324 : [183:183]

n254 : [184:185]

n318 : [184:185]

n130 : [186:186]

n129 : [186:186]

n430 : [187:187]

n128 : [187:187]

n508 : [188:188]

n429 : [188:188]

n253 : [189:189]

n540 : [189:189]

n507 : [189:189]

n519 : [189:189]

n252 : [190:190]

n268 : [190:191]

n544 : [190:190]

n267 : [190:191]

n539 : [190:191]

n434 : [191:191]

n487 : [191:191]

n404 : [191:191]

n111 : [192:192]

n486 : [192:192]

n266 : [192:192]

n349 : [192:192]

n403 : [192:193]

n110 : [193:194]

n395 : [193:194]

n359 : [193:193]

n358 : [194:194]

n490 : [194:194]

n82 : [195:195]

n55 : [195:195]

n264 : [196:196]

n56 : [196:196]

n263 : [197:197]

n238 : [198:198]

n146 : [199:200]

n54 : [199:199]

n20 : [200:200]

n19 : [201:202]

n537 : [201:201]

n446 : [202:202]

n445 : [203:203]

n491 : [204:204]

n58 : [205:206]

n57 : [207:207]

n511 : [207:207]

n197 : [208:208]

n98 : [209:210]

n461 : [210:210]

n99 : [210:210]

n352 : [211:211]

n444 : [211:211]

n183 : [211:211]

n97 : [211:211]

n147 : [212:212]

n415 : [212:212]

n145 : [213:213]

n161 : [213:213]

n162 : [213:213]

n287 : [214:214]

n521 : [214:214]

n288 : [214:214]

n160 : [214:214]

n286 : [215:215]

n472 : [215:215]

n469 : [215:215]

n470 : [215:215]

n533 : [216:216]

n468 : [216:216]

n425 : [217:218]

n109 : [217:218]

n108 : [219:219]

n347 : [219:219]

n424 : [219:219]

n154 : [220:220]

n153 : [220:220]

n32 : [220:220]

n31 : [220:220]

n152 : [221:221]

n230 : [221:221]

n305 : [221:221]

n30 : [221:221]

n342 : [222:222]

n492 : [222:222]

n341 : [223:224]

n509 : [223:224]

n561 : [224:224]

n562 : [224:224]

n560 : [224:224]

Registered resources

AND 117 4.0

AND 87 4.0

AND 207 2.0

AND 203 2.0

AND 199 2.0

AND 197 2.0

AND 194 2.0

AND 176 2.0

AND 171 2.0

AND 147 2.0

AND 143 2.0

AND 121 2.0

AND 112 2.0

AND 94 2.0

AND 90 2.0

AND 65 2.0

AND 63 2.0

AND 58 2.0

AND 38 2.0

AND 37 2.0

AND 11 2.0

AND 8 2.0

AND 7 2.0

OR 138 8.0

OR 57 8.0

OR 192 6.0

OR 137 6.0

OR 95 6.0

OR 86 6.0

OR 85 6.0

OR 222 4.0

OR 220 4.0

OR 219 4.0

OR 216 4.0

OR 214 4.0

OR 213 4.0

OR 212 4.0

OR 196 4.0

OR 195 4.0

OR 189 4.0

OR 183 4.0

OR 181 4.0

OR 180 4.0

OR 179 4.0

OR 165 4.0

OR 164 4.0

OR 163 4.0

OR 162 4.0

OR 159 4.0

OR 151 4.0

OR 150 4.0

OR 145 4.0

OR 144 4.0

OR 139 4.0

OR 132 4.0

OR 126 4.0

OR 125 4.0

OR 116 4.0

OR 113 4.0

OR 112 4.0

OR 111 4.0

OR 110 4.0

OR 107 4.0

OR 99 4.0

OR 98 4.0

OR 91 4.0

OR 89 4.0

OR 88 4.0

OR 80 4.0

OR 74 4.0

OR 73 4.0

OR 69 4.0

OR 66 4.0

OR 64 4.0

OR 51 4.0

OR 45 4.0

OR 44 4.0

OR 37 4.0

OR 33 4.0

OR 32 4.0

OR 30 4.0

OR 29 4.0

OR 26 4.0

OR 18 4.0

OR 17 4.0

OR 13 4.0

OR 12 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

OR 208 2.0

OR 207 2.0

OR 204 2.0

OR 202 2.0

OR 201 2.0

OR 200 2.0

OR 198 2.0

OR 194 2.0

OR 193 2.0

OR 190 2.0

OR 187 2.0

OR 186 2.0

OR 177 2.0

OR 176 2.0

OR 175 2.0

OR 174 2.0

OR 172 2.0

OR 171 2.0

OR 170 2.0

OR 169 2.0

OR 166 2.0

OR 161 2.0

OR 158 2.0

OR 157 2.0

OR 156 2.0

OR 154 2.0

OR 153 2.0

OR 152 2.0

OR 149 2.0

OR 148 2.0

OR 147 2.0

OR 146 2.0

OR 143 2.0

OR 140 2.0

OR 135 2.0

OR 134 2.0

OR 133 2.0

OR 131 2.0

OR 129 2.0

OR 128 2.0

OR 127 2.0

OR 124 2.0

OR 123 2.0

OR 122 2.0

OR 121 2.0

OR 118 2.0

OR 114 2.0

OR 109 2.0

OR 106 2.0

OR 105 2.0

OR 104 2.0

OR 102 2.0

OR 101 2.0

OR 100 2.0

OR 97 2.0

OR 96 2.0

OR 83 2.0

OR 82 2.0

OR 81 2.0

OR 79 2.0

OR 77 2.0

OR 76 2.0

OR 75 2.0

OR 72 2.0

OR 70 2.0

OR 68 2.0

OR 63 2.0

OR 62 2.0

OR 59 2.0

OR 58 2.0

OR 56 2.0

OR 54 2.0

OR 53 2.0

OR 52 2.0

OR 50 2.0

OR 48 2.0

OR 47 2.0

OR 46 2.0

OR 43 2.0

OR 41 2.0

OR 39 2.0

OR 38 2.0

OR 36 2.0

OR 35 2.0

OR 34 2.0

OR 31 2.0

OR 27 2.0

OR 24 2.0

OR 23 2.0

OR 21 2.0

OR 20 2.0

OR 19 2.0

OR 16 2.0

OR 14 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 7 2.0

CMP 224 4.2

SUB 220 2.8

SUB 214 2.8

SUB 210 2.8

SUB 181 2.8

SUB 177 2.8

SUB 190 1.4

SUB 187 1.4

SUB 159 1.4

SUB 157 1.4

SUB 152 1.4

SUB 151 1.4

SUB 148 1.4

SUB 147 1.4

SUB 133 1.4

SUB 132 1.4

SUB 127 1.4

SUB 126 1.4

SUB 123 1.4

SUB 122 1.4

SUB 107 1.4

SUB 105 1.4

SUB 100 1.4

SUB 99 1.4

SUB 96 1.4

SUB 95 1.4

SUB 81 1.4

SUB 80 1.4

SUB 75 1.4

SUB 74 1.4

SUB 71 1.4

SUB 70 1.4

SUB 52 1.4

SUB 51 1.4

SUB 46 1.4

SUB 45 1.4

SUB 42 1.4

SUB 41 1.4

SUB 27 1.4

SUB 24 1.4

SUB 19 1.4

SUB 18 1.4

SUB 15 1.4

SUB 14 1.4

ADD 134 3.0

ADD 82 3.0

ADD 54 3.0

ADD 189 2.0

ADD 159 2.0

ADD 107 2.0

ADD 1 2.0

ADD 224 1.0

ADD 192 1.0

ADD 191 1.0

ADD 162 1.0

ADD 161 1.0

ADD 135 1.0

ADD 109 1.0

ADD 108 1.0

ADD 83 1.0

ADD 53 1.0

ADD 30 1.0

ADD 29 1.0

ADD 27 1.0

ADD 26 1.0

ADD 3 1.0

ADD 2 1.0

SH 221 8.0

SH 215 8.0

SH 211 8.0

SH 182 8.0

SH 178 8.0

SH 158 6.0

SH 106 6.0

SH 191 4.0

SH 188 4.0

SH 160 4.0

SH 153 4.0

SH 152 4.0

SH 149 4.0

SH 148 4.0

SH 134 4.0

SH 133 4.0

SH 128 4.0

SH 127 4.0

SH 124 4.0

SH 123 4.0

SH 108 4.0

SH 101 4.0

SH 100 4.0

SH 97 4.0

SH 96 4.0

SH 82 4.0

SH 81 4.0

SH 76 4.0

SH 75 4.0

SH 72 4.0

SH 71 4.0

SH 53 4.0

SH 52 4.0

SH 47 4.0

SH 46 4.0

SH 43 4.0

SH 42 4.0

SH 28 4.0

SH 25 4.0

SH 20 4.0

SH 19 4.0

SH 16 4.0

SH 15 4.0

SH 219 2.0

SH 213 2.0

SH 186 2.0

SH 180 2.0

SH 151 2.0

SH 132 2.0

SH 126 2.0

SH 99 2.0

SH 80 2.0

SH 74 2.0

SH 51 2.0

SH 45 2.0

SH 26 2.0

SH 18 2.0

MEM 136 54.0

MEM 84 54.0

MEM 55 54.0

MEM 3 54.0

MEM 135 36.0

MEM 109 36.0

MEM 83 36.0

MEM 56 36.0

MEM 4 36.0

MEM 2 36.0

MEM 193 27.0

MEM 191 27.0

MEM 190 27.0

MEM 163 27.0

MEM 161 27.0

MEM 160 27.0

MEM 110 27.0

MEM 108 27.0

MEM 31 27.0

MEM 28 27.0

MEM 224 18.0

MEM 223 18.0

MEM 218 18.0

MEM 217 18.0

MEM 194 18.0

MEM 185 18.0

MEM 184 18.0

MEM 162 18.0

MEM 155 18.0

MEM 137 18.0

MEM 130 18.0

MEM 124 18.0

MEM 111 18.0

MEM 103 18.0

MEM 97 18.0

MEM 93 18.0

MEM 92 18.0

MEM 85 18.0

MEM 78 18.0

MEM 68 18.0

MEM 67 18.0

MEM 54 18.0

MEM 49 18.0

MEM 40 18.0

MEM 30 18.0

MEM 27 18.0

MEM 22 18.0

MEM 15 18.0

MEM 14 18.0

MEM 5 18.0

MEM 210 9.0

MEM 209 9.0

MEM 206 9.0

MEM 205 9.0

MEM 202 9.0

MEM 201 9.0

MEM 200 9.0

MEM 199 9.0

MEM 192 9.0

MEM 179 9.0

MEM 178 9.0

MEM 177 9.0

MEM 176 9.0

MEM 174 9.0

MEM 173 9.0

MEM 168 9.0

MEM 167 9.0

MEM 164 9.0

MEM 156 9.0

MEM 154 9.0

MEM 150 9.0

MEM 149 9.0

MEM 148 9.0

MEM 147 9.0

MEM 146 9.0

MEM 145 9.0

MEM 142 9.0

MEM 141 9.0

MEM 131 9.0

MEM 129 9.0

MEM 125 9.0

MEM 123 9.0

MEM 120 9.0

MEM 119 9.0

MEM 116 9.0

MEM 115 9.0

MEM 104 9.0

MEM 102 9.0

MEM 98 9.0

MEM 96 9.0

MEM 79 9.0

MEM 77 9.0

MEM 72 9.0

MEM 71 9.0

MEM 61 9.0

MEM 60 9.0

MEM 50 9.0

MEM 48 9.0

MEM 43 9.0

MEM 42 9.0

MEM 41 9.0

MEM 39 9.0

MEM 36 9.0

MEM 35 9.0

MEM 32 9.0

MEM 29 9.0

MEM 23 9.0

MEM 21 9.0

MEM 16 9.0

MEM 13 9.0

MEM 10 9.0

MEM 9 9.0

MEM 1 9.0

MEM 0 9.0

cost = 84.0

# SerpentEngine-makeWorkingKey-15-82

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64187:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-15-82.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-15-82.dot

n0 (Mem):

successors

n11 0

predecessors

n1 0

n1 (Add):

successors

n0 0

n2 (Shift):

successors

n8 0

predecessors

n3 0

n3 (And):

successors

n2 0

predecessors

n14 0

n4 (Mem):

successors

n13 0

predecessors

n5 0

n5 (Add):

successors

n4 0

n6 (Or):

successors

n15 0

predecessors

n7 0

n8 0

n7 (Or):

successors

n6 0

predecessors

n9 0

n10 0

n8 (Or):

successors

n6 0

predecessors

n13 0

n2 0

n9 (Shift):

successors

n7 0

predecessors

n12 0

n10 (Shift):

successors

n7 0

predecessors

n11 0

n20 (Add):

n12 (And):

successors

n9 0

predecessors

n16 0

n11 (And):

successors

n10 0

predecessors

n0 0

n14 (Mem):

successors

n3 0

predecessors

n17 0

n13 (And):

successors

n8 0

predecessors

n4 0

n16 (Mem):

successors

n12 0

n15 (Mem):

predecessors

n6 0

n18 (Add):

n17 (Add):

successors

n14 0

n19 (Cmp):

Nr of Nodes : 21

ASAP

Found schedule of length 9

n16 : [0:1]

n1 : [0:0]

n18 : [0:0]

n17 : [0:0]

n5 : [0:0]

n19 : [0:0]

n20 : [0:0]

n14 : [1:2]

n0 : [1:2]

n4 : [1:2]

n12 : [2:2]

n13 : [3:3]

n3 : [3:3]

n9 : [3:3]

n11 : [3:3]

n2 : [4:4]

n10 : [4:4]

n7 : [5:5]

n8 : [5:5]

n6 : [6:6]

n15 : [7:8]

Registered resources

OR 5 4.0

OR 6 2.0

SH 4 4.0

SH 3 2.0

CMP 0 2.1

AND 3 6.0

AND 2 2.0

ADD 0 5.0

MEM 1 36.0

MEM 2 27.0

MEM 8 9.0

MEM 7 9.0

MEM 0 9.0

cost = 57.1

ALAP

Found schedule of length 9

n1 : [0:0]

n17 : [0:0]

n14 : [1:2]

n16 : [1:2]

n0 : [1:2]

n5 : [1:1]

n4 : [2:3]

n3 : [3:3]

n12 : [3:3]

n11 : [3:3]

n13 : [4:4]

n2 : [4:4]

n9 : [4:4]

n10 : [4:4]

n7 : [5:5]

n8 : [5:5]

n6 : [6:6]

n15 : [7:8]

n18 : [8:8]

n19 : [8:8]

n20 : [8:8]

Registered resources

OR 5 4.0

OR 6 2.0

SH 4 6.0

CMP 8 2.1

AND 3 6.0

AND 4 2.0

ADD 8 2.0

ADD 0 2.0

ADD 1 1.0

MEM 2 36.0

MEM 1 27.0

MEM 8 9.0

MEM 7 9.0

MEM 3 9.0

cost = 56.1

# SerpentEngine-makeWorkingKey-15-150

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64202:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-15-150.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-15-150.dot

n0 (And):

successors

n12 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n25 0

n2 (Mem):

successors

n24 0

predecessors

n3 0

n3 (Add):

successors

n2 0

n4 (Or):

successors

n27 0

predecessors

n5 0

n6 0

n5 (Or):

successors

n4 0

predecessors

n19 0

n20 0

n6 (Or):

successors

n4 0

predecessors

n14 0

n13 0

n7 (Mem):

successors

n14 0

predecessors

n8 0

n8 (Add):

successors

n7 0

predecessors

n18 0

n30 (Or):

successors

n29 0

predecessors

n34 0

n33 0

n9 (And):

successors

n11 0

predecessors

n10 0

n10 (Mem):

successors

n9 0

predecessors

n23 0

n32 (Cmp):

predecessors

n18 0

n31 (And):

successors

n13 0

predecessors

n37 0

n12 (Shift):

successors

n11 0

predecessors

n0 0

n34 (Shift):

successors

n30 0

predecessors

n24 0

n11 (Or):

successors

n29 0

predecessors

n9 0

n12 0

n33 (Shift):

successors

n30 0

predecessors

n15 0

n14 (And):

successors

n6 0

predecessors

n7 0

n36 (Mem):

predecessors

n29 0

n13 (Shift):

successors

n6 0

predecessors

n31 0

n35 (Add):

predecessors

n18 0

n16 (Mem):

successors

n15 0

n38 (Add):

successors

n37 0

predecessors

n18 0

n15 (And):

successors

n33 0

predecessors

n16 0

n37 (Mem):

successors

n31 0

predecessors

n38 0

n18 (Add):

successors

n35 0

n38 0

n26 0

n17 0

n8 0

n32 0

n17 (Mem):

successors

n39 0

predecessors

n18 0

n39 (And):

successors

n19 0

predecessors

n17 0

n19 (Shift):

successors

n5 0

predecessors

n39 0

n41 (Cmp):

n40 (Add):

predecessors

n28 0

n21 (And):

successors

n20 0

predecessors

n22 0

n20 (Shift):

successors

n5 0

predecessors

n21 0

n23 (Add):

successors

n10 0

n22 (Mem):

successors

n21 0

predecessors

n26 0

n25 (Add):

successors

n1 0

n24 (And):

successors

n34 0

predecessors

n2 0

n27 (Mem):

predecessors

n28 0

n4 0

n26 (Add):

successors

n22 0

predecessors

n18 0

n29 (Or):

successors

n36 0

predecessors

n30 0

n11 0

n28 (Add):

successors

n27 0

n40 0

Nr of Nodes : 42

ASAP

Found schedule of length 10

n25 : [0:0]

n16 : [0:1]

n18 : [0:0]

n3 : [0:0]

n28 : [0:0]

n41 : [0:0]

n23 : [0:0]

n35 : [1:1]

n38 : [1:1]

n1 : [1:2]

n26 : [1:1]

n2 : [1:2]

n17 : [1:2]

n8 : [1:1]

n40 : [1:1]

n32 : [1:1]

n10 : [1:2]

n15 : [2:2]

n37 : [2:3]

n7 : [2:3]

n22 : [2:3]

n24 : [3:3]

n0 : [3:3]

n39 : [3:3]

n9 : [3:3]

n33 : [3:3]

n14 : [4:4]

n19 : [4:4]

n21 : [4:4]

n31 : [4:4]

n34 : [4:4]

n12 : [4:4]

n13 : [5:5]

n30 : [5:5]

n20 : [5:5]

n11 : [5:5]

n29 : [6:6]

n5 : [6:6]

n6 : [6:6]

n36 : [7:8]

n4 : [7:7]

n27 : [8:9]

Registered resources

OR 6 6.0

OR 5 4.0

OR 7 2.0

SH 4 6.0

SH 5 4.0

SH 3 2.0

CMP 1 2.1

CMP 0 2.1

AND 3 8.0

AND 4 6.0

AND 2 2.0

MEM 2 63.0

MEM 1 45.0

MEM 3 27.0

MEM 8 18.0

MEM 9 9.0

MEM 7 9.0

MEM 0 9.0

ADD 1 5.0

ADD 0 5.0

cost = 90.1

ALAP

Found schedule of length 10

n18 : [0:0]

n25 : [1:1]

n38 : [1:1]

n26 : [1:1]

n3 : [1:1]

n16 : [2:3]

n1 : [2:3]

n37 : [2:3]

n2 : [2:3]

n17 : [2:3]

n8 : [2:2]

n23 : [2:2]

n22 : [2:3]

n7 : [3:4]

n10 : [3:4]

n24 : [4:4]

n0 : [4:4]

n15 : [4:4]

n39 : [4:4]

n21 : [4:4]

n31 : [4:4]

n14 : [5:5]

n13 : [5:5]

n19 : [5:5]

n9 : [5:5]

n20 : [5:5]

n34 : [5:5]

n12 : [5:5]

n33 : [5:5]

n5 : [6:6]

n6 : [6:6]

n30 : [6:6]

n11 : [6:6]

n29 : [7:7]

n28 : [7:7]

n4 : [7:7]

n36 : [8:9]

n27 : [8:9]

n35 : [9:9]

n41 : [9:9]

n40 : [9:9]

n32 : [9:9]

Registered resources

OR 6 8.0

OR 7 4.0

SH 5 12.0

CMP 9 4.2

AND 4 12.0

AND 5 4.0

MEM 3 72.0

MEM 2 54.0

MEM 9 18.0

MEM 8 18.0

MEM 4 18.0

ADD 1 4.0

ADD 9 2.0

ADD 2 2.0

ADD 7 1.0

ADD 0 1.0

cost = 112.2

# SerpentEngine-makeWorkingKey-86-155

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64208:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-86-155.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-86-155.dot

n0 (Mem):

predecessors

n1 0

n1 (Or):

successors

n0 0

predecessors

n12 0

n11 0

n2 (Or):

successors

n10 0

predecessors

n3 0

n4 0

n3 (Or):

successors

n2 0

predecessors

n5 0

n6 0

n4 (Mem):

successors

n2 0

predecessors

n13 0

n5 (Mem):

successors

n3 0

predecessors

n14 0

n6 (Mem):

successors

n3 0

predecessors

n15 0

n7 (Or):

successors

n12 0

n11 0

predecessors

n8 0

n9 0

n8 (Or):

successors

n7 0

predecessors

n10 0

n9 (Sub):

successors

n7 0

n10 (Or):

successors

n8 0

predecessors

n16 0

n2 0

n20 (Cmp):

n12 (Shift):

successors

n1 0

predecessors

n17 0

n7 0

n11 (Shift):

successors

n1 0

predecessors

n7 0

n14 (Sub):

successors

n5 0

n13 (Sub):

successors

n4 0

n16 (Mem):

successors

n10 0

predecessors

n18 0

n15 (Sub):

successors

n6 0

n18 (Sub):

successors

n16 0

n17 (Sub):

successors

n12 0

n19 (Add):

Nr of Nodes : 21

ASAP

Found schedule of length 12

n14 : [0:0]

n13 : [0:0]

n15 : [0:0]

n18 : [0:0]

n17 : [0:0]

n19 : [0:0]

n9 : [0:0]

n20 : [0:0]

n16 : [1:2]

n4 : [1:2]

n5 : [1:2]

n6 : [1:2]

n3 : [3:3]

n2 : [4:4]

n10 : [5:5]

n8 : [6:6]

n7 : [7:7]

n12 : [8:8]

n11 : [8:8]

n1 : [9:9]

n0 : [10:11]

Registered resources

SH 8 4.0

OR 9 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

CMP 0 2.1

MEM 2 36.0

MEM 1 36.0

MEM 11 9.0

MEM 10 9.0

ADD 0 1.0

SUB 0 8.399999999999999

cost = 53.5

ALAP

Found schedule of length 12

n14 : [0:0]

n15 : [0:0]

n13 : [1:1]

n5 : [1:2]

n6 : [1:2]

n18 : [2:2]

n4 : [2:3]

n16 : [3:4]

n3 : [3:3]

n2 : [4:4]

n10 : [5:5]

n8 : [6:6]

n9 : [6:6]

n17 : [7:7]

n7 : [7:7]

n12 : [8:8]

n11 : [8:8]

n1 : [9:9]

n0 : [10:11]

n19 : [11:11]

n20 : [11:11]

Registered resources

SH 8 4.0

OR 9 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

MEM 2 27.0

MEM 3 18.0

MEM 1 18.0

MEM 11 9.0

MEM 10 9.0

MEM 4 9.0

CMP 11 2.1

ADD 11 1.0

SUB 0 2.8

SUB 7 1.4

SUB 6 1.4

SUB 2 1.4

SUB 1 1.4

cost = 38.9

# SerpentEngine-makeWorkingKey-86-225

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64222:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-86-225.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-86-225.dot

n0 (Or):

successors

n7 0

predecessors

n1 0

n2 0

n1 (Shift):

successors

n0 0

predecessors

n25 0

n2 (Shift):

successors

n0 0

predecessors

n25 0

n26 0

n3 (Or):

successors

n38 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n3 0

predecessors

n20 0

n31 0

n5 (Mem):

successors

n3 0

predecessors

n6 0

n6 (Sub):

successors

n5 0

n7 (Mem):

predecessors

n0 0

n8 0

n8 (Add):

successors

n14 0

n36 0

n13 0

n16 0

n39 0

n19 0

n7 0

n40 0

n30 (Shift):

successors

n29 0

predecessors

n37 0

n18 0

n9 (Or):

successors

n25 0

predecessors

n10 0

n10 (Or):

successors

n9 0

predecessors

n27 0

n15 0

n32 (Sub):

successors

n31 0

n31 (Mem):

successors

n4 0

predecessors

n32 0

n12 (Sub):

successors

n11 0

n34 (Or):

successors

n18 0

predecessors

n38 0

n11 (Mem):

successors

n38 0

predecessors

n12 0

n33 (Mem):

predecessors

n29 0

n14 (Sub):

successors

n15 0

predecessors

n8 0

n36 (Sub):

successors

n25 0

predecessors

n8 0

n13 (Sub):

successors

n28 0

predecessors

n8 0

n35 (Sub):

successors

n18 0

n16 (Sub):

successors

n23 0

predecessors

n8 0

n38 (Or):

successors

n34 0

predecessors

n3 0

n11 0

n15 (Mem):

successors

n10 0

predecessors

n14 0

n37 (Sub):

successors

n30 0

n18 (Or):

successors

n17 0

n30 0

predecessors

n35 0

n34 0

n17 (Shift):

successors

n29 0

predecessors

n18 0

n39 (Cmp):

predecessors

n8 0

n19 (Sub):

successors

n24 0

predecessors

n8 0

n41 (Cmp):

n40 (Add):

predecessors

n8 0

n21 (Sub):

successors

n20 0

n20 (Mem):

successors

n4 0

predecessors

n21 0

n23 (Mem):

successors

n22 0

predecessors

n16 0

n22 (Or):

successors

n27 0

predecessors

n24 0

n23 0

n25 (Or):

successors

n1 0

n2 0

predecessors

n36 0

n9 0

n24 (Mem):

successors

n22 0

predecessors

n19 0

n27 (Or):

successors

n10 0

predecessors

n28 0

n22 0

n26 (Sub):

successors

n2 0

n29 (Or):

successors

n33 0

predecessors

n17 0

n30 0

n28 (Mem):

successors

n27 0

predecessors

n13 0

Nr of Nodes : 42

ASAP

Found schedule of length 13

n35 : [0:0]

n37 : [0:0]

n26 : [0:0]

n6 : [0:0]

n8 : [0:0]

n41 : [0:0]

n32 : [0:0]

n21 : [0:0]

n12 : [0:0]

n14 : [1:1]

n36 : [1:1]

n13 : [1:1]

n16 : [1:1]

n39 : [1:1]

n5 : [1:2]

n19 : [1:1]

n40 : [1:1]

n31 : [1:2]

n20 : [1:2]

n11 : [1:2]

n24 : [2:3]

n15 : [2:3]

n28 : [2:3]

n23 : [2:3]

n4 : [3:3]

n3 : [4:4]

n22 : [4:4]

n38 : [5:5]

n27 : [5:5]

n10 : [6:6]

n34 : [6:6]

n18 : [7:7]

n9 : [7:7]

n25 : [8:8]

n17 : [8:8]

n30 : [8:8]

n1 : [9:9]

n2 : [9:9]

n29 : [9:9]

n0 : [10:10]

n33 : [10:11]

n7 : [11:12]

Registered resources

SH 9 4.0

SH 8 4.0

OR 7 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 3 2.0

CMP 1 2.1

CMP 0 2.1

MEM 2 72.0

MEM 3 36.0

MEM 1 36.0

MEM 11 18.0

MEM 12 9.0

MEM 10 9.0

ADD 1 1.0

ADD 0 1.0

SUB 0 9.799999999999999

SUB 1 7.0

cost = 92.89999999999999

ALAP

Found schedule of length 13

n8 : [0:0]

n16 : [1:1]

n19 : [1:1]

n21 : [1:1]

n32 : [1:1]

n13 : [2:2]

n24 : [2:3]

n6 : [2:2]

n20 : [2:3]

n31 : [2:3]

n23 : [2:3]

n14 : [3:3]

n28 : [3:4]

n5 : [3:4]

n12 : [3:3]

n15 : [4:5]

n4 : [4:4]

n11 : [4:5]

n22 : [4:4]

n27 : [5:5]

n3 : [5:5]

n38 : [6:6]

n10 : [6:6]

n36 : [7:7]

n35 : [7:7]

n9 : [7:7]

n34 : [7:7]

n25 : [8:8]

n26 : [8:8]

n37 : [8:8]

n18 : [8:8]

n1 : [9:9]

n2 : [9:9]

n17 : [9:9]

n30 : [9:9]

n0 : [10:10]

n29 : [10:10]

n7 : [11:12]

n33 : [11:12]

n39 : [12:12]

n41 : [12:12]

n40 : [12:12]

Registered resources

SH 9 8.0

OR 10 4.0

OR 8 4.0

OR 7 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

CMP 12 4.2

MEM 3 54.0

MEM 4 36.0

MEM 2 36.0

MEM 12 18.0

MEM 11 18.0

MEM 5 18.0

ADD 12 1.0

ADD 0 1.0

SUB 1 5.6

SUB 8 2.8

SUB 7 2.8

SUB 3 2.8

SUB 2 2.8

cost = 76.8

# SerpentEngine-makeWorkingKey-150-172

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64235:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-150-172.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-150-172.dot

n0 (Mem):

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n2 0

n2 (Add):

successors

n1 0

n3 (Add):

n4 (Cmp):

Nr of Nodes : 5

ASAP

Found schedule of length 5

n2 : [0:0]

n3 : [0:0]

n4 : [0:0]

n1 : [1:2]

n0 : [3:4]

Registered resources

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

CMP 0 2.1

ADD 0 2.0

cost = 13.1

ALAP

Found schedule of length 5

n2 : [0:0]

n1 : [1:2]

n0 : [3:4]

n3 : [4:4]

n4 : [4:4]

Registered resources

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

CMP 4 2.1

ADD 4 1.0

ADD 0 1.0

cost = 12.1

# SerpentEngine-makeWorkingKey-150-195

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64251:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-150-195.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-150-195.dot

n0 (Mem):

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n7 0

n2 (Cmp):

predecessors

n3 0

n3 (Add):

successors

n2 0

n4 0

n6 0

n8 0

n4 (Mem):

predecessors

n3 0

n5 0

n5 (Mem):

successors

n4 0

predecessors

n6 0

n6 (Add):

successors

n5 0

predecessors

n3 0

n7 (Add):

successors

n1 0

n8 (Add):

predecessors

n3 0

n9 (Cmp):

Nr of Nodes : 10

ASAP

Found schedule of length 6

n3 : [0:0]

n7 : [0:0]

n9 : [0:0]

n1 : [1:2]

n2 : [1:1]

n6 : [1:1]

n8 : [1:1]

n5 : [2:3]

n0 : [3:4]

n4 : [4:5]

Registered resources

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 5 9.0

MEM 1 9.0

CMP 1 2.1

CMP 0 2.1

ADD 1 2.0

ADD 0 2.0

cost = 22.1

ALAP

Found schedule of length 6

n3 : [0:0]

n6 : [1:1]

n7 : [1:1]

n1 : [2:3]

n5 : [2:3]

n0 : [4:5]

n4 : [4:5]

n2 : [5:5]

n8 : [5:5]

n9 : [5:5]

Registered resources

MEM 5 18.0

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

CMP 5 4.2

ADD 1 2.0

ADD 5 1.0

ADD 0 1.0

cost = 24.2

# SerpentEngine-makeWorkingKey-179-250

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=61230:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-179-250.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-179-250.dot

n0 (Mem):

successors

n4 0

predecessors

n1 0

n1 (Sub):

successors

n0 0

n2 (Mem):

successors

n5 0

predecessors

n3 0

n3 (Sub):

successors

n2 0

n4 (Or):

successors

n14 0

predecessors

n0 0

n5 0

n5 (Or):

successors

n4 0

predecessors

n2 0

n10 0

n6 (Or):

successors

n15 0

predecessors

n7 0

n8 0

n7 (Shift):

successors

n6 0

predecessors

n9 0

n8 (Shift):

successors

n6 0

predecessors

n17 0

n9 0

n9 (Or):

successors

n7 0

n8 0

predecessors

n14 0

n10 (Or):

successors

n5 0

predecessors

n12 0

n11 0

n12 (Mem):

successors

n10 0

predecessors

n16 0

n11 (Mem):

successors

n10 0

predecessors

n13 0

n14 (Or):

successors

n9 0

predecessors

n4 0

n13 (Sub):

successors

n11 0

n16 (Sub):

successors

n12 0

n15 (Mem):

predecessors

n6 0

n18 (Add):

n17 (Sub):

successors

n8 0

n19 (Cmp):

Nr of Nodes : 20

ASAP

Found schedule of length 12

n13 : [0:0]

n16 : [0:0]

n1 : [0:0]

n18 : [0:0]

n3 : [0:0]

n17 : [0:0]

n19 : [0:0]

n0 : [1:2]

n2 : [1:2]

n12 : [1:2]

n11 : [1:2]

n10 : [3:3]

n5 : [4:4]

n4 : [5:5]

n14 : [6:6]

n9 : [7:7]

n7 : [8:8]

n8 : [8:8]

n6 : [9:9]

n15 : [10:11]

Registered resources

SH 8 4.0

OR 9 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

CMP 0 2.1

MEM 2 36.0

MEM 1 36.0

MEM 11 9.0

MEM 10 9.0

ADD 0 1.0

SUB 0 7.0

cost = 52.1

ALAP

Found schedule of length 12

n13 : [0:0]

n16 : [0:0]

n3 : [1:1]

n12 : [1:2]

n11 : [1:2]

n1 : [2:2]

n2 : [2:3]

n0 : [3:4]

n10 : [3:3]

n5 : [4:4]

n4 : [5:5]

n14 : [6:6]

n17 : [7:7]

n9 : [7:7]

n7 : [8:8]

n8 : [8:8]

n6 : [9:9]

n15 : [10:11]

n18 : [11:11]

n19 : [11:11]

Registered resources

SH 8 4.0

OR 9 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

MEM 2 27.0

MEM 3 18.0

MEM 1 18.0

MEM 11 9.0

MEM 10 9.0

MEM 4 9.0

CMP 11 2.1

ADD 11 1.0

SUB 0 2.8

SUB 7 1.4

SUB 2 1.4

SUB 1 1.4

cost = 38.9

# SerpentEngine-makeWorkingKey-179-322

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=61237:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-179-322.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-179-322.dot

n0 (Shift):

successors

n19 0

predecessors

n1 0

n1 (Or):

successors

n0 0

n6 0

predecessors

n2 0

n2 (Or):

successors

n1 0

predecessors

n30 0

n3 (Mem):

predecessors

n4 0

n5 0

n4 (Add):

successors

n36 0

n13 0

n38 0

n15 0

n29 0

n3 0

n12 0

n23 0

n5 (Or):

successors

n3 0

predecessors

n8 0

n9 0

n6 (Shift):

successors

n19 0

predecessors

n1 0

n7 0

n7 (Sub):

successors

n6 0

n8 (Shift):

successors

n5 0

predecessors

n13 0

n30 (Or):

successors

n2 0

predecessors

n16 0

n37 0

n9 (Shift):

successors

n5 0

predecessors

n13 0

n31 0

n10 (Mem):

successors

n37 0

predecessors

n11 0

n32 (Mem):

successors

n35 0

predecessors

n33 0

n31 (Sub):

successors

n9 0

n12 (Add):

predecessors

n4 0

n34 (Or):

successors

n24 0

predecessors

n14 0

n20 0

n11 (Sub):

successors

n10 0

n33 (Sub):

successors

n32 0

n14 (Mem):

successors

n34 0

predecessors

n15 0

n36 (Sub):

successors

n27 0

predecessors

n4 0

n13 (Or):

successors

n8 0

n9 0

predecessors

n24 0

n4 0

n35 (Or):

successors

n37 0

predecessors

n25 0

n32 0

n16 (Mem):

successors

n30 0

predecessors

n17 0

n38 (Cmp):

predecessors

n4 0

n15 (Sub):

successors

n14 0

predecessors

n4 0

n37 (Or):

successors

n30 0

predecessors

n35 0

n10 0

n18 (Mem):

predecessors

n19 0

n17 (Sub):

successors

n16 0

n39 (Cmp):

n19 (Or):

successors

n18 0

predecessors

n0 0

n6 0

n21 (Or):

successors

n20 0

predecessors

n27 0

n28 0

n20 (Or):

successors

n34 0

predecessors

n21 0

n22 0

n23 (Sub):

successors

n22 0

predecessors

n4 0

n22 (Mem):

successors

n20 0

predecessors

n23 0

n25 (Mem):

successors

n35 0

predecessors

n26 0

n24 (Or):

successors

n13 0

predecessors

n34 0

n27 (Mem):

successors

n21 0

predecessors

n36 0

n26 (Sub):

successors

n25 0

n29 (Sub):

successors

n28 0

predecessors

n4 0

n28 (Mem):

successors

n21 0

predecessors

n29 0

Nr of Nodes : 40

ASAP

Found schedule of length 13

n26 : [0:0]

n17 : [0:0]

n39 : [0:0]

n4 : [0:0]

n7 : [0:0]

n31 : [0:0]

n11 : [0:0]

n33 : [0:0]

n25 : [1:2]

n36 : [1:1]

n16 : [1:2]

n38 : [1:1]

n15 : [1:1]

n29 : [1:1]

n10 : [1:2]

n32 : [1:2]

n12 : [1:1]

n23 : [1:1]

n14 : [2:3]

n27 : [2:3]

n28 : [2:3]

n22 : [2:3]

n35 : [3:3]

n37 : [4:4]

n21 : [4:4]

n30 : [5:5]

n20 : [5:5]

n2 : [6:6]

n34 : [6:6]

n24 : [7:7]

n1 : [7:7]

n13 : [8:8]

n0 : [8:8]

n6 : [8:8]

n19 : [9:9]

n8 : [9:9]

n9 : [9:9]

n18 : [10:11]

n5 : [10:10]

n3 : [11:12]

Registered resources

SH 9 4.0

SH 8 4.0

OR 7 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 3 2.0

ADD 1 1.0

ADD 0 1.0

MEM 2 72.0

MEM 3 36.0

MEM 1 36.0

MEM 11 18.0

MEM 12 9.0

MEM 10 9.0

CMP 1 2.1

CMP 0 2.1

SUB 0 8.399999999999999

SUB 1 5.6

cost = 91.5

ALAP

Found schedule of length 13

n4 : [0:0]

n36 : [1:1]

n26 : [1:1]

n29 : [1:1]

n33 : [1:1]

n25 : [2:3]

n27 : [2:3]

n28 : [2:3]

n32 : [2:3]

n23 : [2:2]

n11 : [2:2]

n15 : [3:3]

n17 : [3:3]

n10 : [3:4]

n22 : [3:4]

n14 : [4:5]

n35 : [4:4]

n16 : [4:5]

n21 : [4:4]

n37 : [5:5]

n20 : [5:5]

n30 : [6:6]

n34 : [6:6]

n24 : [7:7]

n2 : [7:7]

n13 : [8:8]

n1 : [8:8]

n7 : [8:8]

n31 : [8:8]

n0 : [9:9]

n6 : [9:9]

n8 : [9:9]

n9 : [9:9]

n19 : [10:10]

n5 : [10:10]

n18 : [11:12]

n3 : [11:12]

n38 : [12:12]

n39 : [12:12]

n12 : [12:12]

Registered resources

SH 9 8.0

OR 10 4.0

OR 8 4.0

OR 7 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

MEM 3 54.0

MEM 4 36.0

MEM 2 36.0

MEM 12 18.0

MEM 11 18.0

MEM 5 18.0

ADD 12 1.0

ADD 0 1.0

CMP 12 4.2

SUB 1 5.6

SUB 8 2.8

SUB 3 2.8

SUB 2 2.8

cost = 76.8

# SerpentEngine-makeWorkingKey-245-1724

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=61246:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-245-1724.dot

Scheduling scheduler-framework-master/graphs/SerpentEngine-makeWorkingKey-245-1724.dot

n90 (And):

successors

n142 0

predecessors

n17 0

n91 0

n92 (And):

successors

n98 0

predecessors

n74 0

n84 0

n91 (Mem):

successors

n197 0

n90 0

predecessors

n133 0

n94 (Add):

successors

n93 0

n93 (Mem):

successors

n278 0

n195 0

predecessors

n94 0

n96 (Mem):

successors

n95 0

n140 0

predecessors

n268 0

n95 (Or):

successors

n152 0

n85 0

n98 0

predecessors

n96 0

n97 0

n98 (Or):

successors

n77 0

predecessors

n92 0

n95 0

n97 (Mem):

successors

n152 0

n95 0

predecessors

n183 0

n99 (Or):

successors

n163 0

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predecessors

n194 0

n195 0

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successors

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predecessors

n240 0

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successors

n8 0

predecessors

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successors

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n215 0

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n159 0

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successors

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successors

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predecessors

n218 0

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successors

n217 0

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successors

n214 0

n216 (Or):

successors

n202 0

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predecessors

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successors

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predecessors

n178 0

n202 (Or):

successors

n188 0

predecessors

n216 0

n34 0

n203 (Or):

successors

n234 0

n209 0

predecessors

n103 0

n150 0

n200 (And):

successors

n133 0

predecessors

n57 0

n158 0

n201 (Add):

successors

n57 0

n206 (Mem):

successors

n179 0

n204 0

predecessors

n186 0

n207 (Mem):

successors

n56 0

n66 0

predecessors

n208 0

n204 (Mem):

predecessors

n206 0

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successors

n204 0

n208 (Add):

successors

n207 0

n209 (Or):

successors

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predecessors

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successors

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predecessors

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predecessors

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successors

n110 0

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successors

n231 0

n230 (Add):

successors

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successors

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successors

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successors

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predecessors

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successors

n235 0

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successors

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predecessors

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successors

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successors

n17 0

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predecessors

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n239 (Or):

successors

n233 0

predecessors

n234 0

n149 0

n119 (Or):

successors

n193 0

predecessors

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successors

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n81 0

predecessors

n230 0

n237 (Add):

successors

n185 0

n117 (Add):

successors

n101 0

n238 (Or):

successors

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n199 0

n168 0

n220 (Or):

successors

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n57 0

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successors

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successors

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successors

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n16 (Or):

successors

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n17 0

n131 (Or):

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n49 0

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successors

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predecessors

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predecessors

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successors

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n102 0

n135 (Add):

successors

n134 0

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successors

n255 0

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successors

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successors

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successors

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predecessors

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predecessors

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n20 (Or):

successors

n18 0

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predecessors

n57 0

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n250 (Add):

successors

n249 0

n23 (Mem):

successors

n4 0

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predecessors

n86 0

n22 (Add):

successors

n21 0

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successors

n24 0

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successors

n30 0

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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n275 (Add):

successors

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successors

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predecessors

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successors

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predecessors

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successors

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successors

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predecessors

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n276 0

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successors

n156 0

n278 (Or):

successors

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successors

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successors

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successors

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predecessors

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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predecessors

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successors

n163 0

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predecessors

n89 0

n194 (Mem):

successors

n54 0

n99 0

predecessors

n275 0

n86 (Or):

successors

n23 0

predecessors

n87 0

n53 0

n195 (Or):

successors

n99 0

predecessors

n93 0

n89 (Add):

successors

n87 0

n192 (Or):

successors

n147 0

predecessors

n188 0

n88 (And):

successors

n199 0

n144 0

n109 0

predecessors

n14 0

n31 0

n193 (Mem):

successors

n224 0

predecessors

n119 0

n187 (And):

successors

n212 0

predecessors

n188 0

n77 0

n188 (Or):

successors

n187 0

n192 0

predecessors

n202 0

n84 0

n185 (Mem):

successors

n243 0

n1 0

n170 0

predecessors

n237 0

n186 (Or):

successors

n206 0

predecessors

n169 0

n81 0

n189 (Mem):

predecessors

n190 0

n191 0

Nr of Nodes : 285

ASAP

Found schedule of length 23

n94 : [0:0]

n7 : [0:0]

n10 : [0:0]

n183 : [0:0]

n261 : [0:0]

n181 : [0:0]

n254 : [0:0]

n177 : [0:0]

n252 : [0:0]

n175 : [0:0]

n137 : [0:0]

n211 : [0:0]

n135 : [0:0]

n256 : [0:0]

n218 : [0:0]

n215 : [0:0]

n259 : [0:0]

n63 : [0:0]

n65 : [0:0]

n250 : [0:0]

n173 : [0:0]

n22 : [0:0]

n121 : [0:0]

n242 : [0:0]

n165 : [0:0]

n166 : [0:0]

n284 : [0:0]

n246 : [0:0]

n126 : [0:0]

n123 : [0:0]

n201 : [0:0]

n205 : [0:0]

n208 : [0:0]

n282 : [0:0]

n283 : [0:0]

n75 : [0:0]

n33 : [0:0]

n281 : [0:0]

n36 : [0:0]

n154 : [0:0]

n275 : [0:0]

n198 : [0:0]

n111 : [0:0]

n232 : [0:0]

n273 : [0:0]

n230 : [0:0]

n279 : [0:0]

n236 : [0:0]

n277 : [0:0]

n157 : [0:0]

n237 : [0:0]

n117 : [0:0]

n190 : [0:0]

n42 : [0:0]

n89 : [0:0]

n270 : [0:0]

n221 : [0:0]

n265 : [0:0]

n262 : [0:0]

n263 : [0:0]

n268 : [0:0]

n225 : [0:0]

n102 : [0:0]

n223 : [0:0]

n267 : [0:0]

n226 : [0:0]

n70 : [1:2]

n93 : [1:2]

n180 : [1:2]

n30 : [1:2]

n74 : [1:2]

n96 : [1:2]

n97 : [1:2]

n31 : [1:2]

n182 : [1:2]

n110 : [1:2]

n57 : [1:2]

n235 : [1:2]

n115 : [1:2]

n159 : [1:2]

n214 : [1:2]

n112 : [1:2]

n19 : [1:2]

n217 : [1:2]

n116 : [1:2]

n41 : [1:2]

n62 : [1:2]

n194 : [1:2]

n87 : [1:2]

n64 : [1:2]

n25 : [1:2]

n185 : [1:2]

n125 : [1:2]

n247 : [1:2]

n101 : [1:2]

n207 : [1:2]

n229 : [1:2]

n127 : [1:2]

n1 : [3:3]

n81 : [3:3]

n95 : [3:3]

n40 : [3:3]

n161 : [3:3]

n195 : [3:3]

n20 : [3:3]

n170 : [3:3]

n56 : [3:3]

n66 : [3:3]

n243 : [3:3]

n13 : [3:3]

n100 : [3:3]

n29 : [3:3]

n114 : [3:3]

n39 : [3:3]

n113 : [3:3]

n118 : [3:3]

n80 : [4:4]

n85 : [4:4]

n52 : [4:4]

n73 : [4:4]

n162 : [4:4]

n99 : [4:4]

n55 : [4:4]

n171 : [4:4]

n44 : [4:4]

n152 : [4:4]

n38 : [4:4]

n26 : [4:4]

n274 : [4:4]

n18 : [4:4]

n17 : [4:4]

n228 : [4:4]

n107 : [4:4]

n47 : [5:5]

n79 : [5:5]

n46 : [5:5]

n24 : [5:5]

n163 : [5:5]

n169 : [5:5]

n278 : [5:5]

n216 : [5:5]

n106 : [5:5]

n150 : [5:5]

n160 : [5:5]

n82 : [6:6]

n84 : [6:6]

n51 : [6:7]

n54 : [6:6]

n53 : [6:6]

n45 : [6:6]

n14 : [6:7]

n220 : [6:6]

n68 : [6:6]

n16 : [6:6]

n59 : [6:6]

n186 : [6:6]

n28 : [6:6]

n108 : [6:6]

n105 : [6:6]

n149 : [6:6]

n2 : [7:7]

n92 : [7:7]

n5 : [7:7]

n83 : [7:7]

n72 : [7:7]

n86 : [7:7]

n67 : [7:8]

n58 : [7:7]

n27 : [7:8]

n15 : [7:7]

n158 : [7:8]

n206 : [7:8]

n227 : [7:7]

n0 : [8:8]

n50 : [8:8]

n98 : [8:8]

n140 : [8:8]

n151 : [8:9]

n12 : [8:8]

n23 : [8:9]

n88 : [8:8]

n69 : [8:8]

n174 : [8:9]

n196 : [8:8]

n222 : [8:9]

n266 : [8:9]

n260 : [9:10]

n34 : [9:10]

n77 : [9:10]

n132 : [9:9]

n276 : [9:10]

n199 : [9:9]

n144 : [9:9]

n49 : [9:9]

n251 : [9:10]

n104 : [9:9]

n156 : [9:10]

n200 : [9:9]

n168 : [9:9]

n204 : [9:10]

n109 : [9:9]

n4 : [10:10]

n21 : [10:11]

n264 : [10:11]

n133 : [10:10]

n131 : [10:10]

n48 : [10:10]

n257 : [10:10]

n103 : [10:10]

n148 : [10:10]

n167 : [10:11]

n245 : [10:11]

n238 : [10:10]

n3 : [11:11]

n91 : [11:12]

n71 : [11:11]

n191 : [11:12]

n32 : [11:12]

n184 : [11:11]

n37 : [11:12]

n202 : [11:11]

n258 : [11:12]

n203 : [11:11]

n244 : [11:12]

n179 : [11:11]

n248 : [11:11]

n249 : [11:12]

n128 : [11:12]

n61 : [12:13]

n280 : [12:13]

n188 : [12:12]

n240 : [12:12]

n120 : [12:12]

n213 : [12:12]

n145 : [12:12]

n178 : [12:12]

n234 : [12:12]

n139 : [12:12]

n90 : [13:13]

n8 : [13:14]

n192 : [13:13]

n143 : [13:13]

n187 : [13:13]

n35 : [13:14]

n210 : [13:14]

n130 : [13:13]

n197 : [13:14]

n164 : [13:14]

n189 : [13:14]

n255 : [13:14]

n239 : [13:13]

n119 : [13:13]

n138 : [13:14]

n219 : [13:14]

n60 : [14:14]

n11 : [14:15]

n193 : [14:15]

n142 : [14:14]

n136 : [14:15]

n233 : [14:15]

n212 : [14:14]

n6 : [15:16]

n271 : [15:16]

n43 : [15:15]

n272 : [15:16]

n78 : [15:16]

n253 : [15:16]

n141 : [15:16]

n241 : [15:16]

n209 : [15:15]

n231 : [16:17]

n155 : [16:17]

n224 : [16:17]

n129 : [16:16]

n9 : [16:17]

n176 : [17:18]

n269 : [17:18]

n134 : [17:18]

n124 : [17:18]

n76 : [17:17]

n153 : [18:19]

n147 : [18:18]

n122 : [19:20]

n146 : [19:20]

n172 : [21:22]

Registered resources

AND 7 10.0

AND 4 10.0

AND 11 8.0

AND 9 6.0

AND 13 4.0

AND 12 4.0

AND 3 4.0

AND 17 2.0

AND 8 2.0

MEM 2 288.0

MEM 1 288.0

MEM 14 117.0

MEM 11 108.0

MEM 9 108.0

MEM 16 99.0

MEM 15 99.0

MEM 13 99.0

MEM 10 99.0

MEM 12 90.0

MEM 8 81.0

MEM 17 72.0

MEM 7 54.0

MEM 18 45.0

MEM 19 27.0

MEM 20 18.0

MEM 6 18.0

MEM 22 9.0

MEM 21 9.0

OR 3 32.0

OR 6 28.0

OR 4 24.0

OR 5 22.0

OR 10 16.0

OR 8 14.0

OR 12 12.0

OR 13 10.0

OR 9 10.0

OR 7 8.0

OR 14 6.0

OR 11 6.0

OR 15 4.0

OR 18 2.0

OR 16 2.0

CMP 0 2.1

ADD 0 65.0

cost = 397.1

ALAP

Found schedule of length 23

n268 : [0:0]

n183 : [0:0]

n96 : [1:2]

n97 : [1:2]

n63 : [2:2]

n117 : [2:2]

n166 : [3:3]

n236 : [3:3]

n101 : [3:4]

n215 : [3:3]

n62 : [3:4]

n95 : [3:3]

n65 : [3:3]

n75 : [3:3]

n42 : [3:3]

n152 : [4:4]

n235 : [4:5]

n214 : [4:5]

n70 : [4:5]

n201 : [4:4]

n102 : [4:4]

n94 : [4:4]

n74 : [4:5]

n41 : [4:5]

n64 : [4:5]

n93 : [5:6]

n282 : [5:5]

n121 : [5:5]

n275 : [5:5]

n57 : [5:6]

n100 : [5:5]

n263 : [5:5]

n252 : [5:5]

n230 : [5:5]

n279 : [5:5]

n19 : [5:6]

n226 : [5:5]

n237 : [5:5]

n216 : [5:5]

n30 : [6:7]

n85 : [6:6]

n84 : [6:6]

n40 : [6:6]

n194 : [6:7]

n161 : [6:6]

n31 : [6:7]

n162 : [6:6]

n182 : [6:7]

n262 : [6:6]

n185 : [6:7]

n247 : [6:7]

n126 : [6:6]

n115 : [6:7]

n39 : [6:6]

n211 : [6:6]

n267 : [6:6]

n127 : [6:7]

n116 : [6:7]

n83 : [7:7]

n195 : [7:7]

n20 : [7:7]

n181 : [7:7]

n160 : [7:7]

n38 : [7:7]

n125 : [7:8]

n159 : [7:8]

n112 : [7:8]

n229 : [7:8]

n1 : [8:8]

n180 : [8:9]

n51 : [8:9]

n150 : [8:8]

n140 : [8:8]

n89 : [8:8]

n99 : [8:8]

n13 : [8:8]

n243 : [8:8]

n29 : [8:8]

n18 : [8:8]

n113 : [8:8]

n118 : [8:8]

n218 : [8:8]

n208 : [8:8]

n92 : [9:9]

n80 : [9:9]

n73 : [9:9]

n87 : [9:10]

n34 : [9:10]

n170 : [9:9]

n171 : [9:9]

n68 : [9:9]

n111 : [9:9]

n278 : [9:9]

n217 : [9:10]

n107 : [9:9]

n207 : [9:10]

n106 : [9:9]

n98 : [10:10]

n53 : [10:10]

n67 : [10:11]

n110 : [10:11]

n69 : [10:10]

n79 : [10:10]

n221 : [10:10]

n274 : [10:10]

n169 : [10:10]

n105 : [10:10]

n81 : [11:11]

n82 : [11:11]

n52 : [11:11]

n86 : [11:11]

n56 : [11:11]

n77 : [11:12]

n14 : [11:12]

n25 : [11:12]

n132 : [11:11]

n158 : [11:12]

n202 : [11:11]

n2 : [12:12]

n50 : [12:12]

n23 : [12:13]

n188 : [12:12]

n163 : [12:12]

n16 : [12:12]

n26 : [12:12]

n148 : [12:12]

n17 : [12:12]

n104 : [12:12]

n0 : [13:13]

n54 : [13:13]

n184 : [13:13]

n12 : [13:13]

n66 : [13:13]

n88 : [13:13]

n187 : [13:13]

n24 : [13:13]

n15 : [13:13]

n186 : [13:13]

n103 : [13:13]

n200 : [13:13]

n4 : [14:14]

n72 : [14:14]

n55 : [14:14]

n133 : [14:14]

n251 : [14:15]

n131 : [14:14]

n213 : [14:14]

n28 : [14:14]

n212 : [14:14]

n228 : [14:14]

n206 : [14:15]

n248 : [14:14]

n109 : [14:14]

n46 : [15:15]

n240 : [15:15]

n27 : [15:16]

n196 : [15:15]

n37 : [15:16]

n167 : [15:16]

n91 : [15:16]

n71 : [15:15]

n8 : [15:16]

n78 : [15:16]

n5 : [16:16]

n61 : [16:17]

n44 : [16:16]

n210 : [16:17]

n203 : [16:16]

n179 : [16:16]

n168 : [16:16]

n108 : [16:16]

n90 : [17:17]

n3 : [17:17]

n76 : [17:17]

n43 : [17:17]

n45 : [17:17]

n192 : [17:17]

n220 : [17:17]

n47 : [17:17]

n144 : [17:17]

n199 : [17:17]

n49 : [17:17]

n130 : [17:17]

n59 : [17:17]

n120 : [17:17]

n114 : [17:17]

n145 : [17:17]

n234 : [17:17]

n149 : [17:17]

n60 : [18:18]

n143 : [18:18]

n58 : [18:18]

n142 : [18:18]

n48 : [18:18]

n257 : [18:18]

n147 : [18:18]

n178 : [18:18]

n239 : [18:18]

n129 : [18:18]

n119 : [18:18]

n139 : [18:18]

n238 : [18:18]

n227 : [18:18]

n209 : [18:18]

n191 : [19:20]

n271 : [19:20]

n151 : [19:20]

n11 : [19:20]

n193 : [19:20]

n155 : [19:20]

n141 : [19:20]

n233 : [19:20]

n244 : [19:20]

n266 : [19:20]

n146 : [19:20]

n124 : [19:20]

n138 : [19:20]

n128 : [19:20]

n219 : [19:20]

n7 : [20:20]

n10 : [20:20]

n261 : [20:20]

n33 : [20:20]

n281 : [20:20]

n36 : [20:20]

n154 : [20:20]

n198 : [20:20]

n232 : [20:20]

n254 : [20:20]

n177 : [20:20]

n273 : [20:20]

n175 : [20:20]

n137 : [20:20]

n277 : [20:20]

n135 : [20:20]

n256 : [20:20]

n157 : [20:20]

n259 : [20:20]

n190 : [20:20]

n173 : [20:20]

n250 : [20:20]

n22 : [20:20]

n270 : [20:20]

n242 : [20:20]

n165 : [20:20]

n265 : [20:20]

n246 : [20:20]

n225 : [20:20]

n123 : [20:20]

n223 : [20:20]

n205 : [20:20]

n6 : [21:22]

n9 : [21:22]

n260 : [21:22]

n32 : [21:22]

n280 : [21:22]

n231 : [21:22]

n253 : [21:22]

n176 : [21:22]

n35 : [21:22]

n276 : [21:22]

n174 : [21:22]

n153 : [21:22]

n197 : [21:22]

n136 : [21:22]

n258 : [21:22]

n134 : [21:22]

n255 : [21:22]

n156 : [21:22]

n21 : [21:22]

n172 : [21:22]

n272 : [21:22]

n264 : [21:22]

n122 : [21:22]

n241 : [21:22]

n164 : [21:22]

n224 : [21:22]

n269 : [21:22]

n222 : [21:22]

n189 : [21:22]

n245 : [21:22]

n204 : [21:22]

n249 : [21:22]

n283 : [22:22]

n284 : [22:22]

Registered resources

AND 17 12.0

AND 13 12.0

AND 14 6.0

AND 9 6.0

AND 16 2.0

AND 12 2.0

AND 11 2.0

AND 8 2.0

AND 7 2.0

AND 6 2.0

AND 4 2.0

MEM 22 288.0

MEM 21 288.0

MEM 20 135.0

MEM 19 135.0

MEM 7 117.0

MEM 6 108.0

MEM 5 81.0

MEM 16 72.0

MEM 15 72.0

MEM 4 72.0

MEM 11 54.0

MEM 10 54.0

MEM 9 54.0

MEM 8 54.0

MEM 12 45.0

MEM 17 18.0

MEM 14 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 13 9.0

OR 18 30.0

OR 17 24.0

OR 8 18.0

OR 14 16.0

OR 12 16.0

OR 10 14.0

OR 13 12.0

OR 11 12.0

OR 9 12.0

OR 16 10.0

OR 6 10.0

OR 15 8.0

OR 7 8.0

OR 5 4.0

OR 3 2.0

CMP 22 2.1

ADD 20 32.0

ADD 5 9.0

ADD 3 6.0

ADD 6 4.0

ADD 8 3.0

ADD 4 3.0

ADD 2 2.0

ADD 0 2.0

ADD 22 1.0

ADD 10 1.0

ADD 9 1.0

ADD 7 1.0

cost = 364.1

# SHA1Digest-processBlock-17-67

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=56809:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA1Digest-processBlock-17-67.dot

Scheduling scheduler-framework-master/graphs/SHA1Digest-processBlock-17-67.dot

n0 (Shift):

successors

n9 0

predecessors

n1 0

n1 (Or):

successors

n0 0

n5 0

predecessors

n13 0

n2 0

n2 (Or):

successors

n1 0

predecessors

n3 0

n4 0

n3 (Or):

successors

n2 0

predecessors

n6 0

n11 0

n4 (Mem):

successors

n2 0

predecessors

n10 0

n5 (Shift):

successors

n9 0

predecessors

n1 0

n6 (Mem):

successors

n3 0

predecessors

n7 0

n7 (Sub):

successors

n6 0

n8 (Mem):

predecessors

n9 0

n9 (Or):

successors

n8 0

predecessors

n0 0

n5 0

n10 (Sub):

successors

n4 0

n12 (Sub):

successors

n11 0

n11 (Mem):

successors

n3 0

predecessors

n12 0

n14 (Sub):

successors

n13 0

n13 (Mem):

successors

n1 0

predecessors

n14 0

n16 (Cmp):

n15 (Add):

Nr of Nodes : 17

ASAP

Found schedule of length 10

n14 : [0:0]

n16 : [0:0]

n15 : [0:0]

n7 : [0:0]

n10 : [0:0]

n12 : [0:0]

n13 : [1:2]

n4 : [1:2]

n6 : [1:2]

n11 : [1:2]

n3 : [3:3]

n2 : [4:4]

n1 : [5:5]

n0 : [6:6]

n5 : [6:6]

n9 : [7:7]

n8 : [8:9]

Registered resources

SH 6 4.0

OR 7 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

ADD 0 1.0

MEM 2 36.0

MEM 1 36.0

MEM 9 9.0

MEM 8 9.0

CMP 0 2.1

SUB 0 5.6

cost = 50.7

ALAP

Found schedule of length 10

n7 : [0:0]

n12 : [0:0]

n6 : [1:2]

n10 : [1:1]

n11 : [1:2]

n14 : [2:2]

n4 : [2:3]

n13 : [3:4]

n3 : [3:3]

n2 : [4:4]

n1 : [5:5]

n0 : [6:6]

n5 : [6:6]

n9 : [7:7]

n8 : [8:9]

n16 : [9:9]

n15 : [9:9]

Registered resources

SH 6 4.0

OR 7 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

ADD 9 1.0

MEM 2 27.0

MEM 3 18.0

MEM 1 18.0

MEM 9 9.0

MEM 8 9.0

MEM 4 9.0

CMP 9 2.1

SUB 0 2.8

SUB 2 1.4

SUB 1 1.4

cost = 38.9

# SHA1Digest-processBlock-105-486

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=56823:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA1Digest-processBlock-105-486.dot

Scheduling scheduler-framework-master/graphs/SHA1Digest-processBlock-105-486.dot

n0 (Shift):

successors

n63 0

predecessors

n1 0

n1 (Add):

successors

n25 0

n0 0

predecessors

n9 0

n55 0

n2 (And):

successors

n59 0

predecessors

n3 0

n90 (Add):

n3 (Or):

successors

n2 0

n4 (Shift):

successors

n30 0

predecessors

n5 0

n6 0

n5 (Add):

successors

n16 0

n37 0

n17 0

n4 0

n74 0

n62 0

predecessors

n47 0

n46 0

n91 (Cmp):

n6 (Sub):

successors

n4 0

n50 (Sub):

successors

n48 0

n7 (Add):

successors

n19 0

predecessors

n8 0

n8 (Mem):

successors

n7 0

predecessors

n33 0

n52 (Or):

successors

n70 0

n60 0

n55 0

predecessors

n54 0

n53 0

n9 (Add):

successors

n1 0

predecessors

n10 0

n11 0

n51 (Shift):

successors

n10 0

predecessors

n49 0

n10 (Or):

successors

n9 0

predecessors

n48 0

n51 0

n54 (Shift):

successors

n52 0

predecessors

n65 0

n53 (Shift):

successors

n52 0

n12 (Add):

successors

n36 0

n27 0

n72 0

n83 0

n76 0

n88 0

predecessors

n14 0

n13 0

n56 (Add):

successors

n13 0

predecessors

n85 0

n11 (Or):

successors

n9 0

predecessors

n61 0

n74 0

n55 (Add):

successors

n1 0

predecessors

n52 0

n43 0

n14 (Add):

successors

n12 0

predecessors

n21 0

n66 0

n58 (Shift):

successors

n57 0

n13 (Add):

successors

n12 0

predecessors

n56 0

n57 (Or):

successors

n19 0

n61 0

n76 0

predecessors

n58 0

n41 0

n16 (Shift):

successors

n15 0

predecessors

n5 0

n15 (Or):

successors

n73 0

predecessors

n16 0

n17 0

n59 (Or):

successors

n47 0

predecessors

n2 0

n60 0

n18 (Add):

predecessors

n19 0

n20 0

n17 (Shift):

successors

n15 0

predecessors

n5 0

n75 0

n19 (Add):

successors

n18 0

predecessors

n57 0

n7 0

n61 (And):

successors

n11 0

predecessors

n57 0

n62 0

n60 (And):

successors

n59 0

predecessors

n52 0

n63 (Or):

successors

n20 0

predecessors

n25 0

n0 0

n62 (Or):

successors

n61 0

predecessors

n5 0

n21 (Or):

successors

n14 0

predecessors

n23 0

n22 0

n65 (Sub):

successors

n54 0

n20 (Add):

successors

n18 0

predecessors

n63 0

n64 0

n64 (Or):

successors

n20 0

predecessors

n38 0

n73 0

n23 (And):

successors

n21 0

predecessors

n24 0

n67 (Shift):

successors

n66 0

n22 (And):

successors

n21 0

n66 (Or):

successors

n14 0

predecessors

n68 0

n67 0

n25 (Shift):

successors

n63 0

predecessors

n1 0

n26 0

n69 (Add):

successors

n44 0

n33 0

predecessors

n35 0

n24 (Or):

successors

n23 0

n68 (Shift):

successors

n66 0

predecessors

n89 0

n27 (Shift):

successors

n71 0

predecessors

n28 0

n12 0

n26 (Sub):

successors

n25 0

n29 (Add):

successors

n49 0

predecessors

n30 0

n31 0

n28 (Sub):

successors

n27 0

n70 (And):

successors

n31 0

predecessors

n36 0

n52 0

n72 (Shift):

successors

n71 0

predecessors

n12 0

n71 (Or):

successors

n47 0

predecessors

n27 0

n72 0

n30 (Or):

successors

n29 0

predecessors

n37 0

n4 0

n74 (And):

successors

n11 0

predecessors

n5 0

n40 0

n73 (And):

successors

n64 0

predecessors

n49 0

n15 0

n32 (Add):

predecessors

n33 0

n76 (And):

successors

n31 0

predecessors

n57 0

n12 0

n31 (Or):

successors

n29 0

predecessors

n70 0

n76 0

n75 (Sub):

successors

n17 0

n34 (Mem):

successors

n80 0

predecessors

n35 0

n78 (Shift):

successors

n77 0

predecessors

n49 0

n33 (Add):

successors

n8 0

n32 0

predecessors

n69 0

n77 (Or):

predecessors

n79 0

n78 0

n36 (Or):

successors

n70 0

predecessors

n12 0

n35 (Add):

successors

n69 0

n34 0

predecessors

n45 0

n79 (Shift):

successors

n77 0

predecessors

n49 0

n81 0

n38 (And):

successors

n64 0

predecessors

n39 0

n40 0

n37 (Shift):

successors

n30 0

predecessors

n5 0

n39 (Or):

successors

n38 0

predecessors

n49 0

n81 (Sub):

successors

n79 0

n80 (Add):

successors

n87 0

predecessors

n34 0

n83 (Shift):

successors

n40 0

predecessors

n84 0

n12 0

n82 (Mem):

successors

n86 0

predecessors

n45 0

n41 (Shift):

successors

n57 0

predecessors

n42 0

n85 (Mem):

successors

n56 0

n40 (Or):

successors

n38 0

n74 0

predecessors

n83 0

n88 0

n84 (Sub):

successors

n83 0

n43 (Add):

successors

n55 0

predecessors

n44 0

n87 (Add):

successors

n49 0

predecessors

n80 0

n42 (Sub):

successors

n41 0

n86 (Add):

successors

n46 0

predecessors

n82 0

n45 (Add):

successors

n35 0

n82 0

n89 (Sub):

successors

n68 0

n44 (Mem):

successors

n43 0

predecessors

n69 0

n88 (Shift):

successors

n40 0

predecessors

n12 0

n47 (Add):

successors

n5 0

predecessors

n59 0

n71 0

n46 (Add):

successors

n5 0

predecessors

n86 0

n49 (Add):

successors

n79 0

n48 0

n39 0

n51 0

n73 0

n78 0

predecessors

n29 0

n87 0

n48 (Shift):

successors

n10 0

predecessors

n49 0

n50 0

Nr of Nodes : 92

ASAP

Found schedule of length 21

n90 : [0:0]

n3 : [0:0]

n81 : [0:0]

n91 : [0:0]

n6 : [0:0]

n50 : [0:0]

n85 : [0:1]

n84 : [0:0]

n65 : [0:0]

n53 : [0:0]

n75 : [0:0]

n42 : [0:0]

n67 : [0:0]

n45 : [0:0]

n89 : [0:0]

n22 : [0:0]

n58 : [0:0]

n24 : [0:0]

n26 : [0:0]

n28 : [0:0]

n35 : [1:1]

n68 : [1:1]

n2 : [1:1]

n82 : [1:2]

n41 : [1:1]

n54 : [1:1]

n23 : [1:1]

n69 : [2:2]

n57 : [2:2]

n52 : [2:2]

n21 : [2:2]

n56 : [2:2]

n34 : [2:3]

n66 : [2:2]

n14 : [3:3]

n13 : [3:3]

n60 : [3:3]

n86 : [3:3]

n44 : [3:4]

n33 : [3:3]

n46 : [4:4]

n59 : [4:4]

n80 : [4:4]

n8 : [4:5]

n32 : [4:4]

n12 : [4:4]

n36 : [5:5]

n27 : [5:5]

n72 : [5:5]

n83 : [5:5]

n87 : [5:5]

n43 : [5:5]

n76 : [5:5]

n88 : [5:5]

n70 : [6:6]

n7 : [6:6]

n71 : [6:6]

n40 : [6:6]

n55 : [6:6]

n47 : [7:7]

n19 : [7:7]

n31 : [7:7]

n5 : [8:8]

n16 : [9:9]

n37 : [9:9]

n17 : [9:9]

n4 : [9:9]

n74 : [9:9]

n62 : [9:9]

n15 : [10:10]

n61 : [10:10]

n30 : [10:10]

n29 : [11:11]

n11 : [11:11]

n49 : [12:12]

n79 : [13:13]

n48 : [13:13]

n39 : [13:13]

n51 : [13:13]

n73 : [13:13]

n78 : [13:13]

n38 : [14:14]

n10 : [14:14]

n77 : [14:14]

n9 : [15:15]

n64 : [15:15]

n1 : [16:16]

n25 : [17:17]

n0 : [17:17]

n63 : [18:18]

n20 : [19:19]

n18 : [20:20]

Registered resources

SH 13 8.0

SH 9 8.0

SH 5 8.0

SH 1 6.0

SH 0 6.0

SH 17 4.0

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 5 9.0

MEM 0 9.0

SUB 0 14.0

CMP 0 2.1

OR 2 8.0

OR 14 4.0

OR 10 4.0

OR 6 4.0

OR 0 4.0

OR 18 2.0

OR 15 2.0

OR 13 2.0

OR 11 2.0

OR 9 2.0

OR 7 2.0

OR 5 2.0

OR 4 2.0

AND 1 4.0

AND 14 2.0

AND 13 2.0

AND 10 2.0

AND 9 2.0

AND 6 2.0

AND 5 2.0

AND 3 2.0

AND 0 2.0

ADD 4 4.0

ADD 3 4.0

ADD 7 2.0

ADD 6 2.0

ADD 5 2.0

ADD 2 2.0

ADD 0 2.0

ADD 20 1.0

ADD 19 1.0

ADD 16 1.0

ADD 15 1.0

ADD 12 1.0

ADD 11 1.0

ADD 8 1.0

ADD 1 1.0

cost = 58.1

ALAP

Found schedule of length 21

n24 : [0:0]

n85 : [0:1]

n89 : [0:0]

n68 : [1:1]

n23 : [1:1]

n67 : [1:1]

n22 : [1:1]

n21 : [2:2]

n65 : [2:2]

n56 : [2:2]

n66 : [2:2]

n14 : [3:3]

n13 : [3:3]

n54 : [3:3]

n53 : [3:3]

n45 : [3:3]

n28 : [4:4]

n3 : [4:4]

n82 : [4:5]

n52 : [4:4]

n12 : [4:4]

n27 : [5:5]

n2 : [5:5]

n72 : [5:5]

n60 : [5:5]

n59 : [6:6]

n71 : [6:6]

n86 : [6:6]

n42 : [6:6]

n58 : [7:7]

n47 : [7:7]

n35 : [7:7]

n46 : [7:7]

n41 : [7:7]

n36 : [8:8]

n57 : [8:8]

n5 : [8:8]

n6 : [8:8]

n34 : [8:9]

n37 : [9:9]

n4 : [9:9]

n70 : [9:9]

n76 : [9:9]

n80 : [10:10]

n30 : [10:10]

n84 : [10:10]

n31 : [10:10]

n69 : [11:11]

n29 : [11:11]

n83 : [11:11]

n87 : [11:11]

n88 : [11:11]

n49 : [12:12]

n50 : [12:12]

n62 : [12:12]

n40 : [12:12]

n44 : [12:13]

n48 : [13:13]

n61 : [13:13]

n74 : [13:13]

n51 : [13:13]

n10 : [14:14]

n43 : [14:14]

n75 : [14:14]

n11 : [14:14]

n16 : [15:15]

n17 : [15:15]

n9 : [15:15]

n33 : [15:15]

n55 : [15:15]

n26 : [16:16]

n1 : [16:16]

n15 : [16:16]

n39 : [16:16]

n8 : [16:17]

n25 : [17:17]

n0 : [17:17]

n38 : [17:17]

n73 : [17:17]

n81 : [18:18]

n7 : [18:18]

n63 : [18:18]

n64 : [18:18]

n79 : [19:19]

n19 : [19:19]

n20 : [19:19]

n78 : [19:19]

n90 : [20:20]

n18 : [20:20]

n91 : [20:20]

n32 : [20:20]

n77 : [20:20]

Registered resources

SH 19 4.0

SH 17 4.0

SH 15 4.0

SH 13 4.0

SH 11 4.0

SH 9 4.0

SH 7 4.0

SH 5 4.0

SH 3 4.0

SH 1 4.0

MEM 17 9.0

MEM 16 9.0

MEM 13 9.0

MEM 12 9.0

MEM 9 9.0

MEM 8 9.0

MEM 5 9.0

MEM 4 9.0

MEM 1 9.0

MEM 0 9.0

CMP 20 2.1

SUB 18 1.4

SUB 16 1.4

SUB 14 1.4

SUB 12 1.4

SUB 10 1.4

SUB 8 1.4

SUB 6 1.4

SUB 4 1.4

SUB 2 1.4

SUB 0 1.4

OR 18 4.0

OR 16 4.0

OR 14 4.0

OR 12 4.0

OR 10 4.0

OR 8 4.0

OR 6 4.0

OR 4 4.0

OR 2 4.0

OR 20 2.0

OR 0 2.0

AND 17 4.0

AND 13 4.0

AND 9 4.0

AND 5 4.0

AND 1 4.0

ADD 20 3.0

ADD 15 3.0

ADD 11 3.0

ADD 7 3.0

ADD 3 3.0

ADD 19 2.0

ADD 18 1.0

ADD 16 1.0

ADD 14 1.0

ADD 12 1.0

ADD 10 1.0

ADD 8 1.0

ADD 6 1.0

ADD 4 1.0

ADD 2 1.0

cost = 27.5

# SHA1Digest-processBlock-332-693

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=56836:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA1Digest-processBlock-332-693.dot

Scheduling scheduler-framework-master/graphs/SHA1Digest-processBlock-332-693.dot

n0 (Shift):

successors

n40 0

predecessors

n1 0

n1 (Sub):

successors

n0 0

n2 (Add):

predecessors

n3 0

n3 (Add):

successors

n15 0

n2 0

predecessors

n59 0

n4 (Shift):

successors

n77 0

predecessors

n5 0

n5 (Add):

successors

n68 0

n4 0

n9 0

n10 0

n65 0

predecessors

n50 0

n51 0

n6 (Add):

successors

n46 0

predecessors

n7 0

n8 0

n50 (Add):

successors

n5 0

predecessors

n42 0

n7 (Or):

successors

n6 0

predecessors

n9 0

n10 0

n8 (Or):

successors

n6 0

predecessors

n26 0

n11 0

n52 (Sub):

successors

n29 0

n9 (Shift):

successors

n7 0

predecessors

n5 0

n51 (Add):

successors

n5 0

predecessors

n64 0

n55 0

n10 (Shift):

successors

n7 0

predecessors

n5 0

n62 0

n54 (Add):

successors

n47 0

predecessors

n71 0

n75 0

n53 (Add):

successors

n47 0

predecessors

n44 0

n12 (Shift):

successors

n11 0

n56 (Or):

successors

n55 0

predecessors

n47 0

n11 0

n11 (Or):

successors

n38 0

n8 0

n56 0

predecessors

n13 0

n12 0

n55 (Or):

successors

n51 0

predecessors

n40 0

n56 0

n14 (Add):

successors

n38 0

predecessors

n15 0

n58 (Mem):

successors

n61 0

predecessors

n59 0

n13 (Shift):

successors

n11 0

predecessors

n78 0

n57 (Add):

successors

n59 0

n43 0

predecessors

n63 0

n16 (Or):

successors

n68 0

predecessors

n18 0

n17 0

n15 (Mem):

successors

n14 0

predecessors

n3 0

n59 (Add):

successors

n58 0

n3 0

predecessors

n57 0

n18 (Shift):

successors

n16 0

predecessors

n49 0

n19 0

n17 (Shift):

successors

n16 0

predecessors

n19 0

n19 (Add):

successors

n26 0

n18 0

n17 0

n30 0

n74 0

predecessors

n21 0

n20 0

n61 (Add):

successors

n60 0

predecessors

n58 0

n60 (Add):

successors

n46 0

predecessors

n61 0

n40 0

n63 (Add):

successors

n57 0

n34 0

n62 (Sub):

successors

n10 0

n21 (Add):

successors

n19 0

predecessors

n35 0

n73 0

n65 (Shift):

successors

n77 0

predecessors

n5 0

n66 0

n20 (Add):

successors

n19 0

predecessors

n25 0

n64 (Or):

successors

n51 0

predecessors

n74 0

n30 0

n23 (Shift):

successors

n22 0

predecessors

n46 0

n67 (Or):

successors

n70 0

predecessors

n68 0

n27 0

n22 (Or):

successors

n70 0

predecessors

n24 0

n23 0

n66 (Sub):

successors

n65 0

n25 (Add):

successors

n20 0

predecessors

n34 0

n69 (Add):

predecessors

n38 0

n70 0

n24 (Shift):

successors

n22 0

predecessors

n46 0

n79 0

n68 (Or):

successors

n67 0

predecessors

n16 0

n5 0

n27 (Or):

successors

n26 0

n67 0

predecessors

n29 0

n28 0

n26 (Or):

successors

n8 0

predecessors

n27 0

n19 0

n29 (Shift):

successors

n27 0

predecessors

n47 0

n52 0

n28 (Shift):

successors

n27 0

predecessors

n47 0

n70 (Add):

successors

n69 0

predecessors

n67 0

n22 0

n72 (Shift):

successors

n71 0

n71 (Or):

successors

n54 0

predecessors

n72 0

n32 0

n30 (Shift):

successors

n64 0

predecessors

n19 0

n31 0

n74 (Shift):

successors

n64 0

predecessors

n19 0

n73 (Or):

successors

n21 0

predecessors

n39 0

n32 (Shift):

successors

n71 0

predecessors

n33 0

n76 (Or):

successors

n75 0

n31 (Sub):

successors

n30 0

n75 (Or):

successors

n54 0

predecessors

n76 0

n34 (Mem):

successors

n25 0

predecessors

n63 0

n78 (Sub):

successors

n13 0

n33 (Sub):

successors

n32 0

n77 (Or):

predecessors

n4 0

n65 0

n36 (Shift):

successors

n35 0

predecessors

n47 0

n35 (Or):

successors

n21 0

predecessors

n36 0

n37 0

n79 (Sub):

successors

n24 0

n38 (Add):

successors

n69 0

predecessors

n14 0

n11 0

n37 (Shift):

successors

n35 0

predecessors

n47 0

n48 0

n39 (Or):

successors

n73 0

predecessors

n40 0

n81 (Cmp):

n80 (Add):

n41 (Shift):

successors

n40 0

n40 (Or):

successors

n39 0

n60 0

n55 0

predecessors

n0 0

n41 0

n43 (Mem):

successors

n42 0

predecessors

n57 0

n42 (Add):

successors

n50 0

predecessors

n43 0

n45 (Mem):

successors

n44 0

n44 (Add):

successors

n53 0

predecessors

n45 0

n47 (Add):

successors

n36 0

n37 0

n29 0

n28 0

n56 0

predecessors

n54 0

n53 0

n46 (Add):

successors

n24 0

n23 0

predecessors

n6 0

n60 0

n49 (Sub):

successors

n18 0

n48 (Sub):

successors

n37 0

Nr of Nodes : 82

ASAP

Found schedule of length 21

n1 : [0:0]

n81 : [0:0]

n80 : [0:0]

n72 : [0:0]

n52 : [0:0]

n63 : [0:0]

n41 : [0:0]

n62 : [0:0]

n76 : [0:0]

n31 : [0:0]

n12 : [0:0]

n78 : [0:0]

n45 : [0:1]

n66 : [0:0]

n33 : [0:0]

n79 : [0:0]

n49 : [0:0]

n48 : [0:0]

n57 : [1:1]

n13 : [1:1]

n0 : [1:1]

n32 : [1:1]

n75 : [1:1]

n34 : [1:2]

n59 : [2:2]

n71 : [2:2]

n40 : [2:2]

n43 : [2:3]

n44 : [2:2]

n11 : [2:2]

n25 : [3:3]

n58 : [3:4]

n3 : [3:3]

n39 : [3:3]

n54 : [3:3]

n53 : [3:3]

n47 : [4:4]

n15 : [4:5]

n2 : [4:4]

n73 : [4:4]

n20 : [4:4]

n42 : [4:4]

n36 : [5:5]

n37 : [5:5]

n29 : [5:5]

n28 : [5:5]

n61 : [5:5]

n50 : [5:5]

n56 : [5:5]

n14 : [6:6]

n35 : [6:6]

n27 : [6:6]

n60 : [6:6]

n55 : [6:6]

n38 : [7:7]

n21 : [7:7]

n19 : [8:8]

n26 : [9:9]

n18 : [9:9]

n17 : [9:9]

n30 : [9:9]

n74 : [9:9]

n16 : [10:10]

n8 : [10:10]

n64 : [10:10]

n51 : [11:11]

n5 : [12:12]

n68 : [13:13]

n4 : [13:13]

n9 : [13:13]

n10 : [13:13]

n65 : [13:13]

n7 : [14:14]

n67 : [14:14]

n77 : [14:14]

n6 : [15:15]

n46 : [16:16]

n24 : [17:17]

n23 : [17:17]

n22 : [18:18]

n70 : [19:19]

n69 : [20:20]

Registered resources

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 5 9.0

MEM 0 9.0

OR 14 6.0

OR 10 6.0

OR 6 6.0

OR 2 6.0

OR 18 2.0

OR 13 2.0

OR 9 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

OR 1 2.0

OR 0 2.0

ADD 4 4.0

ADD 3 4.0

ADD 7 2.0

ADD 6 2.0

ADD 5 2.0

ADD 2 2.0

ADD 0 2.0

ADD 20 1.0

ADD 19 1.0

ADD 16 1.0

ADD 15 1.0

ADD 12 1.0

ADD 11 1.0

ADD 8 1.0

ADD 1 1.0

SH 13 8.0

SH 9 8.0

SH 5 8.0

SH 1 6.0

SH 0 6.0

SH 17 4.0

CMP 0 2.1

SUB 0 14.0

cost = 52.1

ALAP

Found schedule of length 21

n45 : [0:1]

n33 : [0:0]

n72 : [1:1]

n32 : [1:1]

n76 : [1:1]

n1 : [2:2]

n71 : [2:2]

n75 : [2:2]

n44 : [2:2]

n0 : [3:3]

n63 : [3:3]

n41 : [3:3]

n54 : [3:3]

n53 : [3:3]

n47 : [4:4]

n48 : [4:4]

n40 : [4:4]

n34 : [4:5]

n36 : [5:5]

n37 : [5:5]

n39 : [5:5]

n25 : [6:6]

n35 : [6:6]

n73 : [6:6]

n78 : [6:6]

n57 : [7:7]

n13 : [7:7]

n21 : [7:7]

n20 : [7:7]

n12 : [7:7]

n19 : [8:8]

n43 : [8:9]

n31 : [8:8]

n11 : [8:8]

n74 : [9:9]

n30 : [9:9]

n56 : [9:9]

n52 : [10:10]

n42 : [10:10]

n64 : [10:10]

n55 : [10:10]

n59 : [11:11]

n29 : [11:11]

n28 : [11:11]

n50 : [11:11]

n51 : [11:11]

n58 : [12:13]

n27 : [12:12]

n5 : [12:12]

n62 : [12:12]

n26 : [13:13]

n9 : [13:13]

n10 : [13:13]

n49 : [14:14]

n61 : [14:14]

n7 : [14:14]

n8 : [14:14]

n18 : [15:15]

n3 : [15:15]

n17 : [15:15]

n6 : [15:15]

n60 : [15:15]

n79 : [16:16]

n46 : [16:16]

n16 : [16:16]

n15 : [16:17]

n68 : [17:17]

n24 : [17:17]

n23 : [17:17]

n14 : [18:18]

n67 : [18:18]

n22 : [18:18]

n66 : [18:18]

n38 : [19:19]

n70 : [19:19]

n4 : [19:19]

n65 : [19:19]

n69 : [20:20]

n2 : [20:20]

n81 : [20:20]

n80 : [20:20]

n77 : [20:20]

Registered resources

MEM 17 9.0

MEM 16 9.0

MEM 13 9.0

MEM 12 9.0

MEM 9 9.0

MEM 8 9.0

MEM 5 9.0

MEM 4 9.0

MEM 1 9.0

MEM 0 9.0

OR 18 4.0

OR 14 4.0

OR 10 4.0

OR 6 4.0

OR 2 4.0

OR 20 2.0

OR 17 2.0

OR 16 2.0

OR 13 2.0

OR 12 2.0

OR 9 2.0

OR 8 2.0

OR 5 2.0

OR 4 2.0

OR 1 2.0

ADD 20 3.0

ADD 15 3.0

ADD 11 3.0

ADD 7 3.0

ADD 3 3.0

ADD 19 2.0

ADD 18 1.0

ADD 16 1.0

ADD 14 1.0

ADD 12 1.0

ADD 10 1.0

ADD 8 1.0

ADD 6 1.0

ADD 4 1.0

ADD 2 1.0

SH 19 4.0

SH 17 4.0

SH 15 4.0

SH 13 4.0

SH 11 4.0

SH 9 4.0

SH 7 4.0

SH 5 4.0

SH 3 4.0

SH 1 4.0

CMP 20 2.1

SUB 18 1.4

SUB 16 1.4

SUB 14 1.4

SUB 12 1.4

SUB 10 1.4

SUB 8 1.4

SUB 6 1.4

SUB 4 1.4

SUB 2 1.4

SUB 0 1.4

cost = 23.5

# SHA1Digest-processBlock-559-950

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=56856:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA1Digest-processBlock-559-950.dot

Scheduling scheduler-framework-master/graphs/SHA1Digest-processBlock-559-950.dot

n90 (Sub):

successors

n89 0

n92 (And):

successors

n91 0

n91 (Or):

successors

n65 0

predecessors

n92 0

n11 0

n94 (Sub):

successors

n60 0

n93 (Shift):

successors

n35 0

predecessors

n48 0

n96 (Cmp):

n95 (Add):

n10 (Or):

successors

n8 0

n85 0

n32 0

n76 0

n56 0

predecessors

n57 0

n16 0

n12 (And):

successors

n11 0

n11 (Or):

successors

n91 0

predecessors

n13 0

n12 0

n14 (Add):

successors

n51 0

predecessors

n15 0

n13 (And):

successors

n11 0

n16 (Shift):

successors

n10 0

predecessors

n17 0

n15 (Mem):

successors

n14 0

predecessors

n22 0

n18 (Shift):

successors

n26 0

predecessors

n19 0

n17 (Sub):

successors

n16 0

n19 (Sub):

successors

n18 0

n21 (Or):

successors

n85 0

n51 0

n54 0

n87 0

n20 0

predecessors

n63 0

n45 0

n20 (And):

successors

n84 0

predecessors

n6 0

n21 0

n23 (Shift):

successors

n68 0

predecessors

n6 0

n22 (Add):

successors

n15 0

n67 0

predecessors

n31 0

n25 (Or):

successors

n47 0

n24 0

n75 0

n56 0

predecessors

n81 0

n5 0

n24 (And):

successors

n55 0

predecessors

n25 0

n9 0

n27 (Shift):

successors

n26 0

n26 (Or):

successors

n65 0

predecessors

n27 0

n18 0

n29 (Sub):

successors

n28 0

n28 (Shift):

successors

n69 0

predecessors

n29 0

n9 0

n30 (Mem):

successors

n44 0

predecessors

n31 0

n32 (Add):

successors

n37 0

predecessors

n10 0

n33 0

n31 (Add):

successors

n30 0

n22 0

predecessors

n73 0

n34 (Add):

successors

n4 0

predecessors

n36 0

n35 0

n33 (Add):

successors

n32 0

predecessors

n58 0

n36 (Or):

successors

n34 0

predecessors

n56 0

n55 0

n35 (Or):

successors

n34 0

predecessors

n93 0

n89 0

n38 (Add):

successors

n37 0

predecessors

n72 0

n71 0

n37 (Add):

predecessors

n38 0

n32 0

n39 (Add):

successors

n41 0

predecessors

n40 0

n41 (Add):

successors

n9 0

predecessors

n39 0

n40 (Mem):

successors

n39 0

predecessors

n73 0

n43 (Add):

successors

n48 0

predecessors

n44 0

n42 (Add):

successors

n9 0

predecessors

n68 0

n52 0

n45 (Shift):

successors

n21 0

predecessors

n46 0

n44 (Add):

successors

n43 0

predecessors

n30 0

n47 (And):

successors

n74 0

predecessors

n25 0

n48 0

n46 (Sub):

successors

n45 0

n49 (And):

successors

n74 0

predecessors

n48 0

n50 0

n48 (Add):

successors

n47 0

n49 0

n1 0

n2 0

n93 0

n89 0

predecessors

n79 0

n43 0

n0 (Or):

predecessors

n1 0

n2 0

n1 (Shift):

successors

n0 0

predecessors

n48 0

n2 (Shift):

successors

n0 0

predecessors

n48 0

n86 0

n3 (Shift):

successors

n71 0

predecessors

n4 0

n4 (Add):

successors

n3 0

n82 0

predecessors

n51 0

n34 0

n5 (Shift):

successors

n25 0

predecessors

n6 0

n7 0

n6 (Add):

successors

n81 0

n5 0

n61 0

n76 0

n20 0

n23 0

predecessors

n65 0

n64 0

n50 (Or):

successors

n49 0

n75 0

predecessors

n59 0

n60 0

n7 (Sub):

successors

n5 0

n8 (And):

successors

n55 0

predecessors

n9 0

n10 0

n52 (Or):

successors

n42 0

predecessors

n54 0

n53 0

n9 (Add):

successors

n24 0

n59 0

n28 0

n70 0

n60 0

n8 0

predecessors

n41 0

n42 0

n51 (Add):

successors

n4 0

predecessors

n14 0

n21 0

n54 (And):

successors

n52 0

predecessors

n21 0

n53 (Or):

successors

n52 0

predecessors

n87 0

n88 0

n56 (And):

successors

n36 0

predecessors

n25 0

n10 0

n55 (Or):

successors

n36 0

predecessors

n24 0

n8 0

n58 (Mem):

successors

n33 0

predecessors

n67 0

n57 (Shift):

successors

n10 0

n59 (Shift):

successors

n50 0

predecessors

n9 0

n61 (Shift):

successors

n68 0

predecessors

n6 0

n62 0

n60 (Shift):

successors

n50 0

predecessors

n94 0

n9 0

n63 (Shift):

successors

n21 0

n62 (Sub):

successors

n61 0

n65 (Add):

successors

n6 0

predecessors

n26 0

n91 0

n64 (Add):

successors

n6 0

predecessors

n77 0

n67 (Add):

successors

n58 0

n66 0

predecessors

n22 0

n66 (Add):

predecessors

n67 0

n69 (Or):

successors

n79 0

predecessors

n28 0

n70 0

n68 (Or):

successors

n42 0

predecessors

n61 0

n23 0

n70 (Shift):

successors

n69 0

predecessors

n9 0

n72 (Or):

successors

n38 0

predecessors

n74 0

n75 0

n71 (Or):

successors

n38 0

predecessors

n3 0

n82 0

n74 (Or):

successors

n72 0

predecessors

n47 0

n49 0

n73 (Add):

successors

n40 0

n31 0

n76 (And):

successors

n84 0

predecessors

n6 0

n10 0

n75 (And):

successors

n72 0

predecessors

n25 0

n50 0

n78 (Mem):

successors

n77 0

n77 (Add):

successors

n64 0

predecessors

n78 0

n79 (Add):

successors

n48 0

predecessors

n69 0

n80 0

n81 (Shift):

successors

n25 0

predecessors

n6 0

n80 (Or):

successors

n79 0

predecessors

n85 0

n84 0

n83 (Sub):

successors

n82 0

n82 (Shift):

successors

n71 0

predecessors

n4 0

n83 0

n85 (And):

successors

n80 0

predecessors

n10 0

n21 0

n84 (Or):

successors

n80 0

predecessors

n76 0

n20 0

n87 (And):

successors

n53 0

predecessors

n21 0

n86 (Sub):

successors

n2 0

n89 (Shift):

successors

n35 0

predecessors

n48 0

n90 0

n88 (And):

successors

n53 0

Nr of Nodes : 97

ASAP

Found schedule of length 21

n90 : [0:0]

n92 : [0:0]

n94 : [0:0]

n83 : [0:0]

n7 : [0:0]

n96 : [0:0]

n63 : [0:0]

n95 : [0:0]

n62 : [0:0]

n73 : [0:0]

n86 : [0:0]

n12 : [0:0]

n78 : [0:1]

n88 : [0:0]

n13 : [0:0]

n46 : [0:0]

n57 : [0:0]

n27 : [0:0]

n29 : [0:0]

n17 : [0:0]

n19 : [0:0]

n16 : [1:1]

n18 : [1:1]

n40 : [1:2]

n31 : [1:1]

n45 : [1:1]

n11 : [1:1]

n26 : [2:2]

n91 : [2:2]

n30 : [2:3]

n10 : [2:2]

n21 : [2:2]

n77 : [2:2]

n22 : [2:2]

n15 : [3:4]

n39 : [3:3]

n85 : [3:3]

n65 : [3:3]

n54 : [3:3]

n87 : [3:3]

n64 : [3:3]

n67 : [3:3]

n58 : [4:5]

n6 : [4:4]

n41 : [4:4]

n53 : [4:4]

n44 : [4:4]

n66 : [4:4]

n14 : [5:5]

n81 : [5:5]

n5 : [5:5]

n61 : [5:5]

n52 : [5:5]

n43 : [5:5]

n76 : [5:5]

n20 : [5:5]

n23 : [5:5]

n25 : [6:6]

n68 : [6:6]

n51 : [6:6]

n84 : [6:6]

n33 : [6:6]

n80 : [7:7]

n32 : [7:7]

n42 : [7:7]

n56 : [7:7]

n9 : [8:8]

n24 : [9:9]

n59 : [9:9]

n28 : [9:9]

n70 : [9:9]

n60 : [9:9]

n8 : [9:9]

n69 : [10:10]

n50 : [10:10]

n55 : [10:10]

n36 : [11:11]

n79 : [11:11]

n75 : [11:11]

n48 : [12:12]

n47 : [13:13]

n49 : [13:13]

n1 : [13:13]

n2 : [13:13]

n93 : [13:13]

n89 : [13:13]

n35 : [14:14]

n0 : [14:14]

n74 : [14:14]

n72 : [15:15]

n34 : [15:15]

n4 : [16:16]

n3 : [17:17]

n82 : [17:17]

n71 : [18:18]

n38 : [19:19]

n37 : [20:20]

Registered resources

MEM 4 18.0

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 5 9.0

MEM 0 9.0

ADD 4 4.0

ADD 3 4.0

ADD 7 2.0

ADD 6 2.0

ADD 5 2.0

ADD 2 2.0

ADD 0 2.0

ADD 20 1.0

ADD 19 1.0

ADD 16 1.0

ADD 15 1.0

ADD 12 1.0

ADD 11 1.0

ADD 8 1.0

ADD 1 1.0

CMP 0 2.1

SH 13 8.0

SH 9 8.0

SH 5 8.0

SH 1 6.0

SH 0 6.0

SH 17 4.0

AND 0 8.0

AND 3 6.0

AND 13 4.0

AND 9 4.0

AND 5 4.0

AND 11 2.0

AND 7 2.0

OR 2 8.0

OR 14 6.0

OR 10 6.0

OR 6 6.0

OR 18 2.0

OR 15 2.0

OR 11 2.0

OR 7 2.0

OR 5 2.0

OR 4 2.0

OR 1 2.0

SUB 0 14.0

cost = 62.1

ALAP

Found schedule of length 21

n13 : [0:0]

n19 : [0:0]

n78 : [0:1]

n12 : [0:0]

n46 : [1:1]

n27 : [1:1]

n18 : [1:1]

n92 : [1:1]

n11 : [1:1]

n26 : [2:2]

n91 : [2:2]

n63 : [2:2]

n45 : [2:2]

n77 : [2:2]

n73 : [3:3]

n65 : [3:3]

n21 : [3:3]

n64 : [3:3]

n6 : [4:4]

n40 : [4:5]

n62 : [4:4]

n87 : [4:4]

n88 : [4:4]

n17 : [5:5]

n61 : [5:5]

n54 : [5:5]

n53 : [5:5]

n23 : [5:5]

n57 : [6:6]

n68 : [6:6]

n16 : [6:6]

n39 : [6:6]

n52 : [6:6]

n41 : [7:7]

n10 : [7:7]

n31 : [7:7]

n42 : [7:7]

n29 : [8:8]

n30 : [8:9]

n9 : [8:8]

n76 : [8:8]

n20 : [8:8]

n28 : [9:9]

n70 : [9:9]

n7 : [9:9]

n85 : [9:9]

n84 : [9:9]

n69 : [10:10]

n81 : [10:10]

n5 : [10:10]

n80 : [10:10]

n44 : [10:10]

n25 : [11:11]

n79 : [11:11]

n43 : [11:11]

n22 : [11:11]

n24 : [12:12]

n15 : [12:13]

n48 : [12:12]

n90 : [12:12]

n8 : [12:12]

n94 : [13:13]

n93 : [13:13]

n56 : [13:13]

n89 : [13:13]

n55 : [13:13]

n14 : [14:14]

n36 : [14:14]

n35 : [14:14]

n59 : [14:14]

n60 : [14:14]

n50 : [15:15]

n51 : [15:15]

n67 : [15:15]

n34 : [15:15]

n58 : [16:17]

n47 : [16:16]

n49 : [16:16]

n4 : [16:16]

n83 : [16:16]

n3 : [17:17]

n82 : [17:17]

n74 : [17:17]

n75 : [17:17]

n72 : [18:18]

n71 : [18:18]

n86 : [18:18]

n33 : [18:18]

n38 : [19:19]

n1 : [19:19]

n2 : [19:19]

n32 : [19:19]

n0 : [20:20]

n37 : [20:20]

n96 : [20:20]

n95 : [20:20]

n66 : [20:20]

Registered resources

MEM 17 9.0

MEM 16 9.0

MEM 13 9.0

MEM 12 9.0

MEM 9 9.0

MEM 8 9.0

MEM 5 9.0

MEM 4 9.0

MEM 1 9.0

MEM 0 9.0

ADD 20 3.0

ADD 15 3.0

ADD 11 3.0

ADD 7 3.0

ADD 3 3.0

ADD 19 2.0

ADD 18 1.0

ADD 16 1.0

ADD 14 1.0

ADD 12 1.0

ADD 10 1.0

ADD 8 1.0

ADD 6 1.0

ADD 4 1.0

ADD 2 1.0

CMP 20 2.1

SH 19 4.0

SH 17 4.0

SH 14 4.0

SH 13 4.0

SH 10 4.0

SH 9 4.0

SH 6 4.0

SH 5 4.0

SH 2 4.0

SH 1 4.0

OR 18 4.0

OR 14 4.0

OR 10 4.0

OR 6 4.0

OR 2 4.0

OR 20 2.0

OR 17 2.0

OR 15 2.0

OR 13 2.0

OR 11 2.0

OR 9 2.0

OR 7 2.0

OR 5 2.0

OR 3 2.0

OR 1 2.0

AND 16 4.0

AND 12 4.0

AND 8 4.0

AND 4 4.0

AND 0 4.0

AND 17 2.0

AND 13 2.0

AND 9 2.0

AND 5 2.0

AND 1 2.0

SUB 18 1.4

SUB 16 1.4

SUB 13 1.4

SUB 12 1.4

SUB 9 1.4

SUB 8 1.4

SUB 5 1.4

SUB 4 1.4

SUB 1 1.4

SUB 0 1.4

cost = 27.5

# SHA256Digest-processBlock-17-148

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=56869:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA256Digest-processBlock-17-148.dot

Scheduling scheduler-framework-master/graphs/SHA256Digest-processBlock-17-148.dot

n0 (Or):

successors

n14 0

predecessors

n1 0

n2 0

n1 (Or):

successors

n0 0

predecessors

n15 0

n20 0

n2 (Shift):

successors

n0 0

predecessors

n4 0

n3 (Shift):

successors

n20 0

predecessors

n4 0

n4 (Mem):

successors

n24 0

n16 0

n2 0

n3 0

n17 0

predecessors

n19 0

n5 (Or):

successors

n22 0

predecessors

n6 0

n7 0

n6 (Shift):

successors

n5 0

predecessors

n9 0

n7 (Shift):

successors

n5 0

predecessors

n26 0

n9 0

n8 (Shift):

successors

n27 0

predecessors

n9 0

n30 (Add):

successors

n31 0

predecessors

n28 0

n21 0

n9 (Mem):

successors

n6 0

n7 0

n8 0

n10 0

n23 0

predecessors

n18 0

n10 (Shift):

successors

n27 0

predecessors

n9 0

n11 0

n32 (Mem):

predecessors

n31 0

n31 (Add):

successors

n32 0

predecessors

n14 0

n30 0

n12 (Mem):

successors

n14 0

predecessors

n13 0

n34 (Add):

n11 (Sub):

successors

n10 0

n33 (Sub):

successors

n17 0

n14 (Add):

successors

n31 0

predecessors

n0 0

n12 0

n13 (Sub):

successors

n12 0

n35 (Cmp):

n16 (Shift):

successors

n15 0

predecessors

n4 0

n15 (Or):

successors

n1 0

predecessors

n16 0

n17 0

n18 (Sub):

successors

n9 0

n17 (Shift):

successors

n15 0

predecessors

n4 0

n33 0

n19 (Sub):

successors

n4 0

n21 (Or):

successors

n30 0

predecessors

n23 0

n22 0

n20 (Or):

successors

n1 0

predecessors

n24 0

n3 0

n23 (Shift):

successors

n21 0

predecessors

n9 0

n22 (Or):

successors

n21 0

predecessors

n27 0

n5 0

n25 (Sub):

successors

n24 0

n24 (Shift):

successors

n20 0

predecessors

n25 0

n4 0

n27 (Or):

successors

n22 0

predecessors

n8 0

n10 0

n26 (Sub):

successors

n7 0

n29 (Sub):

successors

n28 0

n28 (Mem):

successors

n30 0

predecessors

n29 0

Nr of Nodes : 36

ASAP

Found schedule of length 11

n25 : [0:0]

n13 : [0:0]

n35 : [0:0]

n26 : [0:0]

n18 : [0:0]

n29 : [0:0]

n19 : [0:0]

n34 : [0:0]

n11 : [0:0]

n33 : [0:0]

n28 : [1:2]

n4 : [1:2]

n9 : [1:2]

n12 : [1:2]

n24 : [3:3]

n16 : [3:3]

n2 : [3:3]

n3 : [3:3]

n17 : [3:3]

n6 : [3:3]

n7 : [3:3]

n8 : [3:3]

n10 : [3:3]

n23 : [3:3]

n27 : [4:4]

n15 : [4:4]

n5 : [4:4]

n20 : [4:4]

n1 : [5:5]

n22 : [5:5]

n0 : [6:6]

n21 : [6:6]

n14 : [7:7]

n30 : [7:7]

n31 : [8:8]

n32 : [9:10]

Registered resources

OR 4 8.0

OR 6 4.0

OR 5 4.0

SH 3 20.0

ADD 7 2.0

ADD 8 1.0

ADD 0 1.0

MEM 2 36.0

MEM 1 36.0

MEM 10 9.0

MEM 9 9.0

CMP 0 2.1

SUB 0 11.2

cost = 79.3

ALAP

Found schedule of length 11

n18 : [0:0]

n19 : [0:0]

n4 : [1:2]

n9 : [1:2]

n25 : [2:2]

n26 : [2:2]

n33 : [2:2]

n11 : [2:2]

n24 : [3:3]

n16 : [3:3]

n17 : [3:3]

n3 : [3:3]

n6 : [3:3]

n7 : [3:3]

n8 : [3:3]

n10 : [3:3]

n13 : [4:4]

n27 : [4:4]

n15 : [4:4]

n29 : [4:4]

n5 : [4:4]

n20 : [4:4]

n1 : [5:5]

n2 : [5:5]

n28 : [5:6]

n12 : [5:6]

n23 : [5:5]

n22 : [5:5]

n0 : [6:6]

n21 : [6:6]

n14 : [7:7]

n30 : [7:7]

n31 : [8:8]

n32 : [9:10]

n35 : [10:10]

n34 : [10:10]

Registered resources

OR 4 8.0

OR 6 4.0

OR 5 4.0

SH 3 16.0

SH 5 4.0

MEM 6 18.0

MEM 5 18.0

MEM 2 18.0

MEM 1 18.0

MEM 10 9.0

MEM 9 9.0

ADD 7 2.0

ADD 10 1.0

ADD 8 1.0

CMP 10 2.1

SUB 2 5.6

SUB 4 2.8

SUB 0 2.8

cost = 51.7

# SHA256Digest-processBlock-119-1722

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64366:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA256Digest-processBlock-119-1722.dot

Scheduling scheduler-framework-master/graphs/SHA256Digest-processBlock-119-1722.dot

n90 (Sub):

successors

n22 0

n92 (Sub):

successors

n91 0

n91 (Shift):

successors

n284 0

predecessors

n92 0

n94 (Shift):

successors

n93 0

predecessors

n40 0

n93 (Or):

successors

n253 0

predecessors

n94 0

n95 0

n96 (Sub):

successors

n2 0

n95 (Shift):

successors

n93 0

predecessors

n286 0

n40 0

n98 (Add):

successors

n10 0

predecessors

n100 0

n99 0

n97 (Shift):

successors

n291 0

predecessors

n46 0

n99 (Or):

successors

n98 0

predecessors

n265 0

n332 0

n312 (Add):

successors

n41 0

n9 0

predecessors

n361 0

n80 0

n313 (Or):

successors

n227 0

predecessors

n121 0

n347 0

n310 (Shift):

successors

n233 0

predecessors

n26 0

n311 (And):

successors

n174 0

predecessors

n35 0

n10 0

n316 (Sub):

successors

n30 0

n317 (Add):

successors

n353 0

n336 0

predecessors

n299 0

n318 0

n314 (Or):

successors

n204 0

predecessors

n351 0

n292 0

n315 (Or):

successors

n204 0

predecessors

n214 0

n309 0

n318 (Add):

successors

n317 0

predecessors

n122 0

n41 0

n319 (Or):

successors

n172 0

predecessors

n374 0

n42 0

n301 (Sub):

successors

n300 0

n302 (Or):

successors

n325 0

predecessors

n287 0

n127 0

n300 (Shift):

successors

n146 0

predecessors

n301 0

n67 0

n305 (Sub):

successors

n304 0

n306 (Shift):

successors

n171 0

n303 (Shift):

successors

n288 0

predecessors

n41 0

n304 (Shift):

successors

n273 0

predecessors

n305 0

n32 0

n309 (Shift):

successors

n315 0

predecessors

n35 0

n307 (Shift):

successors

n171 0

predecessors

n348 0

n308 (Add):

successors

n226 0

predecessors

n58 0

n285 0

n330 (And):

successors

n174 0

predecessors

n35 0

n9 0

n210 (Shift):

successors

n208 0

predecessors

n46 0

n254 0

n331 (Sub):

successors

n148 0

n213 (Or):

successors

n117 0

predecessors

n164 0

n147 0

n334 (Shift):

successors

n269 0

predecessors

n373 0

n7 0

n214 (Shift):

successors

n315 0

predecessors

n35 0

n215 0

n335 (Shift):

successors

n178 0

n211 (Mem):

successors

n163 0

predecessors

n212 0

n332 (Or):

successors

n99 0

predecessors

n242 0

n362 0

n212 (Add):

successors

n341 0

n79 0

n211 0

predecessors

n105 0

n333 (Shift):

successors

n188 0

predecessors

n89 0

n217 (Or):

successors

n216 0

predecessors

n327 0

n328 0

n338 (And):

successors

n324 0

n218 (Shift):

successors

n146 0

predecessors

n67 0

n339 (And):

successors

n326 0

predecessors

n290 0

n7 0

n215 (Sub):

successors

n214 0

n336 (Add):

predecessors

n317 0

n337 0

n216 (Or):

successors

n340 0

predecessors

n217 0

n60 0

n337 (Add):

successors

n336 0

predecessors

n232 0

n258 0

n219 (Or):

successors

n287 0

predecessors

n220 0

n65 0

n320 (Shift):

successors

n57 0

predecessors

n26 0

n321 0

n202 (Mem):

successors

n200 0

n323 (Mem):

successors

n354 0

predecessors

n103 0

n203 (And):

successors

n258 0

predecessors

n35 0

n18 0

n324 (Or):

successors

n175 0

predecessors

n223 0

n338 0

n200 (Add):

successors

n53 0

predecessors

n202 0

n201 0

n321 (Sub):

successors

n320 0

n201 (Mem):

successors

n200 0

n322 (Shift):

successors

n362 0

predecessors

n15 0

n206 (Or):

successors

n75 0

predecessors

n279 0

n168 0

n327 (Or):

successors

n217 0

predecessors

n110 0

n372 0

n207 (Or):

successors

n118 0

predecessors

n166 0

n270 0

n328 (Or):

successors

n217 0

predecessors

n125 0

n366 0

n204 (Or):

successors

n192 0

predecessors

n314 0

n315 0

n325 (Add):

successors

n160 0

predecessors

n302 0

n326 0

n205 (Or):

successors

n192 0

predecessors

n34 0

n193 0

n326 (Or):

successors

n325 0

predecessors

n342 0

n339 0

n208 (Or):

successors

n244 0

predecessors

n210 0

n209 0

n329 (Sub):

successors

n129 0

n209 (Shift):

successors

n208 0

predecessors

n46 0

n360 (Sub):

successors

n135 0

n110 (Shift):

successors

n327 0

predecessors

n111 0

n10 0

n231 (Sub):

successors

n230 0

n352 (Shift):

successors

n261 0

predecessors

n67 0

n111 (Sub):

successors

n110 0

n232 (Or):

successors

n337 0

predecessors

n233 0

n56 0

n353 (Add):

predecessors

n317 0

n9 0

n350 (Or):

successors

n50 0

predecessors

n40 0

n230 (Shift):

successors

n236 0

predecessors

n231 0

n7 0

n351 (Shift):

successors

n314 0

predecessors

n363 0

n35 0

n114 (Shift):

successors

n113 0

n235 (Sub):

successors

n234 0

n356 (Sub):

successors

n355 0

n115 (Shift):

successors

n113 0

predecessors

n141 0

n236 (Or):

successors

n268 0

predecessors

n230 0

n237 0

n357 (Sub):

successors

n266 0

n112 (Shift):

successors

n221 0

predecessors

n89 0

n233 (Or):

successors

n232 0

predecessors

n297 0

n310 0

n354 (Add):

successors

n37 0

predecessors

n323 0

n102 0

n113 (Or):

successors

n177 0

predecessors

n114 0

n115 0

n234 (Shift):

successors

n242 0

predecessors

n15 0

n235 0

n355 (Shift):

successors

n362 0

predecessors

n15 0

n356 0

n118 (Or):

successors

n116 0

predecessors

n207 0

n109 0

n239 (Or):

successors

n238 0

predecessors

n246 0

n51 0

n119 (Shift):

successors

n289 0

predecessors

n120 0

n7 0

n116 (Add):

successors

n26 0

predecessors

n118 0

n117 0

n237 (Shift):

successors

n236 0

predecessors

n7 0

n358 (Shift):

successors

n261 0

predecessors

n365 0

n67 0

n117 (Or):

successors

n116 0

predecessors

n142 0

n213 0

n238 (Or):

successors

n349 0

predecessors

n240 0

n239 0

n359 (Shift):

successors

n57 0

predecessors

n26 0

n220 (Shift):

successors

n219 0

predecessors

n41 0

n283 0

n341 (Mem):

successors

n163 0

predecessors

n212 0

n100 (Or):

successors

n98 0

predecessors

n104 0

n138 0

n221 (Or):

successors

n187 0

predecessors

n112 0

n222 0

n342 (And):

successors

n326 0

predecessors

n41 0

n89 0

n340 (Add):

successors

n9 0

predecessors

n216 0

n84 0

n103 (Add):

successors

n323 0

n102 0

n105 0

predecessors

n59 0

n224 (And):

successors

n223 0

n345 (Shift):

successors

n240 0

predecessors

n9 0

n104 (And):

successors

n100 0

predecessors

n32 0

n225 (And):

successors

n223 0

n346 (Shift):

successors

n183 0

predecessors

n32 0

n101 (Sub):

successors

n73 0

n222 (Shift):

successors

n221 0

predecessors

n295 0

n89 0

n343 (Add):

successors

n153 0

predecessors

n293 0

n78 0

n102 (Mem):

successors

n354 0

predecessors

n103 0

n223 (Or):

successors

n324 0

predecessors

n224 0

n225 0

n344 (Shift):

successors

n289 0

predecessors

n7 0

n107 (Sub):

successors

n106 0

n228 (Mem):

successors

n263 0

predecessors

n48 0

n349 (Or):

successors

n161 0

predecessors

n28 0

n238 0

n108 (And):

successors

n82 0

predecessors

n7 0

n89 0

n229 (Sub):

successors

n181 0

n105 (Add):

successors

n176 0

n255 0

n212 0

predecessors

n103 0

n226 (Add):

successors

n88 0

predecessors

n308 0

n347 (And):

successors

n313 0

predecessors

n140 0

n106 (Shift):

successors

n288 0

predecessors

n107 0

n41 0

n227 (Add):

successors

n88 0

predecessors

n144 0

n313 0

n348 (Sub):

successors

n307 0

n109 (And):

successors

n118 0

predecessors

n35 0

n9 0

n10 (Add):

successors

n61 0

n8 0

n62 0

n250 0

n55 0

n110 0

n46 0

n372 0

n241 0

n125 0

n159 0

n311 0

n366 0

predecessors

n36 0

n98 0

n260 (Or):

successors

n145 0

predecessors

n189 0

n294 0

n140 (Or):

successors

n347 0

predecessors

n67 0

n261 (Or):

successors

n145 0

predecessors

n352 0

n358 0

n12 (Shift):

successors

n11 0

predecessors

n26 0

n11 (Or):

successors

n56 0

predecessors

n13 0

n12 0

n14 (Add):

successors

n196 0

n1 0

n2 0

n279 0

n4 0

n168 0

n83 0

n282 0

n281 0

predecessors

n16 0

n15 0

n132 (And):

successors

n130 0

predecessors

n137 0

n253 (Or):

successors

n154 0

predecessors

n68 0

n93 0

n374 (And):

successors

n319 0

n13 (Shift):

successors

n11 0

predecessors

n27 0

n26 0

n133 (Or):

successors

n271 0

predecessors

n134 0

n135 0

n254 (Sub):

successors

n210 0

n375 (Sub):

successors

n282 0

n16 (Add):

successors

n14 0

n18 0

predecessors

n154 0

n153 0

n130 (Or):

successors

n54 0

predecessors

n132 0

n131 0

n251 (Sub):

successors

n62 0

n372 (Shift):

successors

n327 0

predecessors

n10 0

n15 (Add):

successors

n63 0

n64 0

n86 0

n250 0

n14 0

n243 0

n241 0

n167 0

n266 0

n234 0

n322 0

n355 0

n139 0

predecessors

n172 0

n88 0

n131 (And):

successors

n130 0

n252 (Or):

successors

n54 0

predecessors

n177 0

n284 0

n373 (Sub):

successors

n334 0

n18 (Add):

successors

n165 0

n143 0

n155 0

n166 0

n185 0

n17 0

n203 0

n148 0

n19 0

n270 0

predecessors

n16 0

n191 0

n136 (Or):

successors

n71 0

predecessors

n7 0

n257 (Sub):

successors

n256 0

n17 (Shift):

successors

n142 0

predecessors

n18 0

n137 (Or):

successors

n132 0

n258 (Or):

successors

n337 0

predecessors

n203 0

n184 0

n134 (Shift):

successors

n133 0

n255 (Mem):

successors

n264 0

predecessors

n105 0

n376 (Add):

n19 (Shift):

successors

n147 0

predecessors

n18 0

n135 (Shift):

successors

n133 0

predecessors

n360 0

n256 (Shift):

successors

n178 0

predecessors

n257 0

n377 (Cmp):

n138 (Or):

successors

n100 0

predecessors

n139 0

n64 0

n259 (Shift):

successors

n278 0

predecessors

n46 0

n139 (And):

successors

n138 0

predecessors

n15 0

n32 0

n21 (Shift):

successors

n20 0

predecessors

n89 0

n370 (Sub):

successors

n143 0

n20 (Or):

successors

n187 0

predecessors

n21 0

n22 0

n250 (And):

successors

n85 0

predecessors

n15 0

n10 0

n371 (Or):

successors

n369 0

predecessors

n243 0

n159 0

n23 (Or):

successors

n68 0

predecessors

n25 0

n24 0

n22 (Shift):

successors

n20 0

predecessors

n90 0

n89 0

n25 (Shift):

successors

n23 0

predecessors

n296 0

n40 0

n121 (And):

successors

n313 0

predecessors

n67 0

n242 (Or):

successors

n332 0

predecessors

n167 0

n234 0

n363 (Sub):

successors

n351 0

n24 (Shift):

successors

n23 0

predecessors

n40 0

n122 (Add):

successors

n318 0

predecessors

n123 0

n124 0

n243 (And):

successors

n371 0

predecessors

n15 0

n9 0

n364 (Shift):

successors

n284 0

n27 (Sub):

successors

n13 0

n240 (Or):

successors

n238 0

predecessors

n345 0

n149 0

n361 (Add):

successors

n312 0

predecessors

n264 0

n26 (Add):

successors

n297 0

n13 0

n320 0

n185 0

n186 0

n310 0

n359 0

n12 0

predecessors

n116 0

n87 0

n120 (Sub):

successors

n119 0

n241 (And):

successors

n369 0

predecessors

n15 0

n10 0

n362 (Or):

successors

n332 0

predecessors

n322 0

n355 0

n29 (Shift):

successors

n28 0

predecessors

n9 0

n125 (Shift):

successors

n328 0

predecessors

n126 0

n10 0

n246 (Shift):

successors

n239 0

predecessors

n247 0

n9 0

n367 (Sub):

successors

n275 0

n28 (Or):

successors

n349 0

predecessors

n29 0

n30 0

n126 (Sub):

successors

n125 0

n247 (Sub):

successors

n246 0

n368 (Shift):

successors

n273 0

predecessors

n32 0

n123 (Mem):

successors

n122 0

predecessors

n199 0

n244 (Or):

successors

n299 0

predecessors

n245 0

n208 0

n365 (Sub):

successors

n358 0

n124 (Mem):

successors

n122 0

predecessors

n199 0

n245 (Or):

successors

n244 0

predecessors

n278 0

n291 0

n366 (Shift):

successors

n328 0

predecessors

n10 0

n129 (Shift):

successors

n127 0

predecessors

n41 0

n329 0

n127 (Or):

successors

n302 0

predecessors

n129 0

n128 0

n248 (Shift):

successors

n291 0

predecessors

n46 0

n249 0

n369 (Or):

successors

n161 0

predecessors

n241 0

n371 0

n128 (Shift):

successors

n127 0

predecessors

n41 0

n249 (Sub):

successors

n248 0

n30 (Shift):

successors

n28 0

predecessors

n316 0

n9 0

n32 (Add):

successors

n180 0

n40 0

n43 0

n31 0

n86 0

n181 0

n55 0

n44 0

n104 0

n346 0

n368 0

n304 0

n139 0

predecessors

n175 0

n52 0

n161 (Add):

successors

n35 0

predecessors

n349 0

n369 0

n282 (Shift):

successors

n77 0

predecessors

n14 0

n375 0

n31 (Shift):

successors

n183 0

predecessors

n32 0

n33 0

n162 (Add):

successors

n160 0

predecessors

n163 0

n67 0

n283 (Sub):

successors

n220 0

n34 (Shift):

successors

n205 0

predecessors

n35 0

n280 (Sub):

successors

n279 0

n33 (Sub):

successors

n31 0

n160 (Add):

successors

n35 0

n40 0

predecessors

n325 0

n162 0

n281 (Shift):

successors

n77 0

predecessors

n14 0

n36 (Add):

successors

n10 0

n89 0

predecessors

n38 0

n37 0

n154 (Add):

successors

n16 0

predecessors

n253 0

n49 0

n275 (Shift):

successors

n170 0

predecessors

n367 0

n35 (Add):

successors

n330 0

n186 0

n351 0

n203 0

n214 0

n311 0

n309 0

n34 0

n109 0

n193 0

n292 0

n270 0

predecessors

n161 0

n160 0

n155 (Shift):

successors

n164 0

predecessors

n18 0

n156 0

n276 (Shift):

successors

n278 0

predecessors

n46 0

n277 0

n38 (Add):

successors

n36 0

predecessors

n70 0

n267 0

n152 (Or):

successors

n151 0

predecessors

n89 0

n273 (Or):

successors

n272 0

predecessors

n368 0

n304 0

n37 (Add):

successors

n36 0

predecessors

n354 0

n153 (Add):

successors

n16 0

predecessors

n343 0

n7 0

n274 (Shift):

successors

n170 0

n158 (Sub):

successors

n157 0

n279 (Shift):

successors

n206 0

predecessors

n14 0

n280 0

n39 (And):

successors

n49 0

predecessors

n41 0

n40 0

n159 (And):

successors

n371 0

predecessors

n9 0

n10 0

n156 (Sub):

successors

n155 0

n277 (Sub):

successors

n276 0

n157 (Shift):

successors

n188 0

predecessors

n158 0

n89 0

n278 (Or):

successors

n245 0

predecessors

n276 0

n259 0

n41 (Add):

successors

n220 0

n342 0

n39 0

n5 0

n129 0

n290 0

n303 0

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n128 0

n65 0

n318 0

predecessors

n312 0

n40 (Add):

successors

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n24 0

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n39 0

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n72 0

n94 0

n73 0

n95 0

predecessors

n32 0

n160 0

n43 (And):

successors

n42 0

predecessors

n32 0

n150 (Sub):

successors

n149 0

n271 (Or):

successors

n175 0

predecessors

n133 0

n169 0

n42 (Or):

successors

n319 0

predecessors

n43 0

n44 0

n151 (And):

successors

n82 0

predecessors

n152 0

n67 0

n272 (Or):

successors

n172 0

predecessors

n273 0

n182 0

n45 (Or):

successors

n197 0

predecessors

n46 0

n44 (And):

successors

n42 0

predecessors

n32 0

n270 (And):

successors

n207 0

predecessors

n35 0

n18 0

n47 (Mem):

successors

n263 0

predecessors

n48 0

n143 (Shift):

successors

n142 0

predecessors

n18 0

n370 0

n264 (Add):

successors

n361 0

predecessors

n176 0

n255 0

n46 (Add):

successors

n210 0

n276 0

n196 0

n248 0

n259 0

n97 0

n45 0

n209 0

predecessors

n10 0

n87 0

n144 (Or):

successors

n227 0

predecessors

n145 0

n146 0

n265 (Or):

successors

n99 0

predecessors

n266 0

n63 0

n49 (Or):

successors

n154 0

predecessors

n39 0

n50 0

n141 (Sub):

successors

n115 0

n262 (Add):

successors

n87 0

predecessors

n263 0

n89 0

n48 (Add):

successors

n47 0

n199 0

n228 0

predecessors

n79 0

n142 (Or):

successors

n117 0

predecessors

n143 0

n17 0

n263 (Add):

successors

n262 0

predecessors

n47 0

n228 0

n147 (Or):

successors

n213 0

predecessors

n148 0

n19 0

n268 (Or):

successors

n267 0

predecessors

n236 0

n289 0

n148 (Shift):

successors

n147 0

predecessors

n331 0

n18 0

n269 (Or):

successors

n267 0

predecessors

n334 0

n6 0

n145 (Or):

successors

n144 0

predecessors

n260 0

n261 0

n266 (Shift):

successors

n265 0

predecessors

n15 0

n357 0

n146 (Or):

successors

n144 0

predecessors

n300 0

n218 0

n267 (Or):

successors

n38 0

predecessors

n268 0

n269 0

n149 (Shift):

successors

n240 0

predecessors

n9 0

n150 0

n0 (Or):

successors

n76 0

predecessors

n1 0

n2 0

n1 (Shift):

successors

n0 0

predecessors

n14 0

n2 (Shift):

successors

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predecessors

n14 0

n96 0

n3 (Or):

successors

n74 0

predecessors

n4 0

n5 0

n4 (And):

successors

n3 0

predecessors

n14 0

n40 0

n5 (And):

successors

n3 0

predecessors

n83 0

n41 0

n6 (Shift):

successors

n269 0

predecessors

n7 0

n50 (And):

successors

n49 0

predecessors

n350 0

n89 0

n7 (Add):

successors

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predecessors

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successors

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predecessors

n32 0

n8 (And):

successors

n173 0

predecessors

n9 0

n10 0

n52 (Add):

successors

n32 0

n67 0

predecessors

n54 0

n53 0

n9 (Add):

successors

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successors

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predecessors

n9 0

n54 (Add):

successors

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n183 (Or):

successors

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predecessors

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n53 (Add):

successors

n52 0

predecessors

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n184 (Or):

successors

n258 0

predecessors

n185 0

n186 0

n56 (Or):

successors

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predecessors

n57 0

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n181 (Shift):

successors

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predecessors

n229 0

n32 0

n55 (And):

successors

n85 0

predecessors

n10 0

n32 0

n182 (Or):

successors

n272 0

predecessors

n179 0

n183 0

n58 (Mem):

successors

n308 0

predecessors

n59 0

n176 (Mem):

successors

n264 0

predecessors

n105 0

n297 (Shift):

successors

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predecessors

n298 0

n26 0

n57 (Or):

successors

n56 0

predecessors

n320 0

n359 0

n177 (Or):

successors

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predecessors

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n298 (Sub):

successors

n297 0

n174 (Or):

successors

n173 0

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n295 (Sub):

successors

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n59 (Add):

successors

n58 0

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n175 (Add):

successors

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n296 (Sub):

successors

n25 0

n178 (Or):

successors

n177 0

predecessors

n335 0

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n299 (Add):

successors

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n179 (Or):

successors

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predecessors

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n10 0

n60 (Or):

successors

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n61 0

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n290 (Or):

successors

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predecessors

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n63 (Shift):

successors

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predecessors

n15 0

n62 (Shift):

successors

n60 0

predecessors

n251 0

n10 0

n65 (Shift):

successors

n219 0

predecessors

n41 0

n172 (Add):

successors

n15 0

predecessors

n272 0

n319 0

n293 (Mem):

successors

n343 0

predecessors

n79 0

n64 (And):

successors

n138 0

predecessors

n15 0

n173 (Or):

successors

n191 0

predecessors

n174 0

n8 0

n294 (Shift):

successors

n260 0

predecessors

n67 0

n67 (Add):

successors

n121 0

n352 0

n189 0

n300 0

n218 0

n358 0

n140 0

n151 0

n162 0

n294 0

n66 0

predecessors

n52 0

n170 (Or):

successors

n169 0

predecessors

n275 0

n274 0

n291 (Or):

successors

n245 0

predecessors

n248 0

n97 0

n66 (And):

successors

n70 0

predecessors

n7 0

n67 0

n171 (Or):

successors

n169 0

predecessors

n306 0

n307 0

n292 (Shift):

successors

n314 0

predecessors

n35 0

n69 (Or):

successors

n68 0

predecessors

n72 0

n73 0

n165 (Shift):

successors

n164 0

predecessors

n18 0

n286 (Sub):

successors

n95 0

n68 (Or):

successors

n253 0

predecessors

n69 0

n23 0

n166 (And):

successors

n207 0

predecessors

n18 0

n9 0

n287 (Or):

successors

n302 0

predecessors

n288 0

n219 0

n163 (Add):

successors

n162 0

predecessors

n341 0

n211 0

n284 (Or):

successors

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predecessors

n364 0

n91 0

n164 (Or):

successors

n213 0

predecessors

n165 0

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n285 (Mem):

successors

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predecessors

n59 0

n169 (Or):

successors

n271 0

predecessors

n170 0

n171 0

n167 (Shift):

successors

n242 0

predecessors

n15 0

n288 (Or):

successors

n287 0

predecessors

n303 0

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n168 (Shift):

successors

n206 0

predecessors

n14 0

n289 (Or):

successors

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n344 0

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n70 (Or):

successors

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predecessors

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n72 (Shift):

successors

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n71 (And):

successors

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predecessors

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n74 (Add):

successors

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predecessors

n3 0

n75 0

n73 (Shift):

successors

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predecessors

n101 0

n40 0

n76 (Or):

successors

n75 0

predecessors

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n77 0

n75 (Or):

successors

n74 0

predecessors

n206 0

n76 0

n78 (Mem):

successors

n343 0

predecessors

n79 0

n77 (Or):

successors

n76 0

predecessors

n282 0

n281 0

n198 (Add):

predecessors

n199 0

n79 (Add):

successors

n48 0

n293 0

n78 0

predecessors

n212 0

n199 (Add):

successors

n198 0

n123 0

n124 0

predecessors

n48 0

n196 (And):

successors

n195 0

predecessors

n14 0

n46 0

n197 (And):

successors

n195 0

predecessors

n40 0

n45 0

n81 (Or):

successors

n80 0

predecessors

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n188 0

n80 (Add):

successors

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n81 0

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n83 (Or):

successors

n5 0

predecessors

n14 0

n190 (Sub):

successors

n189 0

n82 (Or):

successors

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n108 0

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n191 (Add):

successors

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successors

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predecessors

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n84 (Or):

successors

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predecessors

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n87 (Add):

successors

n46 0

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predecessors

n262 0

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n194 (Sub):

successors

n193 0

n86 (And):

successors

n84 0

predecessors

n15 0

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n195 (Or):

successors

n299 0

predecessors

n196 0

n197 0

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successors

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predecessors

n36 0

n192 (Or):

successors

n191 0

predecessors

n204 0

n205 0

n88 (Add):

successors

n15 0

n7 0

predecessors

n226 0

n227 0

n193 (Shift):

successors

n205 0

predecessors

n35 0

n194 0

n187 (Or):

successors

n81 0

predecessors

n221 0

n20 0

n188 (Or):

successors

n81 0

predecessors

n333 0

n157 0

n185 (And):

successors

n184 0

predecessors

n26 0

n18 0

n186 (And):

successors

n184 0

predecessors

n35 0

n26 0

n189 (Shift):

successors

n260 0

predecessors

n190 0

n67 0

Nr of Nodes : 378

ASAP

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n338 : [0:0]

n215 : [0:0]

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n120 : [0:0]

n202 : [0:1]

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n365 : [0:0]

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n329 : [0:0]

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n285 : [1:2]

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n115 : [1:1]

n256 : [1:1]

n135 : [1:1]

n223 : [1:1]

n307 : [1:1]

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n133 : [2:2]

n130 : [2:2]

n284 : [2:2]

n323 : [2:3]

n324 : [2:2]

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n113 : [2:2]

n105 : [2:2]

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n177 : [3:3]

n169 : [3:3]

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n147 : [44:44]

n5 : [44:44]

n206 : [44:44]

n207 : [44:44]

n77 : [44:44]

n213 : [45:45]

n3 : [45:45]

n118 : [45:45]

n76 : [45:45]

n117 : [46:46]

n75 : [46:46]

n116 : [47:47]

n74 : [47:47]

n87 : [48:48]

n46 : [49:49]

n26 : [49:49]

n97 : [50:50]

n45 : [50:50]

n12 : [50:50]

n297 : [50:50]

n210 : [50:50]

n276 : [50:50]

n13 : [50:50]

n320 : [50:50]

n196 : [50:50]

n185 : [50:50]

n186 : [50:50]

n310 : [50:50]

n248 : [50:50]

n259 : [50:50]

n359 : [50:50]

n209 : [50:50]

n57 : [51:51]

n197 : [51:51]

n233 : [51:51]

n278 : [51:51]

n184 : [51:51]

n291 : [51:51]

n208 : [51:51]

n11 : [51:51]

n258 : [52:52]

n245 : [52:52]

n195 : [52:52]

n56 : [52:52]

n232 : [53:53]

n244 : [53:53]

n299 : [54:54]

n337 : [54:54]

n317 : [55:55]

n353 : [56:56]

n336 : [56:56]

Registered resources

CMP 0 2.1

OR 2 16.0

OR 51 14.0

OR 44 14.0

OR 37 14.0

OR 30 14.0

OR 23 14.0

OR 16 14.0

OR 9 14.0

OR 52 8.0

OR 45 8.0

OR 38 8.0

OR 31 8.0

OR 24 8.0

OR 17 8.0

OR 10 8.0

OR 53 4.0

OR 46 4.0

OR 39 4.0

OR 32 4.0

OR 25 4.0

OR 18 4.0

OR 11 4.0

OR 4 4.0

OR 3 4.0

OR 50 2.0

OR 43 2.0

OR 36 2.0

OR 29 2.0

OR 22 2.0

OR 15 2.0

OR 8 2.0

OR 1 2.0

OR 0 2.0

ADD 5 5.0

ADD 7 4.0

ADD 6 4.0

ADD 4 3.0

ADD 3 3.0

ADD 56 2.0

ADD 54 2.0

ADD 49 2.0

ADD 47 2.0

ADD 42 2.0

ADD 40 2.0

ADD 35 2.0

ADD 33 2.0

ADD 28 2.0

ADD 26 2.0

ADD 21 2.0

ADD 19 2.0

ADD 14 2.0

ADD 12 2.0

ADD 8 2.0

ADD 2 2.0

ADD 0 2.0

ADD 55 1.0

ADD 48 1.0

ADD 41 1.0

ADD 34 1.0

ADD 29 1.0

ADD 27 1.0

ADD 22 1.0

ADD 20 1.0

ADD 15 1.0

ADD 13 1.0

ADD 9 1.0

ADD 1 1.0

SH 50 24.0

SH 43 24.0

SH 36 24.0

SH 29 24.0

SH 22 24.0

SH 15 24.0

SH 8 24.0

SH 1 12.0

SH 0 12.0

AND 0 10.0

AND 43 8.0

AND 36 8.0

AND 29 8.0

AND 22 8.0

AND 15 8.0

AND 8 8.0

AND 50 6.0

AND 51 2.0

AND 44 2.0

AND 37 2.0

AND 30 2.0

AND 23 2.0

AND 16 2.0

AND 9 2.0

AND 1 2.0

MEM 7 36.0

MEM 6 36.0

MEM 5 36.0

MEM 4 36.0

MEM 3 36.0

MEM 2 36.0

MEM 1 36.0

MEM 8 18.0

MEM 0 18.0

SUB 0 67.19999999999999

cost = 160.29999999999998

ALAP

Found schedule of length 57

n141 : [0:0]

n257 : [0:0]

n114 : [1:1]

n335 : [1:1]

n115 : [1:1]

n92 : [1:1]

n256 : [1:1]

n364 : [2:2]

n202 : [2:3]

n137 : [2:2]

n178 : [2:2]

n201 : [2:3]

n113 : [2:2]

n91 : [2:2]

n132 : [3:3]

n177 : [3:3]

n284 : [3:3]

n131 : [3:3]

n130 : [4:4]

n252 : [4:4]

n200 : [4:4]

n54 : [5:5]

n53 : [5:5]

n52 : [6:6]

n365 : [7:7]

n190 : [7:7]

n67 : [7:7]

n352 : [8:8]

n59 : [8:8]

n367 : [8:8]

n301 : [8:8]

n189 : [8:8]

n358 : [8:8]

n348 : [8:8]

n294 : [8:8]

n58 : [9:10]

n275 : [9:9]

n285 : [9:10]

n274 : [9:9]

n300 : [9:9]

n218 : [9:9]

n306 : [9:9]

n260 : [9:9]

n261 : [9:9]

n360 : [9:9]

n140 : [9:9]

n307 : [9:9]

n121 : [10:10]

n224 : [10:10]

n225 : [10:10]

n145 : [10:10]

n134 : [10:10]

n146 : [10:10]

n135 : [10:10]

n347 : [10:10]

n170 : [10:10]

n171 : [10:10]

n144 : [11:11]

n133 : [11:11]

n169 : [11:11]

n313 : [11:11]

n223 : [11:11]

n338 : [11:11]

n308 : [11:11]

n324 : [12:12]

n226 : [12:12]

n227 : [12:12]

n271 : [12:12]

n175 : [13:13]

n88 : [13:13]

n231 : [14:14]

n120 : [14:14]

n7 : [14:14]

n229 : [14:14]

n32 : [14:14]

n33 : [14:14]

n373 : [15:15]

n230 : [15:15]

n103 : [15:15]

n346 : [15:15]

n344 : [15:15]

n305 : [15:15]

n119 : [15:15]

n180 : [15:15]

n237 : [15:15]

n31 : [15:15]

n181 : [15:15]

n6 : [16:16]

n43 : [16:16]

n183 : [16:16]

n44 : [16:16]

n323 : [16:17]

n334 : [16:16]

n136 : [16:16]

n368 : [16:16]

n236 : [16:16]

n102 : [16:17]

n289 : [16:16]

n179 : [16:16]

n304 : [16:16]

n374 : [17:17]

n273 : [17:17]

n268 : [17:17]

n269 : [17:17]

n71 : [17:17]

n42 : [17:17]

n66 : [17:17]

n182 : [17:17]

n70 : [18:18]

n354 : [18:18]

n267 : [18:18]

n272 : [18:18]

n319 : [18:18]

n38 : [19:19]

n37 : [19:19]

n172 : [19:19]

n36 : [20:20]

n15 : [20:20]

n235 : [20:20]

n356 : [20:20]

n295 : [21:21]

n90 : [21:21]

n357 : [21:21]

n167 : [21:21]

n234 : [21:21]

n322 : [21:21]

n355 : [21:21]

n89 : [21:21]

n242 : [22:22]

n362 : [22:22]

n158 : [22:22]

n112 : [22:22]

n222 : [22:22]

n266 : [22:22]

n105 : [22:22]

n63 : [22:22]

n139 : [22:22]

n21 : [22:22]

n64 : [22:22]

n22 : [22:22]

n176 : [23:24]

n221 : [23:23]

n265 : [23:23]

n152 : [23:23]

n104 : [23:23]

n255 : [23:24]

n332 : [23:23]

n333 : [23:23]

n157 : [23:23]

n138 : [23:23]

n20 : [23:23]

n187 : [24:24]

n188 : [24:24]

n100 : [24:24]

n108 : [24:24]

n151 : [24:24]

n99 : [24:24]

n264 : [25:25]

n81 : [25:25]

n82 : [25:25]

n98 : [25:25]

n111 : [26:26]

n361 : [26:26]

n126 : [26:26]

n80 : [26:26]

n10 : [26:26]

n110 : [27:27]

n372 : [27:27]

n251 : [27:27]

n125 : [27:27]

n312 : [27:27]

n366 : [27:27]

n327 : [28:28]

n61 : [28:28]

n107 : [28:28]

n328 : [28:28]

n41 : [28:28]

n62 : [28:28]

n283 : [28:28]

n250 : [28:28]

n55 : [28:28]

n220 : [29:29]

n212 : [29:29]

n217 : [29:29]

n60 : [29:29]

n303 : [29:29]

n85 : [29:29]

n106 : [29:29]

n65 : [29:29]

n86 : [29:29]

n329 : [29:29]

n341 : [30:31]

n211 : [30:31]

n288 : [30:30]

n129 : [30:30]

n290 : [30:30]

n216 : [30:30]

n84 : [30:30]

n128 : [30:30]

n219 : [30:30]

n287 : [31:31]

n342 : [31:31]

n340 : [31:31]

n339 : [31:31]

n127 : [31:31]

n163 : [32:32]

n247 : [32:32]

n302 : [32:32]

n326 : [32:32]

n9 : [32:32]

n150 : [32:32]

n345 : [33:33]

n246 : [33:33]

n316 : [33:33]

n149 : [33:33]

n325 : [33:33]

n51 : [33:33]

n162 : [33:33]

n243 : [34:34]

n240 : [34:34]

n29 : [34:34]

n159 : [34:34]

n239 : [34:34]

n30 : [34:34]

n160 : [34:34]

n296 : [35:35]

n241 : [35:35]

n28 : [35:35]

n101 : [35:35]

n238 : [35:35]

n40 : [35:35]

n371 : [35:35]

n286 : [36:36]

n25 : [36:36]

n79 : [36:36]

n24 : [36:36]

n72 : [36:36]

n349 : [36:36]

n369 : [36:36]

n73 : [36:36]

n69 : [37:37]

n350 : [37:37]

n94 : [37:37]

n95 : [37:37]

n293 : [37:38]

n161 : [37:37]

n78 : [37:38]

n23 : [37:37]

n363 : [38:38]

n68 : [38:38]

n35 : [38:38]

n39 : [38:38]

n50 : [38:38]

n93 : [38:38]

n215 : [38:38]

n253 : [39:39]

n49 : [39:39]

n351 : [39:39]

n214 : [39:39]

n343 : [39:39]

n309 : [39:39]

n194 : [39:39]

n292 : [39:39]

n154 : [40:40]

n330 : [40:40]

n153 : [40:40]

n311 : [40:40]

n314 : [40:40]

n315 : [40:40]

n34 : [40:40]

n193 : [40:40]

n16 : [41:41]

n174 : [41:41]

n8 : [41:41]

n204 : [41:41]

n205 : [41:41]

n14 : [42:42]

n375 : [42:42]

n96 : [42:42]

n173 : [42:42]

n192 : [42:42]

n48 : [43:43]

n1 : [43:43]

n2 : [43:43]

n191 : [43:43]

n282 : [43:43]

n280 : [43:43]

n281 : [43:43]

n47 : [44:45]

n331 : [44:44]

n0 : [44:44]

n18 : [44:44]

n279 : [44:44]

n156 : [44:44]

n168 : [44:44]

n228 : [44:45]

n83 : [44:44]

n77 : [44:44]

n165 : [45:45]

n155 : [45:45]

n148 : [45:45]

n4 : [45:45]

n19 : [45:45]

n5 : [45:45]

n206 : [45:45]

n370 : [45:45]

n76 : [45:45]

n143 : [46:46]

n166 : [46:46]

n263 : [46:46]

n164 : [46:46]

n147 : [46:46]

n17 : [46:46]

n3 : [46:46]

n75 : [46:46]

n270 : [46:46]

n262 : [47:47]

n142 : [47:47]

n213 : [47:47]

n207 : [47:47]

n74 : [47:47]

n109 : [47:47]

n118 : [48:48]

n117 : [48:48]

n87 : [48:48]

n46 : [49:49]

n277 : [49:49]

n116 : [49:49]

n249 : [49:49]

n199 : [50:50]

n254 : [50:50]

n276 : [50:50]

n27 : [50:50]

n26 : [50:50]

n321 : [50:50]

n259 : [50:50]

n248 : [50:50]

n97 : [50:50]

n298 : [51:51]

n320 : [51:51]

n210 : [51:51]

n13 : [51:51]

n123 : [51:52]

n124 : [51:52]

n278 : [51:51]

n359 : [51:51]

n45 : [51:51]

n291 : [51:51]

n12 : [51:51]

n209 : [51:51]

n297 : [52:52]

n57 : [52:52]

n185 : [52:52]

n196 : [52:52]

n186 : [52:52]

n197 : [52:52]

n310 : [52:52]

n245 : [52:52]

n208 : [52:52]

n11 : [52:52]

n122 : [53:53]

n203 : [53:53]

n233 : [53:53]

n244 : [53:53]

n184 : [53:53]

n195 : [53:53]

n56 : [53:53]

n232 : [54:54]

n258 : [54:54]

n299 : [54:54]

n318 : [54:54]

n317 : [55:55]

n337 : [55:55]

n198 : [56:56]

n353 : [56:56]

n376 : [56:56]

n377 : [56:56]

n336 : [56:56]

Registered resources

CMP 56 2.1

OR 23 12.0

OR 53 10.0

OR 30 10.0

OR 17 10.0

OR 16 10.0

OR 11 10.0

OR 52 8.0

OR 46 8.0

OR 24 8.0

OR 18 8.0

OR 10 8.0

OR 51 6.0

OR 47 6.0

OR 44 6.0

OR 41 6.0

OR 37 6.0

OR 35 6.0

OR 29 6.0

OR 9 6.0

OR 2 6.0

OR 54 4.0

OR 48 4.0

OR 45 4.0

OR 42 4.0

OR 40 4.0

OR 39 4.0

OR 38 4.0

OR 36 4.0

OR 34 4.0

OR 32 4.0

OR 31 4.0

OR 28 4.0

OR 25 4.0

OR 22 4.0

OR 12 4.0

OR 4 4.0

OR 3 4.0

ADD 56 4.0

ADD 26 3.0

ADD 19 3.0

ADD 55 2.0

ADD 54 2.0

ADD 50 2.0

ADD 49 2.0

ADD 47 2.0

ADD 43 2.0

ADD 40 2.0

ADD 33 2.0

ADD 32 2.0

ADD 25 2.0

ADD 20 2.0

ADD 14 2.0

ADD 13 2.0

ADD 12 2.0

ADD 5 2.0

ADD 53 1.0

ADD 48 1.0

ADD 46 1.0

ADD 44 1.0

ADD 42 1.0

ADD 41 1.0

ADD 39 1.0

ADD 38 1.0

ADD 37 1.0

ADD 36 1.0

ADD 35 1.0

ADD 34 1.0

ADD 31 1.0

ADD 29 1.0

ADD 28 1.0

ADD 27 1.0

ADD 22 1.0

ADD 21 1.0

ADD 18 1.0

ADD 15 1.0

ADD 11 1.0

ADD 8 1.0

ADD 7 1.0

ADD 6 1.0

ADD 4 1.0

SH 15 16.0

SH 51 12.0

SH 22 12.0

SH 9 12.0

SH 50 8.0

SH 45 8.0

SH 43 8.0

SH 39 8.0

SH 36 8.0

SH 33 8.0

SH 29 8.0

SH 27 8.0

SH 21 8.0

SH 16 8.0

SH 8 8.0

SH 1 8.0

SH 52 4.0

SH 46 4.0

SH 44 4.0

SH 40 4.0

SH 37 4.0

SH 34 4.0

SH 30 4.0

SH 28 4.0

SH 23 4.0

SH 10 4.0

SH 2 4.0

AND 52 8.0

AND 10 8.0

AND 17 6.0

AND 46 4.0

AND 45 4.0

AND 40 4.0

AND 38 4.0

AND 34 4.0

AND 31 4.0

AND 28 4.0

AND 24 4.0

AND 22 4.0

AND 16 4.0

AND 3 4.0

AND 53 2.0

AND 47 2.0

AND 41 2.0

AND 35 2.0

AND 29 2.0

AND 23 2.0

AND 11 2.0

MEM 52 18.0

MEM 51 18.0

MEM 45 18.0

MEM 44 18.0

MEM 38 18.0

MEM 37 18.0

MEM 31 18.0

MEM 30 18.0

MEM 24 18.0

MEM 23 18.0

MEM 17 18.0

MEM 16 18.0

MEM 10 18.0

MEM 9 18.0

MEM 3 18.0

MEM 2 18.0

SUB 14 5.6

SUB 50 4.199999999999999

SUB 21 4.199999999999999

SUB 8 4.199999999999999

SUB 49 2.8

SUB 44 2.8

SUB 42 2.8

SUB 38 2.8

SUB 35 2.8

SUB 32 2.8

SUB 28 2.8

SUB 26 2.8

SUB 20 2.8

SUB 15 2.8

SUB 7 2.8

SUB 0 2.8

SUB 51 1.4

SUB 45 1.4

SUB 43 1.4

SUB 39 1.4

SUB 36 1.4

SUB 33 1.4

SUB 29 1.4

SUB 27 1.4

SUB 22 1.4

SUB 9 1.4

SUB 1 1.4

cost = 65.7

# SHA256Digest-processBlock-735-750

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64392:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SHA256Digest-processBlock-735-750.dot

Scheduling scheduler-framework-master/graphs/SHA256Digest-processBlock-735-750.dot

n0 (Add):

n1 (Cmp):

n2 (Mem):

Nr of Nodes : 3

ASAP

Found schedule of length 2

n0 : [0:0]

n1 : [0:0]

n2 : [0:1]

Registered resources

MEM 1 9.0

MEM 0 9.0

CMP 0 2.1

ADD 0 1.0

cost = 12.1

ALAP

Found schedule of length 2

n2 : [0:1]

n0 : [1:1]

n1 : [1:1]

Registered resources

MEM 1 9.0

MEM 0 9.0

CMP 1 2.1

ADD 1 1.0

cost = 12.1

# SIMD512Digest-compress-63-471

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64406:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-compress-63-471.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-compress-63-471.dot

n90 (Add):

successors

n4 0

n92 (Add):

successors

n101 0

predecessors

n94 0

n93 0

n91 (Add):

successors

n4 0

n94 (Add):

successors

n92 0

n93 (Add):

successors

n92 0

n96 (Add):

successors

n85 0

n95 (Add):

successors

n85 0

n10 (Add):

successors

n72 0

predecessors

n11 0

n98 (Add):

successors

n86 0

n97 (Add):

successors

n86 0

n12 (Sub):

successors

n100 0

predecessors

n14 0

n13 0

n11 (Add):

successors

n10 0

n99 (Add):

successors

n16 0

n14 (Add):

successors

n37 0

n12 0

predecessors

n63 0

n64 0

n13 (Mem):

successors

n37 0

n12 0

predecessors

n1 0

n60 0

n16 (Add):

successors

n15 0

predecessors

n99 0

n15 (Mem):

successors

n19 0

n41 0

predecessors

n16 0

n1 0

n18 (Add):

successors

n17 0

predecessors

n89 0

n88 0

n17 (Mem):

predecessors

n1 0

n18 0

n19 0

n19 (Sub):

successors

n17 0

predecessors

n15 0

n59 0

n21 (Shift):

successors

n7 0

predecessors

n87 0

n20 (And):

successors

n7 0

predecessors

n68 0

n23 (Mem):

successors

n48 0

n61 0

n52 0

n73 0

n42 0

n22 0

n33 0

n77 0

n22 (Mem):

successors

n68 0

predecessors

n24 0

n23 0

n25 (Shift):

successors

n59 0

predecessors

n26 0

n24 (Add):

successors

n22 0

n27 (Add):

successors

n6 0

predecessors

n56 0

n26 (Mul):

successors

n25 0

predecessors

n61 0

n8 0

n29 (Add):

successors

n28 0

n28 (Add):

successors

n36 0

predecessors

n29 0

n30 0

n30 (Add):

successors

n28 0

n32 (Add):

successors

n31 0

n55 0

predecessors

n58 0

n49 0

n31 (Sub):

successors

n84 0

predecessors

n0 0

n32 0

n34 (Add):

successors

n33 0

n33 (Mem):

successors

n35 0

predecessors

n23 0

n34 0

n36 (Mem):

successors

n35 0

n51 0

predecessors

n1 0

n28 0

n35 (Mul):

successors

n63 0

predecessors

n36 0

n33 0

n38 (Add):

successors

n2 0

n37 (Add):

successors

n72 0

predecessors

n14 0

n13 0

n39 (Mem):

predecessors

n1 0

n41 0

n40 0

n41 (Add):

successors

n39 0

predecessors

n15 0

n59 0

n40 (Add):

successors

n39 0

predecessors

n83 0

n43 (Add):

successors

n42 0

n42 (Mem):

successors

n87 0

predecessors

n43 0

n23 0

n45 (Mem):

predecessors

n46 0

n1 0

n5 0

n44 (Sub):

successors

n101 0

predecessors

n6 0

n7 0

n47 (Mul):

successors

n58 0

predecessors

n48 0

n3 0

n46 (Add):

successors

n45 0

predecessors

n65 0

n49 (And):

successors

n32 0

predecessors

n50 0

n48 (Mem):

successors

n47 0

predecessors

n76 0

n23 0

n0 (Mem):

successors

n31 0

n55 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

n3 0

n6 0

n72 0

n8 0

n84 0

n53 0

n45 0

n36 0

n13 0

n79 0

n100 0

n15 0

n17 0

n39 0

n101 0

n2 (Add):

successors

n0 0

predecessors

n38 0

n3 (Mem):

successors

n47 0

n50 0

predecessors

n1 0

n4 0

n4 (Add):

successors

n3 0

predecessors

n90 0

n91 0

n5 (Add):

successors

n45 0

predecessors

n6 0

n7 0

n6 (Mem):

successors

n5 0

n44 0

predecessors

n27 0

n1 0

n50 (Mul):

successors

n49 0

predecessors

n3 0

n77 0

n7 (Add):

successors

n5 0

n44 0

predecessors

n21 0

n20 0

n8 (Mem):

successors

n26 0

n82 0

predecessors

n1 0

n9 0

n52 (Mem):

successors

n51 0

predecessors

n57 0

n23 0

n9 (Add):

successors

n8 0

predecessors

n67 0

n66 0

n51 (Mul):

successors

n64 0

predecessors

n36 0

n52 0

n54 (Add):

successors

n53 0

predecessors

n75 0

n53 (Mem):

predecessors

n1 0

n54 0

n55 0

n56 (Add):

successors

n27 0

n55 (Add):

successors

n53 0

predecessors

n0 0

n32 0

n58 (Shift):

successors

n32 0

predecessors

n47 0

n57 (Add):

successors

n52 0

n59 (Add):

successors

n19 0

n41 0

predecessors

n25 0

n81 0

n61 (Mem):

successors

n26 0

predecessors

n62 0

n23 0

n60 (Add):

successors

n13 0

predecessors

n80 0

n63 (And):

successors

n14 0

predecessors

n35 0

n62 (Add):

successors

n61 0

n65 (Add):

successors

n46 0

n64 (Shift):

successors

n14 0

predecessors

n51 0

n67 (Add):

successors

n9 0

n66 (Add):

successors

n9 0

n69 (Add):

successors

n100 0

predecessors

n70 0

n71 0

n68 (Mul):

successors

n20 0

predecessors

n79 0

n22 0

n70 (Add):

successors

n69 0

n72 (Mem):

predecessors

n1 0

n37 0

n10 0

n71 (Add):

successors

n69 0

n74 (Add):

successors

n73 0

n73 (Mem):

successors

n82 0

predecessors

n74 0

n23 0

n76 (Add):

successors

n48 0

n75 (Add):

successors

n54 0

n78 (Add):

successors

n77 0

n77 (Mem):

successors

n50 0

predecessors

n23 0

n78 0

n79 (Mem):

successors

n68 0

n87 0

predecessors

n1 0

n86 0

n81 (And):

successors

n59 0

predecessors

n82 0

n80 (Add):

successors

n60 0

n83 (Add):

successors

n40 0

n82 (Mul):

successors

n81 0

predecessors

n8 0

n73 0

n85 (Add):

successors

n84 0

predecessors

n96 0

n95 0

n84 (Mem):

predecessors

n1 0

n85 0

n31 0

n87 (Mul):

successors

n21 0

predecessors

n79 0

n42 0

n86 (Add):

successors

n79 0

predecessors

n98 0

n97 0

n89 (Add):

successors

n18 0

n88 (Add):

successors

n18 0

n100 (Mem):

predecessors

n69 0

n1 0

n12 0

n103 (Cmp):

n104 (Cmp):

n101 (Mem):

predecessors

n1 0

n92 0

n44 0

n102 (Add):

n105 (Add):

Nr of Nodes : 106

ASAP

Found schedule of length 13

n1 : [0:1]

n90 : [0:0]

n70 : [0:0]

n91 : [0:0]

n94 : [0:0]

n93 : [0:0]

n71 : [0:0]

n96 : [0:0]

n30 : [0:0]

n74 : [0:0]

n95 : [0:0]

n98 : [0:0]

n76 : [0:0]

n97 : [0:0]

n75 : [0:0]

n34 : [0:0]

n56 : [0:0]

n78 : [0:0]

n11 : [0:0]

n99 : [0:0]

n57 : [0:0]

n38 : [0:0]

n80 : [0:0]

n83 : [0:0]

n62 : [0:0]

n43 : [0:0]

n65 : [0:0]

n23 : [0:1]

n67 : [0:0]

n89 : [0:0]

n66 : [0:0]

n88 : [0:0]

n24 : [0:0]

n29 : [0:0]

n103 : [0:0]

n104 : [0:0]

n102 : [0:0]

n105 : [0:0]

n2 : [1:1]

n4 : [1:1]

n92 : [1:1]

n60 : [1:1]

n85 : [1:1]

n40 : [1:1]

n9 : [1:1]

n54 : [1:1]

n10 : [1:1]

n86 : [1:1]

n69 : [1:1]

n46 : [1:1]

n27 : [1:1]

n16 : [1:1]

n18 : [1:1]

n28 : [1:1]

n0 : [2:3]

n3 : [2:3]

n61 : [2:3]

n6 : [2:3]

n52 : [2:3]

n8 : [2:3]

n73 : [2:3]

n42 : [2:3]

n33 : [2:3]

n77 : [2:3]

n22 : [2:3]

n36 : [2:3]

n13 : [2:3]

n79 : [2:3]

n48 : [2:3]

n15 : [2:3]

n47 : [4:7]

n35 : [4:7]

n68 : [4:7]

n26 : [4:7]

n50 : [4:7]

n82 : [4:7]

n51 : [4:7]

n87 : [4:7]

n58 : [8:8]

n25 : [8:8]

n49 : [8:8]

n81 : [8:8]

n63 : [8:8]

n21 : [8:8]

n20 : [8:8]

n64 : [8:8]

n14 : [9:9]

n59 : [9:9]

n7 : [9:9]

n32 : [9:9]

n37 : [10:10]

n19 : [10:10]

n5 : [10:10]

n41 : [10:10]

n31 : [10:10]

n12 : [10:10]

n44 : [10:10]

n55 : [10:10]

n100 : [11:12]

n17 : [11:12]

n39 : [11:12]

n101 : [11:12]

n72 : [11:12]

n84 : [11:12]

n53 : [11:12]

n45 : [11:12]

Registered resources

AND 8 8.0

SH 8 8.0

CMP 0 4.2

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MUL 4 18.4

ADD 0 34.0

ADD 1 16.0

ADD 10 4.0

ADD 9 4.0

SUB 10 5.6

MEM 3 144.0

MEM 2 144.0

MEM 12 72.0

MEM 11 72.0

MEM 1 18.0

MEM 0 18.0

cost = 222.2

ALAP

Found schedule of length 13

n1 : [0:1]

n90 : [0:0]

n29 : [0:0]

n91 : [0:0]

n30 : [0:0]

n98 : [0:0]

n97 : [0:0]

n23 : [0:1]

n67 : [0:0]

n66 : [0:0]

n4 : [1:1]

n74 : [1:1]

n62 : [1:1]

n9 : [1:1]

n76 : [1:1]

n43 : [1:1]

n86 : [1:1]

n34 : [1:1]

n78 : [1:1]

n57 : [1:1]

n24 : [1:1]

n28 : [1:1]

n36 : [2:3]

n79 : [2:3]

n48 : [2:3]

n3 : [2:3]

n61 : [2:3]

n8 : [2:3]

n52 : [2:3]

n73 : [2:3]

n42 : [2:3]

n33 : [2:3]

n22 : [2:3]

n77 : [2:3]

n47 : [4:7]

n35 : [4:7]

n68 : [4:7]

n26 : [4:7]

n50 : [4:7]

n82 : [4:7]

n51 : [4:7]

n87 : [4:7]

n38 : [6:6]

n80 : [6:6]

n56 : [6:6]

n99 : [6:6]

n27 : [7:7]

n16 : [7:7]

n2 : [7:7]

n60 : [7:7]

n58 : [8:8]

n25 : [8:8]

n13 : [8:9]

n0 : [8:9]

n49 : [8:8]

n15 : [8:9]

n81 : [8:8]

n6 : [8:9]

n63 : [8:8]

n21 : [8:8]

n20 : [8:8]

n64 : [8:8]

n70 : [9:9]

n94 : [9:9]

n83 : [9:9]

n93 : [9:9]

n7 : [9:9]

n71 : [9:9]

n96 : [9:9]

n95 : [9:9]

n32 : [9:9]

n65 : [9:9]

n75 : [9:9]

n89 : [9:9]

n11 : [9:9]

n88 : [9:9]

n14 : [9:9]

n59 : [9:9]

n92 : [10:10]

n5 : [10:10]

n41 : [10:10]

n85 : [10:10]

n40 : [10:10]

n10 : [10:10]

n54 : [10:10]

n31 : [10:10]

n12 : [10:10]

n44 : [10:10]

n55 : [10:10]

n69 : [10:10]

n46 : [10:10]

n37 : [10:10]

n18 : [10:10]

n19 : [10:10]

n100 : [11:12]

n17 : [11:12]

n39 : [11:12]

n101 : [11:12]

n72 : [11:12]

n84 : [11:12]

n53 : [11:12]

n45 : [11:12]

n103 : [12:12]

n104 : [12:12]

n102 : [12:12]

n105 : [12:12]

Registered resources

AND 8 8.0

SH 8 8.0

CMP 12 4.2

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MUL 4 18.4

ADD 9 16.0

ADD 10 12.0

ADD 1 12.0

ADD 0 8.0

ADD 7 4.0

ADD 6 4.0

ADD 12 2.0

SUB 10 5.6

MEM 3 108.0

MEM 2 108.0

MEM 12 72.0

MEM 11 72.0

MEM 9 36.0

MEM 8 36.0

MEM 1 18.0

MEM 0 18.0

cost = 168.2

# SIMD512Digest-compress-1566-1661

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64418:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-compress-1566-1661.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-compress-1566-1661.dot

n0 (And):

successors

n5 0

predecessors

n1 0

n1 (Add):

successors

n14 0

n0 0

predecessors

n8 0

n9 0

n2 (Sub):

successors

n13 0

n12 0

predecessors

n3 0

n4 0

n3 (And):

successors

n2 0

predecessors

n5 0

n4 (Shift):

successors

n2 0

predecessors

n5 0

n5 (Add):

successors

n3 0

n4 0

predecessors

n14 0

n0 0

n6 (Mem):

predecessors

n7 0

n7 (Mem):

successors

n6 0

n8 0

n8 (Mem):

successors

n1 0

predecessors

n7 0

n9 (Mem):

successors

n1 0

predecessors

n16 0

n10 (Sub):

predecessors

n11 0

n12 (And):

successors

n11 0

predecessors

n2 0

n11 (Sub):

successors

n15 0

n10 0

predecessors

n13 0

n12 0

n14 (Shift):

successors

n5 0

predecessors

n1 0

n13 (Shift):

successors

n11 0

predecessors

n2 0

n16 (Mem):

successors

n9 0

n15 (Cmp):

predecessors

n11 0

n18 (Cmp):

n17 (Add):

Nr of Nodes : 19

ASAP

Found schedule of length 12

n16 : [0:1]

n18 : [0:0]

n17 : [0:0]

n7 : [0:1]

n6 : [2:3]

n8 : [2:3]

n9 : [2:3]

n1 : [4:4]

n14 : [5:5]

n0 : [5:5]

n5 : [6:6]

n3 : [7:7]

n4 : [7:7]

n2 : [8:8]

n13 : [9:9]

n12 : [9:9]

n11 : [10:10]

n15 : [11:11]

n10 : [11:11]

Registered resources

SUB 11 1.4

SUB 10 1.4

SUB 8 1.4

AND 9 2.0

AND 7 2.0

AND 5 2.0

ADD 6 1.0

ADD 4 1.0

ADD 0 1.0

SH 9 2.0

SH 7 2.0

SH 5 2.0

CMP 11 2.1

CMP 0 2.1

MEM 3 27.0

MEM 2 27.0

MEM 1 18.0

MEM 0 18.0

cost = 35.5

ALAP

Found schedule of length 12

n16 : [0:1]

n7 : [0:1]

n8 : [2:3]

n9 : [2:3]

n1 : [4:4]

n14 : [5:5]

n0 : [5:5]

n5 : [6:6]

n3 : [7:7]

n4 : [7:7]

n2 : [8:8]

n13 : [9:9]

n12 : [9:9]

n6 : [10:11]

n11 : [10:10]

n15 : [11:11]

n18 : [11:11]

n17 : [11:11]

n10 : [11:11]

Registered resources

SUB 11 1.4

SUB 10 1.4

SUB 8 1.4

AND 9 2.0

AND 7 2.0

AND 5 2.0

ADD 11 1.0

ADD 6 1.0

ADD 4 1.0

SH 9 2.0

SH 7 2.0

SH 5 2.0

CMP 11 4.2

MEM 3 18.0

MEM 2 18.0

MEM 1 18.0

MEM 0 18.0

MEM 11 9.0

MEM 10 9.0

cost = 28.6

# SIMD512Digest-compress-1682-2248

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64432:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-compress-1682-2248.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-compress-1682-2248.dot

n90 (Add):

successors

n123 0

n67 0

n92 (Mem):

successors

n21 0

predecessors

n94 0

n91 (And):

successors

n103 0

predecessors

n80 0

n94 (Add):

successors

n92 0

predecessors

n78 0

n93 (Add):

successors

n161 0

predecessors

n88 0

n96 (And):

successors

n95 0

predecessors

n113 0

n95 (Shift):

successors

n101 0

predecessors

n96 0

n10 (Shift):

successors

n99 0

predecessors

n11 0

n98 (Or):

successors

n172 0

predecessors

n100 0

n99 0

n97 (Mem):

successors

n57 0

predecessors

n44 0

n140 (And):

successors

n150 0

predecessors

n53 0

n12 (And):

successors

n104 0

predecessors

n13 0

n11 (And):

successors

n10 0

predecessors

n51 0

n99 (Or):

successors

n98 0

predecessors

n102 0

n10 0

n14 (Mem):

successors

n136 0

predecessors

n15 0

n132 (Or):

successors

n178 0

predecessors

n133 0

n3 0

n13 (Mem):

successors

n12 0

predecessors

n50 0

n133 (Mem):

successors

n132 0

predecessors

n179 0

n41 0

n16 (Add):

successors

n135 0

predecessors

n17 0

n130 (Mem):

successors

n65 0

predecessors

n17 0

n15 (Add):

successors

n14 0

predecessors

n58 0

n131 (Shift):

successors

n4 0

predecessors

n174 0

n18 (Shift):

successors

n107 0

predecessors

n19 0

n136 (And):

successors

n147 0

predecessors

n14 0

n17 (Mul):

successors

n16 0

n130 0

n114 0

n60 0

predecessors

n71 0

n137 (And):

successors

n56 0

predecessors

n84 0

n134 (Shift):

successors

n107 0

predecessors

n158 0

n19 (And):

successors

n18 0

predecessors

n161 0

n135 (Mem):

successors

n83 0

predecessors

n16 0

n138 (Shift):

successors

n9 0

predecessors

n124 0

n139 (Or):

successors

n168 0

predecessors

n8 0

n40 0

n21 (And):

successors

n20 0

predecessors

n92 0

n20 (Shift):

successors

n160 0

predecessors

n21 0

n23 (Mem):

successors

n22 0

predecessors

n34 0

n22 (And):

successors

n102 0

predecessors

n23 0

n25 (Mul):

successors

n24 0

n79 0

n117 0

n43 0

predecessors

n166 0

n121 (And):

successors

n142 0

predecessors

n122 0

n24 (Add):

successors

n110 0

predecessors

n25 0

n122 (Mem):

successors

n121 0

predecessors

n157 0

n27 (Add):

successors

n26 0

predecessors

n88 0

n26 (Mem):

successors

n158 0

predecessors

n27 0

n120 (Mem):

successors

n2 0

predecessors

n58 0

n29 (Mem):

successors

n28 0

predecessors

n41 0

n151 0

n125 (Mem):

successors

n124 0

predecessors

n180 0

n28 (Or):

successors

n159 0

predecessors

n29 0

n30 0

n126 (Mem):

predecessors

n41 0

n74 0

n127 0

n123 (Mem):

predecessors

n90 0

n41 0

n66 0

n124 (And):

successors

n138 0

predecessors

n125 0

n129 (Add):

successors

n128 0

predecessors

n61 0

n127 (Or):

successors

n126 0

predecessors

n176 0

n73 0

n128 (Mem):

successors

n115 0

predecessors

n129 0

n30 (Or):

successors

n28 0

predecessors

n107 0

n108 0

n32 (Mem):

successors

n31 0

predecessors

n72 0

n41 0

n161 (Mem):

successors

n19 0

predecessors

n93 0

n31 (Or):

successors

n89 0

predecessors

n32 0

n33 0

n162 (Mem):

predecessors

n144 0

n163 0

n41 0

n34 (Add):

successors

n23 0

predecessors

n35 0

n33 (Or):

successors

n31 0

predecessors

n141 0

n75 0

n160 (Or):

successors

n146 0

predecessors

n150 0

n20 0

n36 (And):

successors

n148 0

predecessors

n37 0

n154 (Mem):

successors

n153 0

predecessors

n173 0

n35 (Mul):

successors

n112 0

n52 0

n173 0

n34 0

predecessors

n184 0

n155 (Shift):

successors

n108 0

predecessors

n165 0

n38 (Mem):

successors

n55 0

predecessors

n39 0

n152 (And):

successors

n64 0

predecessors

n116 0

n37 (Mem):

successors

n36 0

predecessors

n117 0

n153 (And):

successors

n181 0

predecessors

n154 0

n158 (And):

successors

n134 0

predecessors

n26 0

n39 (Add):

successors

n38 0

predecessors

n58 0

n159 (Mem):

predecessors

n28 0

n41 0

n151 0

n156 (And):

successors

n108 0

predecessors

n87 0

n157 (Add):

successors

n122 0

predecessors

n61 0

n41 (Mem):

successors

n40 0

n73 0

n32 0

n183 0

n162 0

n89 0

n67 0

n133 0

n29 0

n126 0

n159 0

n123 0

n145 0

n178 0

n168 0

n105 0

n40 (Mem):

successors

n139 0

predecessors

n41 0

n42 0

n43 (Mem):

successors

n86 0

predecessors

n25 0

n150 (Shift):

successors

n160 0

predecessors

n140 0

n42 (Add):

successors

n168 0

n40 0

n151 (Add):

successors

n29 0

n159 0

n45 (Add):

successors

n44 0

n44 (Mul):

successors

n47 0

n70 0

n85 0

n97 0

predecessors

n45 0

n47 (Add):

successors

n46 0

predecessors

n44 0

n143 (And):

successors

n141 0

predecessors

n182 0

n46 (Mem):

successors

n174 0

predecessors

n47 0

n144 (Or):

successors

n162 0

predecessors

n145 0

n146 0

n49 (Add):

successors

n48 0

predecessors

n88 0

n141 (Or):

successors

n33 0

predecessors

n143 0

n142 0

n48 (Mem):

successors

n165 0

predecessors

n49 0

n142 (Shift):

successors

n141 0

predecessors

n121 0

n147 (Shift):

successors

n9 0

predecessors

n136 0

n148 (Shift):

successors

n175 0

predecessors

n36 0

n145 (Mem):

successors

n144 0

predecessors

n163 0

n41 0

n146 (Or):

successors

n144 0

predecessors

n103 0

n160 0

n149 (Add):

successors

n78 0

n0 (Or):

successors

n8 0

predecessors

n1 0

n2 0

n1 (Shift):

successors

n0 0

predecessors

n55 0

n2 (And):

successors

n0 0

predecessors

n120 0

n3 (Or):

successors

n132 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n3 0

predecessors

n131 0

n6 0

n5 (Or):

successors

n3 0

predecessors

n57 0

n56 0

n6 (Shift):

successors

n4 0

predecessors

n7 0

n50 (Add):

successors

n13 0

predecessors

n78 0

n7 (And):

successors

n6 0

predecessors

n69 0

n180 (Add):

successors

n125 0

predecessors

n58 0

n8 (Or):

successors

n139 0

predecessors

n0 0

n9 0

n52 (Add):

successors

n51 0

predecessors

n35 0

n9 (Or):

successors

n8 0

predecessors

n147 0

n138 0

n51 (Mem):

successors

n11 0

predecessors

n52 0

n54 (Add):

successors

n53 0

predecessors

n78 0

n183 (Mem):

predecessors

n41 0

n106 0

n172 0

n53 (Mem):

successors

n140 0

predecessors

n54 0

n184 (Add):

successors

n35 0

n56 (Shift):

successors

n5 0

predecessors

n137 0

n181 (Shift):

successors

n100 0

predecessors

n153 0

n55 (And):

successors

n1 0

predecessors

n38 0

n182 (Mem):

successors

n143 0

predecessors

n61 0

n58 (Mul):

successors

n120 0

n15 0

n39 0

n180 0

predecessors

n59 0

n176 (Or):

successors

n127 0

predecessors

n177 0

n175 0

n57 (And):

successors

n5 0

predecessors

n97 0

n177 (Or):

successors

n176 0

predecessors

n169 0

n118 0

n174 (And):

successors

n131 0

predecessors

n46 0

n59 (Add):

successors

n58 0

n175 (Or):

successors

n176 0

predecessors

n148 0

n86 0

n178 (Mem):

predecessors

n132 0

n179 0

n41 0

n179 (Add):

successors

n133 0

n178 0

n61 (Mul):

successors

n81 0

n157 0

n129 0

n182 0

predecessors

n62 0

n60 (Add):

successors

n116 0

predecessors

n17 0

n63 (Or):

successors

n68 0

predecessors

n65 0

n64 0

n62 (Add):

successors

n61 0

n65 (And):

successors

n63 0

predecessors

n130 0

n172 (Or):

successors

n183 0

predecessors

n105 0

n98 0

n64 (Shift):

successors

n63 0

predecessors

n152 0

n173 (Add):

successors

n154 0

predecessors

n35 0

n67 (Mem):

successors

n66 0

predecessors

n90 0

n41 0

n170 (And):

successors

n169 0

predecessors

n109 0

n66 (Or):

successors

n123 0

predecessors

n68 0

n67 0

n171 (Mem):

successors

n164 0

predecessors

n81 0

n69 (Mem):

successors

n7 0

predecessors

n70 0

n165 (And):

successors

n155 0

predecessors

n48 0

n68 (Or):

successors

n66 0

predecessors

n101 0

n63 0

n166 (Add):

successors

n25 0

n163 (Add):

successors

n145 0

n162 0

n164 (And):

successors

n76 0

predecessors

n171 0

n169 (Shift):

successors

n177 0

predecessors

n170 0

n167 (Add):

successors

n88 0

n168 (Mem):

predecessors

n41 0

n139 0

n42 0

n70 (Add):

successors

n69 0

predecessors

n44 0

n72 (Add):

successors

n32 0

n89 0

n71 (Add):

successors

n17 0

n74 (Add):

successors

n126 0

n73 0

n73 (Mem):

successors

n127 0

predecessors

n41 0

n74 0

n76 (Shift):

successors

n75 0

predecessors

n164 0

n75 (Or):

successors

n33 0

predecessors

n76 0

n77 0

n78 (Mul):

successors

n80 0

n50 0

n94 0

n54 0

predecessors

n149 0

n77 (Shift):

successors

n75 0

predecessors

n115 0

n110 (Mem):

successors

n119 0

predecessors

n24 0

n79 (Add):

successors

n109 0

predecessors

n25 0

n111 (And):

successors

n100 0

predecessors

n112 0

n114 (Add):

successors

n113 0

predecessors

n17 0

n115 (And):

successors

n77 0

predecessors

n128 0

n112 (Mem):

successors

n111 0

predecessors

n35 0

n113 (Mem):

successors

n96 0

predecessors

n114 0

n118 (Shift):

successors

n177 0

predecessors

n119 0

n119 (And):

successors

n118 0

predecessors

n110 0

n116 (Mem):

successors

n152 0

predecessors

n60 0

n117 (Add):

successors

n37 0

predecessors

n25 0

n81 (Add):

successors

n171 0

predecessors

n61 0

n80 (Mem):

successors

n91 0

predecessors

n78 0

n83 (And):

successors

n82 0

predecessors

n135 0

n82 (Shift):

successors

n101 0

predecessors

n83 0

n85 (Add):

successors

n84 0

predecessors

n44 0

n84 (Mem):

successors

n137 0

predecessors

n85 0

n87 (Mem):

successors

n156 0

predecessors

n88 0

n86 (And):

successors

n175 0

predecessors

n43 0

n89 (Mem):

predecessors

n72 0

n41 0

n31 0

n88 (Mul):

successors

n27 0

n49 0

n93 0

n87 0

predecessors

n167 0

n100 (Or):

successors

n98 0

predecessors

n111 0

n181 0

n185 (Add):

n186 (Cmp):

n103 (Or):

successors

n146 0

predecessors

n104 0

n91 0

n104 (Shift):

successors

n103 0

predecessors

n12 0

n101 (Or):

successors

n68 0

predecessors

n82 0

n95 0

n102 (Shift):

successors

n99 0

predecessors

n22 0

n107 (Or):

successors

n30 0

predecessors

n18 0

n134 0

n108 (Or):

successors

n30 0

predecessors

n155 0

n156 0

n105 (Mem):

successors

n172 0

predecessors

n41 0

n106 0

n106 (Add):

successors

n105 0

n183 0

n109 (Mem):

successors

n170 0

predecessors

n79 0

Nr of Nodes : 187

ASAP

Found schedule of length 15

n90 : [0:0]

n72 : [0:0]

n71 : [0:0]

n41 : [0:1]

n74 : [0:0]

n62 : [0:0]

n42 : [0:0]

n151 : [0:0]

n184 : [0:0]

n45 : [0:0]

n166 : [0:0]

n163 : [0:0]

n185 : [0:0]

n59 : [0:0]

n186 : [0:0]

n167 : [0:0]

n179 : [0:0]

n149 : [0:0]

n106 : [0:0]

n25 : [1:4]

n58 : [1:4]

n35 : [1:4]

n17 : [1:4]

n61 : [1:4]

n78 : [1:4]

n44 : [1:4]

n88 : [1:4]

n73 : [2:3]

n40 : [2:3]

n32 : [2:3]

n67 : [2:3]

n133 : [2:3]

n29 : [2:3]

n145 : [2:3]

n105 : [2:3]

n70 : [5:5]

n50 : [5:5]

n94 : [5:5]

n93 : [5:5]

n180 : [5:5]

n52 : [5:5]

n54 : [5:5]

n97 : [5:6]

n34 : [5:5]

n182 : [5:6]

n79 : [5:5]

n16 : [5:5]

n130 : [5:6]

n15 : [5:5]

n114 : [5:5]

n39 : [5:5]

n112 : [5:6]

n157 : [5:5]

n117 : [5:5]

n81 : [5:5]

n80 : [5:6]

n60 : [5:5]

n85 : [5:5]

n87 : [5:6]

n43 : [5:6]

n173 : [5:5]

n47 : [5:5]

n24 : [5:5]

n27 : [5:5]

n49 : [5:5]

n120 : [5:6]

n129 : [5:5]

n92 : [6:7]

n51 : [6:7]

n161 : [6:7]

n53 : [6:7]

n14 : [6:7]

n154 : [6:7]

n110 : [6:7]

n13 : [6:7]

n38 : [6:7]

n37 : [6:7]

n135 : [6:7]

n113 : [6:7]

n116 : [6:7]

n84 : [6:7]

n23 : [6:7]

n171 : [6:7]

n69 : [6:7]

n122 : [6:7]

n46 : [6:7]

n26 : [6:7]

n48 : [6:7]

n125 : [6:7]

n128 : [6:7]

n109 : [6:7]

n2 : [7:7]

n91 : [7:7]

n57 : [7:7]

n111 : [7:7]

n156 : [7:7]

n65 : [7:7]

n86 : [7:7]

n143 : [7:7]

n83 : [8:8]

n7 : [8:8]

n96 : [8:8]

n21 : [8:8]

n140 : [8:8]

n12 : [8:8]

n170 : [8:8]

n11 : [8:8]

n55 : [8:8]

n22 : [8:8]

n36 : [8:8]

n121 : [8:8]

n165 : [8:8]

n152 : [8:8]

n174 : [8:8]

n153 : [8:8]

n164 : [8:8]

n136 : [8:8]

n158 : [8:8]

n137 : [8:8]

n115 : [8:8]

n19 : [8:8]

n124 : [8:8]

n119 : [8:8]

n1 : [9:9]

n6 : [9:9]

n82 : [9:9]

n95 : [9:9]

n150 : [9:9]

n10 : [9:9]

n76 : [9:9]

n20 : [9:9]

n64 : [9:9]

n181 : [9:9]

n56 : [9:9]

n77 : [9:9]

n155 : [9:9]

n142 : [9:9]

n131 : [9:9]

n169 : [9:9]

n147 : [9:9]

n18 : [9:9]

n104 : [9:9]

n148 : [9:9]

n134 : [9:9]

n102 : [9:9]

n118 : [9:9]

n138 : [9:9]

n0 : [10:10]

n4 : [10:10]

n5 : [10:10]

n63 : [10:10]

n9 : [10:10]

n75 : [10:10]

n160 : [10:10]

n99 : [10:10]

n100 : [10:10]

n177 : [10:10]

n141 : [10:10]

n175 : [10:10]

n103 : [10:10]

n101 : [10:10]

n107 : [10:10]

n108 : [10:10]

n176 : [11:11]

n68 : [11:11]

n3 : [11:11]

n146 : [11:11]

n8 : [11:11]

n30 : [11:11]

n98 : [11:11]

n33 : [11:11]

n132 : [12:12]

n144 : [12:12]

n28 : [12:12]

n127 : [12:12]

n139 : [12:12]

n172 : [12:12]

n31 : [12:12]

n66 : [12:12]

n159 : [13:14]

n126 : [13:14]

n178 : [13:14]

n123 : [13:14]

n168 : [13:14]

n183 : [13:14]

n162 : [13:14]

n89 : [13:14]

Registered resources

SH 9 48.0

AND 8 48.0

AND 7 16.0

CMP 0 2.1

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

MUL 1 18.4

MEM 6 288.0

MEM 7 216.0

MEM 14 72.0

MEM 13 72.0

MEM 5 72.0

MEM 3 72.0

MEM 2 72.0

MEM 1 9.0

MEM 0 9.0

OR 10 32.0

OR 12 16.0

OR 11 16.0

ADD 5 24.0

ADD 0 17.0

cost = 460.5

ALAP

Found schedule of length 15

n166 : [0:0]

n59 : [0:0]

n167 : [0:0]

n71 : [0:0]

n149 : [0:0]

n62 : [0:0]

n184 : [0:0]

n45 : [0:0]

n58 : [1:4]

n25 : [1:4]

n35 : [1:4]

n17 : [1:4]

n61 : [1:4]

n78 : [1:4]

n44 : [1:4]

n88 : [1:4]

n81 : [5:5]

n70 : [5:5]

n94 : [5:5]

n50 : [5:5]

n93 : [5:5]

n180 : [5:5]

n60 : [5:5]

n52 : [5:5]

n85 : [5:5]

n54 : [5:5]

n173 : [5:5]

n34 : [5:5]

n47 : [5:5]

n24 : [5:5]

n79 : [5:5]

n27 : [5:5]

n49 : [5:5]

n16 : [5:5]

n15 : [5:5]

n114 : [5:5]

n39 : [5:5]

n157 : [5:5]

n129 : [5:5]

n117 : [5:5]

n92 : [6:7]

n51 : [6:7]

n84 : [6:7]

n161 : [6:7]

n53 : [6:7]

n23 : [6:7]

n171 : [6:7]

n69 : [6:7]

n154 : [6:7]

n14 : [6:7]

n110 : [6:7]

n13 : [6:7]

n46 : [6:7]

n122 : [6:7]

n38 : [6:7]

n37 : [6:7]

n26 : [6:7]

n48 : [6:7]

n125 : [6:7]

n113 : [6:7]

n135 : [6:7]

n116 : [6:7]

n128 : [6:7]

n109 : [6:7]

n97 : [7:8]

n182 : [7:8]

n130 : [7:8]

n112 : [7:8]

n80 : [7:8]

n87 : [7:8]

n43 : [7:8]

n120 : [7:8]

n7 : [8:8]

n96 : [8:8]

n140 : [8:8]

n12 : [8:8]

n55 : [8:8]

n11 : [8:8]

n36 : [8:8]

n174 : [8:8]

n152 : [8:8]

n153 : [8:8]

n158 : [8:8]

n136 : [8:8]

n137 : [8:8]

n115 : [8:8]

n19 : [8:8]

n119 : [8:8]

n83 : [8:8]

n41 : [8:9]

n21 : [8:8]

n170 : [8:8]

n22 : [8:8]

n165 : [8:8]

n121 : [8:8]

n164 : [8:8]

n124 : [8:8]

n1 : [9:9]

n90 : [9:9]

n2 : [9:9]

n91 : [9:9]

n72 : [9:9]

n6 : [9:9]

n74 : [9:9]

n95 : [9:9]

n76 : [9:9]

n10 : [9:9]

n56 : [9:9]

n181 : [9:9]

n77 : [9:9]

n57 : [9:9]

n111 : [9:9]

n155 : [9:9]

n131 : [9:9]

n18 : [9:9]

n134 : [9:9]

n156 : [9:9]

n179 : [9:9]

n118 : [9:9]

n138 : [9:9]

n82 : [9:9]

n150 : [9:9]

n65 : [9:9]

n42 : [9:9]

n151 : [9:9]

n20 : [9:9]

n86 : [9:9]

n64 : [9:9]

n143 : [9:9]

n163 : [9:9]

n142 : [9:9]

n147 : [9:9]

n169 : [9:9]

n148 : [9:9]

n104 : [9:9]

n102 : [9:9]

n106 : [9:9]

n0 : [10:10]

n4 : [10:10]

n5 : [10:10]

n63 : [10:10]

n73 : [10:11]

n40 : [10:11]

n9 : [10:10]

n32 : [10:11]

n75 : [10:10]

n67 : [10:11]

n99 : [10:10]

n160 : [10:10]

n133 : [10:11]

n177 : [10:10]

n100 : [10:10]

n141 : [10:10]

n175 : [10:10]

n29 : [10:11]

n103 : [10:10]

n145 : [10:11]

n101 : [10:10]

n107 : [10:10]

n108 : [10:10]

n105 : [10:11]

n3 : [11:11]

n30 : [11:11]

n8 : [11:11]

n98 : [11:11]

n33 : [11:11]

n176 : [11:11]

n68 : [11:11]

n146 : [11:11]

n132 : [12:12]

n144 : [12:12]

n28 : [12:12]

n127 : [12:12]

n139 : [12:12]

n172 : [12:12]

n31 : [12:12]

n66 : [12:12]

n126 : [13:14]

n159 : [13:14]

n123 : [13:14]

n178 : [13:14]

n168 : [13:14]

n183 : [13:14]

n162 : [13:14]

n89 : [13:14]

n185 : [14:14]

n186 : [14:14]

Registered resources

SH 9 48.0

AND 8 48.0

AND 9 16.0

CMP 14 2.1

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

MUL 1 18.4

MEM 7 288.0

MEM 6 216.0

MEM 8 81.0

MEM 14 72.0

MEM 13 72.0

MEM 11 72.0

MEM 10 72.0

MEM 9 9.0

OR 10 32.0

OR 12 16.0

OR 11 16.0

ADD 5 24.0

ADD 9 8.0

ADD 0 8.0

ADD 14 1.0

cost = 460.5

# SIMD512Digest-compress-1878-2280

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64454:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-compress-1878-2280.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-compress-1878-2280.dot

n90 (Add):

successors

n89 0

predecessors

n23 0

n92 (Shift):

successors

n64 0

n91 (Add):

successors

n21 0

predecessors

n59 0

n94 (Add):

successors

n81 0

predecessors

n23 0

n93 (Mul):

successors

n56 0

predecessors

n103 0

n96 (Mem):

successors

n106 0

predecessors

n1 0

n63 0

n95 (Add):

successors

n35 0

predecessors

n104 0

n10 (And):

successors

n9 0

predecessors

n106 0

n98 (Shift):

successors

n76 0

predecessors

n79 0

n97 (And):

successors

n76 0

predecessors

n70 0

n12 (Add):

successors

n67 0

predecessors

n13 0

n11 (Shift):

successors

n9 0

predecessors

n34 0

n99 (Mem):

predecessors

n100 0

n4 0

n101 0

n14 (Mul):

successors

n102 0

predecessors

n15 0

n13 (Add):

successors

n12 0

predecessors

n23 0

n16 (And):

successors

n6 0

predecessors

n17 0

n15 (Mem):

successors

n14 0

predecessors

n1 0

n18 0

n18 (Add):

successors

n15 0

predecessors

n19 0

n17 (Mul):

successors

n16 0

predecessors

n7 0

n19 (Add):

successors

n18 0

predecessors

n23 0

n21 (Mem):

successors

n20 0

predecessors

n1 0

n91 0

n20 (Mul):

successors

n26 0

predecessors

n21 0

n23 (Mem):

successors

n90 0

n61 0

n94 0

n50 0

n60 0

n41 0

n86 0

n78 0

n22 0

n69 0

n13 0

n59 0

n29 0

n104 0

n19 0

n105 0

predecessors

n64 0

n22 (Add):

successors

n62 0

predecessors

n23 0

n25 (Mul):

successors

n24 0

predecessors

n47 0

n24 (And):

successors

n101 0

predecessors

n25 0

n27 (Shift):

successors

n6 0

predecessors

n87 0

n26 (Shift):

successors

n40 0

predecessors

n20 0

n29 (Add):

successors

n28 0

predecessors

n23 0

n28 (Add):

successors

n66 0

predecessors

n29 0

n30 (Mem):

successors

n70 0

predecessors

n1 0

n31 0

n32 (And):

successors

n55 0

predecessors

n33 0

n31 (Add):

successors

n30 0

predecessors

n78 0

n34 (Mul):

successors

n11 0

predecessors

n71 0

n33 (Mul):

successors

n32 0

predecessors

n35 0

n36 (Mem):

successors

n77 0

predecessors

n1 0

n37 0

n35 (Mem):

successors

n33 0

predecessors

n1 0

n95 0

n38 (Mem):

predecessors

n39 0

n4 0

n40 0

n37 (Add):

successors

n36 0

predecessors

n69 0

n39 (Add):

successors

n38 0

n41 (Add):

successors

n8 0

predecessors

n23 0

n40 (Add):

successors

n38 0

predecessors

n26 0

n102 0

n43 (And):

successors

n42 0

predecessors

n77 0

n42 (Add):

successors

n53 0

predecessors

n43 0

n44 0

n45 (Shift):

successors

n101 0

predecessors

n46 0

n44 (Shift):

successors

n42 0

predecessors

n65 0

n47 (Mem):

successors

n25 0

predecessors

n1 0

n48 0

n46 (Mul):

successors

n45 0

predecessors

n57 0

n49 (Add):

successors

n71 0

predecessors

n50 0

n48 (Add):

successors

n47 0

predecessors

n61 0

n0 (Mem):

successors

n73 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

n80 0

n7 0

n71 0

n30 0

n96 0

n21 0

n67 0

n66 0

n88 0

n36 0

n47 0

n57 0

n35 0

n15 0

n103 0

n2 (Add):

successors

n0 0

predecessors

n86 0

n3 (Mem):

predecessors

n4 0

n5 0

n6 0

n4 (Mem):

successors

n38 0

n3 0

n107 0

n74 0

n51 0

n84 0

n53 0

n99 0

n5 (Add):

successors

n3 0

n6 (Add):

successors

n3 0

predecessors

n16 0

n27 0

n50 (Add):

successors

n49 0

predecessors

n23 0

n7 (Mem):

successors

n17 0

predecessors

n1 0

n8 0

n8 (Add):

successors

n7 0

predecessors

n41 0

n52 (Add):

successors

n51 0

n9 (Add):

successors

n51 0

predecessors

n10 0

n11 0

n51 (Mem):

predecessors

n4 0

n52 0

n9 0

n54 (Add):

successors

n53 0

n53 (Mem):

predecessors

n4 0

n54 0

n42 0

n56 (Shift):

successors

n55 0

predecessors

n93 0

n55 (Add):

successors

n84 0

predecessors

n32 0

n56 0

n58 (Add):

successors

n57 0

predecessors

n105 0

n57 (Mem):

successors

n46 0

predecessors

n58 0

n1 0

n59 (Add):

successors

n91 0

predecessors

n23 0

n61 (Add):

successors

n48 0

predecessors

n23 0

n60 (Add):

successors

n63 0

predecessors

n23 0

n63 (Add):

successors

n96 0

predecessors

n60 0

n62 (Add):

successors

n103 0

predecessors

n22 0

n65 (Mul):

successors

n44 0

predecessors

n66 0

n64 (Add):

successors

n23 0

predecessors

n92 0

n67 (Mem):

successors

n68 0

predecessors

n1 0

n12 0

n66 (Mem):

successors

n65 0

predecessors

n1 0

n28 0

n69 (Add):

successors

n37 0

predecessors

n23 0

n68 (Mul):

successors

n83 0

predecessors

n67 0

n70 (Mul):

successors

n97 0

predecessors

n30 0

n72 (Shift):

successors

n82 0

predecessors

n73 0

n71 (Mem):

successors

n34 0

predecessors

n49 0

n1 0

n74 (Mem):

predecessors

n4 0

n76 0

n75 0

n73 (Mul):

successors

n72 0

predecessors

n0 0

n76 (Add):

successors

n74 0

predecessors

n98 0

n97 0

n75 (Add):

successors

n74 0

n78 (Add):

successors

n31 0

predecessors

n23 0

n77 (Mul):

successors

n43 0

predecessors

n36 0

n110 (Cmp):

n79 (Mul):

successors

n98 0

predecessors

n80 0

n81 (Add):

successors

n80 0

predecessors

n94 0

n80 (Mem):

successors

n79 0

predecessors

n1 0

n81 0

n83 (And):

successors

n82 0

predecessors

n68 0

n82 (Add):

successors

n107 0

predecessors

n83 0

n72 0

n85 (Add):

successors

n84 0

n84 (Mem):

predecessors

n4 0

n85 0

n55 0

n87 (Mul):

successors

n27 0

predecessors

n88 0

n86 (Add):

successors

n2 0

predecessors

n23 0

n89 (Add):

successors

n88 0

predecessors

n90 0

n88 (Mem):

successors

n87 0

predecessors

n1 0

n89 0

n100 (Add):

successors

n99 0

n103 (Mem):

successors

n93 0

predecessors

n1 0

n62 0

n104 (Add):

successors

n95 0

predecessors

n23 0

n101 (Add):

successors

n99 0

predecessors

n24 0

n45 0

n102 (And):

successors

n40 0

predecessors

n14 0

n107 (Mem):

predecessors

n4 0

n108 0

n82 0

n108 (Add):

successors

n107 0

n105 (Add):

successors

n58 0

predecessors

n23 0

n106 (Mul):

successors

n10 0

predecessors

n96 0

n109 (Add):

Nr of Nodes : 111

ASAP

Found schedule of length 16

n1 : [0:1]

n92 : [0:0]

n4 : [0:1]

n5 : [0:0]

n52 : [0:0]

n85 : [0:0]

n54 : [0:0]

n75 : [0:0]

n110 : [0:0]

n100 : [0:0]

n39 : [0:0]

n108 : [0:0]

n109 : [0:0]

n64 : [1:1]

n23 : [2:3]

n90 : [4:4]

n61 : [4:4]

n94 : [4:4]

n50 : [4:4]

n60 : [4:4]

n41 : [4:4]

n86 : [4:4]

n78 : [4:4]

n22 : [4:4]

n69 : [4:4]

n13 : [4:4]

n59 : [4:4]

n29 : [4:4]

n104 : [4:4]

n19 : [4:4]

n105 : [4:4]

n2 : [5:5]

n81 : [5:5]

n91 : [5:5]

n63 : [5:5]

n8 : [5:5]

n62 : [5:5]

n95 : [5:5]

n31 : [5:5]

n89 : [5:5]

n12 : [5:5]

n58 : [5:5]

n49 : [5:5]

n48 : [5:5]

n37 : [5:5]

n18 : [5:5]

n28 : [5:5]

n0 : [6:7]

n80 : [6:7]

n7 : [6:7]

n71 : [6:7]

n96 : [6:7]

n30 : [6:7]

n21 : [6:7]

n67 : [6:7]

n88 : [6:7]

n66 : [6:7]

n47 : [6:7]

n36 : [6:7]

n35 : [6:7]

n57 : [6:7]

n15 : [6:7]

n103 : [6:7]

n70 : [8:11]

n93 : [8:11]

n73 : [8:11]

n87 : [8:11]

n65 : [8:11]

n20 : [8:11]

n34 : [8:11]

n77 : [8:11]

n33 : [8:11]

n25 : [8:11]

n14 : [8:11]

n79 : [8:11]

n68 : [8:11]

n46 : [8:11]

n17 : [8:11]

n106 : [8:11]

n72 : [12:12]

n83 : [12:12]

n43 : [12:12]

n32 : [12:12]

n98 : [12:12]

n10 : [12:12]

n97 : [12:12]

n56 : [12:12]

n45 : [12:12]

n44 : [12:12]

n11 : [12:12]

n24 : [12:12]

n27 : [12:12]

n16 : [12:12]

n26 : [12:12]

n102 : [12:12]

n101 : [13:13]

n6 : [13:13]

n82 : [13:13]

n9 : [13:13]

n40 : [13:13]

n76 : [13:13]

n42 : [13:13]

n55 : [13:13]

n38 : [14:15]

n3 : [14:15]

n107 : [14:15]

n74 : [14:15]

n51 : [14:15]

n84 : [14:15]

n53 : [14:15]

n99 : [14:15]

Registered resources

AND 12 16.0

MUL 11 36.8

MUL 10 36.8

MUL 9 36.8

MUL 8 36.8

ADD 5 16.0

ADD 4 16.0

ADD 0 9.0

ADD 13 8.0

ADD 1 1.0

CMP 0 2.1

SH 12 16.0

SH 0 2.0

MEM 7 144.0

MEM 6 144.0

MEM 15 72.0

MEM 14 72.0

MEM 1 18.0

MEM 0 18.0

MEM 3 9.0

MEM 2 9.0

cost = 230.89999999999998

ALAP

Found schedule of length 16

n92 : [0:0]

n64 : [1:1]

n23 : [2:3]

n1 : [4:5]

n90 : [4:4]

n94 : [4:4]

n50 : [4:4]

n61 : [4:4]

n60 : [4:4]

n41 : [4:4]

n86 : [4:4]

n78 : [4:4]

n22 : [4:4]

n69 : [4:4]

n13 : [4:4]

n59 : [4:4]

n29 : [4:4]

n104 : [4:4]

n19 : [4:4]

n105 : [4:4]

n2 : [5:5]

n81 : [5:5]

n91 : [5:5]

n8 : [5:5]

n63 : [5:5]

n95 : [5:5]

n62 : [5:5]

n31 : [5:5]

n12 : [5:5]

n89 : [5:5]

n58 : [5:5]

n49 : [5:5]

n37 : [5:5]

n48 : [5:5]

n18 : [5:5]

n28 : [5:5]

n0 : [6:7]

n80 : [6:7]

n71 : [6:7]

n7 : [6:7]

n30 : [6:7]

n96 : [6:7]

n21 : [6:7]

n67 : [6:7]

n66 : [6:7]

n88 : [6:7]

n36 : [6:7]

n47 : [6:7]

n35 : [6:7]

n57 : [6:7]

n15 : [6:7]

n103 : [6:7]

n70 : [8:11]

n93 : [8:11]

n73 : [8:11]

n65 : [8:11]

n87 : [8:11]

n20 : [8:11]

n34 : [8:11]

n77 : [8:11]

n33 : [8:11]

n25 : [8:11]

n14 : [8:11]

n68 : [8:11]

n79 : [8:11]

n46 : [8:11]

n17 : [8:11]

n106 : [8:11]

n4 : [12:13]

n83 : [12:12]

n72 : [12:12]

n10 : [12:12]

n98 : [12:12]

n43 : [12:12]

n32 : [12:12]

n97 : [12:12]

n56 : [12:12]

n45 : [12:12]

n11 : [12:12]

n44 : [12:12]

n24 : [12:12]

n16 : [12:12]

n27 : [12:12]

n26 : [12:12]

n102 : [12:12]

n5 : [13:13]

n6 : [13:13]

n82 : [13:13]

n52 : [13:13]

n85 : [13:13]

n40 : [13:13]

n9 : [13:13]

n76 : [13:13]

n54 : [13:13]

n75 : [13:13]

n42 : [13:13]

n55 : [13:13]

n100 : [13:13]

n39 : [13:13]

n101 : [13:13]

n108 : [13:13]

n38 : [14:15]

n3 : [14:15]

n107 : [14:15]

n74 : [14:15]

n51 : [14:15]

n84 : [14:15]

n53 : [14:15]

n99 : [14:15]

n110 : [15:15]

n109 : [15:15]

Registered resources

AND 12 16.0

MUL 11 36.8

MUL 10 36.8

MUL 9 36.8

MUL 8 36.8

CMP 15 2.1

ADD 13 16.0

ADD 5 16.0

ADD 4 16.0

ADD 15 1.0

ADD 1 1.0

SH 12 16.0

SH 0 2.0

MEM 7 144.0

MEM 6 144.0

MEM 15 72.0

MEM 14 72.0

MEM 13 9.0

MEM 12 9.0

MEM 5 9.0

MEM 4 9.0

MEM 3 9.0

MEM 2 9.0

cost = 230.9

# SIMD512Digest-fft64-1537-1965

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64490:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-fft64-1537-1965.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-fft64-1537-1965.dot

n0 (Add):

successors

n73 0

predecessors

n1 0

n1 (Add):

successors

n0 0

predecessors

n9 0

n2 (Mem):

successors

n66 0

predecessors

n3 0

n4 0

n90 (Cmp):

n3 (Mem):

successors

n47 0

n49 0

n2 0

n10 0

n20 0

n42 0

n12 0

n55 0

n4 (Add):

successors

n2 0

n5 (Mem):

successors

n16 0

n22 0

predecessors

n6 0

n7 0

n6 (Mem):

successors

n5 0

n60 0

n74 0

n41 0

n85 0

n73 0

n32 0

n54 0

n14 0

n24 0

n35 0

n68 0

n79 0

n26 0

n17 0

n28 0

n50 (Add):

successors

n49 0

n7 (Add):

successors

n5 0

predecessors

n9 0

n8 (Add):

successors

n17 0

predecessors

n9 0

n52 (Add):

successors

n18 0

n51 0

predecessors

n83 0

n56 0

n9 (Add):

successors

n1 0

n81 0

n80 0

n61 0

n72 0

n7 0

n8 0

n30 0

n64 0

n34 0

n67 0

n36 0

n27 0

n29 0

n39 0

n19 0

n51 (Sub):

successors

n73 0

predecessors

n28 0

n52 0

n10 (Mem):

successors

n38 0

predecessors

n3 0

n11 0

n54 (Mem):

successors

n53 0

n44 0

predecessors

n6 0

n75 0

n53 (Mul):

successors

n86 0

predecessors

n54 0

n55 0

n12 (Mem):

successors

n57 0

predecessors

n13 0

n3 0

n56 (Shift):

successors

n52 0

predecessors

n57 0

n11 (Add):

successors

n10 0

n55 (Mem):

successors

n53 0

predecessors

n3 0

n82 0

n14 (Mem):

predecessors

n16 0

n15 0

n6 0

n58 (Add):

successors

n41 0

predecessors

n27 0

n13 (Add):

successors

n12 0

n57 (Mul):

successors

n56 0

predecessors

n60 0

n12 0

n16 (Sub):

successors

n14 0

predecessors

n5 0

n23 0

n15 (Add):

successors

n14 0

predecessors

n67 0

n59 (And):

successors

n23 0

predecessors

n40 0

n18 (Add):

successors

n17 0

predecessors

n28 0

n52 0

n17 (Mem):

predecessors

n18 0

n6 0

n8 0

n19 (Add):

successors

n26 0

predecessors

n9 0

n61 (Add):

successors

n68 0

predecessors

n9 0

n60 (Mem):

successors

n57 0

n77 0

predecessors

n6 0

n71 0

n63 (Add):

successors

n85 0

predecessors

n64 0

n62 (Add):

successors

n42 0

n21 (Add):

successors

n20 0

n65 (And):

successors

n33 0

predecessors

n66 0

n20 (Mem):

successors

n77 0

predecessors

n3 0

n21 0

n64 (Add):

successors

n63 0

predecessors

n9 0

n23 (Add):

successors

n16 0

n22 0

predecessors

n59 0

n45 0

n67 (Add):

successors

n15 0

predecessors

n9 0

n22 (Add):

successors

n26 0

predecessors

n5 0

n23 0

n66 (Mul):

successors

n65 0

predecessors

n24 0

n2 0

n25 (Add):

successors

n24 0

predecessors

n39 0

n69 (Add):

successors

n68 0

predecessors

n35 0

n78 0

n24 (Mem):

successors

n38 0

n66 0

predecessors

n25 0

n6 0

n68 (Mem):

predecessors

n69 0

n6 0

n61 0

n27 (Add):

successors

n58 0

predecessors

n9 0

n26 (Mem):

predecessors

n19 0

n6 0

n22 0

n29 (Add):

successors

n28 0

predecessors

n9 0

n28 (Mem):

successors

n18 0

n51 0

predecessors

n29 0

n6 0

n70 (Add):

successors

n74 0

predecessors

n30 0

n72 (Add):

successors

n71 0

predecessors

n9 0

n71 (Add):

successors

n60 0

predecessors

n72 0

n30 (Add):

successors

n70 0

predecessors

n9 0

n74 (Mem):

predecessors

n70 0

n6 0

n31 0

n73 (Mem):

predecessors

n0 0

n6 0

n51 0

n32 (Mem):

successors

n76 0

n31 0

predecessors

n6 0

n34 0

n76 (Add):

successors

n79 0

predecessors

n32 0

n33 0

n31 (Sub):

successors

n74 0

predecessors

n32 0

n33 0

n75 (Add):

successors

n54 0

predecessors

n81 0

n34 (Add):

successors

n32 0

predecessors

n9 0

n78 (Add):

successors

n69 0

n84 0

predecessors

n43 0

n86 0

n33 (Add):

successors

n76 0

n31 0

predecessors

n37 0

n65 0

n77 (Mul):

successors

n83 0

predecessors

n60 0

n20 0

n36 (Add):

successors

n35 0

predecessors

n9 0

n35 (Mem):

successors

n69 0

n84 0

predecessors

n36 0

n6 0

n79 (Mem):

predecessors

n80 0

n6 0

n76 0

n38 (Mul):

successors

n37 0

predecessors

n24 0

n10 0

n37 (Shift):

successors

n33 0

predecessors

n38 0

n39 (Add):

successors

n25 0

predecessors

n9 0

n81 (Add):

successors

n75 0

predecessors

n9 0

n80 (Add):

successors

n79 0

predecessors

n9 0

n83 (And):

successors

n52 0

predecessors

n77 0

n82 (Add):

successors

n55 0

n41 (Mem):

successors

n46 0

n40 0

predecessors

n58 0

n6 0

n85 (Mem):

predecessors

n6 0

n63 0

n84 0

n40 (Mul):

successors

n59 0

predecessors

n41 0

n42 0

n84 (Sub):

successors

n85 0

predecessors

n35 0

n78 0

n43 (Shift):

successors

n78 0

predecessors

n44 0

n87 (Add):

n42 (Mem):

successors

n40 0

predecessors

n3 0

n62 0

n86 (And):

successors

n78 0

predecessors

n53 0

n45 (Shift):

successors

n23 0

predecessors

n46 0

n89 (Cmp):

n44 (Mul):

successors

n43 0

predecessors

n49 0

n54 0

n88 (Add):

n47 (Mem):

successors

n46 0

predecessors

n48 0

n3 0

n46 (Mul):

successors

n45 0

predecessors

n47 0

n41 0

n49 (Mem):

successors

n44 0

predecessors

n3 0

n50 0

n48 (Add):

successors

n47 0

Nr of Nodes : 91

ASAP

Found schedule of length 14

n90 : [0:0]

n3 : [0:1]

n4 : [0:0]

n6 : [0:1]

n50 : [0:0]

n82 : [0:0]

n9 : [0:0]

n62 : [0:0]

n21 : [0:0]

n87 : [0:0]

n89 : [0:0]

n11 : [0:0]

n88 : [0:0]

n13 : [0:0]

n48 : [0:0]

n1 : [1:1]

n81 : [1:1]

n80 : [1:1]

n61 : [1:1]

n72 : [1:1]

n7 : [1:1]

n8 : [1:1]

n30 : [1:1]

n64 : [1:1]

n34 : [1:1]

n67 : [1:1]

n36 : [1:1]

n27 : [1:1]

n29 : [1:1]

n39 : [1:1]

n19 : [1:1]

n0 : [2:2]

n2 : [2:3]

n70 : [2:2]

n5 : [2:3]

n71 : [2:2]

n63 : [2:2]

n10 : [2:3]

n32 : [2:3]

n42 : [2:3]

n20 : [2:3]

n75 : [2:2]

n12 : [2:3]

n55 : [2:3]

n47 : [2:3]

n58 : [2:2]

n25 : [2:2]

n35 : [2:3]

n49 : [2:3]

n15 : [2:2]

n28 : [2:3]

n60 : [3:4]

n41 : [3:4]

n54 : [3:4]

n24 : [3:4]

n57 : [5:8]

n46 : [5:8]

n38 : [5:8]

n40 : [5:8]

n53 : [5:8]

n66 : [5:8]

n77 : [5:8]

n44 : [5:8]

n37 : [9:9]

n59 : [9:9]

n83 : [9:9]

n65 : [9:9]

n43 : [9:9]

n86 : [9:9]

n56 : [9:9]

n45 : [9:9]

n52 : [10:10]

n78 : [10:10]

n23 : [10:10]

n33 : [10:10]

n69 : [11:11]

n16 : [11:11]

n18 : [11:11]

n51 : [11:11]

n84 : [11:11]

n76 : [11:11]

n31 : [11:11]

n22 : [11:11]

n14 : [12:13]

n68 : [12:13]

n79 : [12:13]

n26 : [12:13]

n17 : [12:13]

n85 : [12:13]

n74 : [12:13]

n73 : [12:13]

Registered resources

AND 9 8.0

SH 9 8.0

ADD 1 16.0

ADD 0 11.0

ADD 2 8.0

ADD 11 4.0

ADD 10 4.0

MUL 8 18.4

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MEM 3 144.0

MEM 2 108.0

MEM 13 72.0

MEM 12 72.0

MEM 4 36.0

MEM 1 18.0

MEM 0 18.0

SUB 11 5.6

CMP 0 4.2

cost = 204.2

ALAP

Found schedule of length 14

n9 : [0:0]

n27 : [1:1]

n3 : [1:2]

n39 : [1:1]

n81 : [1:1]

n6 : [1:2]

n72 : [1:1]

n4 : [2:2]

n50 : [2:2]

n71 : [2:2]

n82 : [2:2]

n62 : [2:2]

n21 : [2:2]

n75 : [2:2]

n11 : [2:2]

n25 : [2:2]

n58 : [2:2]

n13 : [2:2]

n48 : [2:2]

n47 : [3:4]

n24 : [3:4]

n49 : [3:4]

n2 : [3:4]

n60 : [3:4]

n41 : [3:4]

n10 : [3:4]

n54 : [3:4]

n42 : [3:4]

n20 : [3:4]

n12 : [3:4]

n55 : [3:4]

n57 : [5:8]

n46 : [5:8]

n38 : [5:8]

n40 : [5:8]

n53 : [5:8]

n77 : [5:8]

n44 : [5:8]

n66 : [5:8]

n36 : [8:8]

n29 : [8:8]

n7 : [8:8]

n34 : [8:8]

n35 : [9:10]

n59 : [9:9]

n37 : [9:9]

n28 : [9:10]

n5 : [9:10]

n83 : [9:9]

n32 : [9:10]

n43 : [9:9]

n65 : [9:9]

n86 : [9:9]

n56 : [9:9]

n45 : [9:9]

n1 : [10:10]

n30 : [10:10]

n52 : [10:10]

n64 : [10:10]

n78 : [10:10]

n23 : [10:10]

n67 : [10:10]

n33 : [10:10]

n0 : [11:11]

n70 : [11:11]

n80 : [11:11]

n61 : [11:11]

n8 : [11:11]

n63 : [11:11]

n84 : [11:11]

n51 : [11:11]

n76 : [11:11]

n31 : [11:11]

n22 : [11:11]

n69 : [11:11]

n16 : [11:11]

n15 : [11:11]

n18 : [11:11]

n19 : [11:11]

n14 : [12:13]

n68 : [12:13]

n79 : [12:13]

n26 : [12:13]

n17 : [12:13]

n74 : [12:13]

n85 : [12:13]

n73 : [12:13]

n90 : [13:13]

n87 : [13:13]

n89 : [13:13]

n88 : [13:13]

Registered resources

AND 9 8.0

SH 9 8.0

ADD 11 12.0

ADD 2 12.0

ADD 10 8.0

ADD 8 4.0

ADD 1 4.0

ADD 13 2.0

ADD 0 1.0

MUL 8 18.4

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MEM 4 108.0

MEM 3 108.0

MEM 13 72.0

MEM 12 72.0

MEM 10 36.0

MEM 9 36.0

MEM 2 18.0

MEM 1 18.0

SUB 11 5.6

CMP 13 4.2

cost = 164.2

# SIMD512Digest-fft64-3640-4116

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64510:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SIMD512Digest-fft64-3640-4116.dot

Scheduling scheduler-framework-master/graphs/SIMD512Digest-fft64-3640-4116.dot

n90 (Mem):

successors

n73 0

n42 0

predecessors

n29 0

n8 0

n92 (Add):

successors

n75 0

n91 (Add):

successors

n55 0

n94 (Add):

successors

n87 0

n93 (Add):

successors

n48 0

n96 (Add):

successors

n72 0

n95 (Mem):

successors

n85 0

n54 0

predecessors

n8 0

n74 0

n10 (Sub):

successors

n7 0

predecessors

n49 0

n19 0

n98 (Mem):

predecessors

n8 0

n22 0

n99 0

n97 (Add):

successors

n72 0

n12 (Mem):

successors

n63 0

n11 0

predecessors

n8 0

n64 0

n11 (Mul):

successors

n44 0

predecessors

n13 0

n12 0

n99 (Add):

successors

n98 0

predecessors

n26 0

n2 0

n14 (Mem):

successors

n85 0

predecessors

n16 0

n15 0

n13 (Mem):

successors

n11 0

predecessors

n15 0

n67 0

n16 (Add):

successors

n14 0

n15 (Mem):

successors

n14 0

n13 0

n115 0

n80 0

n61 0

n87 0

n77 0

n88 0

n18 (Add):

successors

n17 0

predecessors

n27 0

n28 0

n17 (Mem):

successors

n83 0

n82 0

predecessors

n18 0

n8 0

n19 (Add):

successors

n52 0

n10 0

predecessors

n21 0

n20 0

n21 (Shift):

successors

n19 0

predecessors

n81 0

n20 (And):

successors

n19 0

predecessors

n66 0

n23 (Add):

successors

n22 0

n22 (Add):

successors

n98 0

predecessors

n24 0

n23 0

n25 (Sub):

successors

n47 0

predecessors

n26 0

n2 0

n121 (Cmp):

n24 (Add):

successors

n22 0

n27 (Add):

successors

n18 0

predecessors

n117 0

n26 (Mem):

successors

n25 0

n99 0

predecessors

n100 0

n8 0

n120 (Cmp):

n29 (Add):

successors

n90 0

predecessors

n30 0

n31 0

n28 (Add):

successors

n18 0

n30 (Add):

successors

n29 0

n32 (Sub):

successors

n59 0

predecessors

n34 0

n33 0

n31 (Add):

successors

n29 0

n34 (Add):

successors

n70 0

n32 0

predecessors

n84 0

n53 0

n33 (Mem):

successors

n70 0

n32 0

predecessors

n8 0

n43 0

n36 (Add):

successors

n35 0

n35 (Add):

successors

n60 0

predecessors

n36 0

n38 (Add):

successors

n37 0

n37 (Add):

successors

n51 0

predecessors

n38 0

n39 0

n39 (Add):

successors

n37 0

n41 (Add):

successors

n40 0

predecessors

n0 0

n65 0

n40 (Mem):

predecessors

n8 0

n41 0

n42 0

n43 (Add):

successors

n33 0

predecessors

n103 0

n104 0

n42 (Sub):

successors

n40 0

predecessors

n57 0

n90 0

n45 (Add):

successors

n48 0

predecessors

n46 0

n44 (Shift):

successors

n57 0

predecessors

n11 0

n47 (Mem):

predecessors

n25 0

n48 0

n8 0

n46 (Add):

successors

n45 0

n49 (Mem):

successors

n52 0

n10 0

predecessors

n50 0

n8 0

n48 (Add):

successors

n47 0

predecessors

n93 0

n45 0

n0 (Add):

successors

n41 0

predecessors

n1 0

n1 (Add):

successors

n0 0

n2 (Add):

successors

n25 0

n99 0

predecessors

n3 0

n4 0

n3 (And):

successors

n2 0

predecessors

n82 0

n4 (Shift):

successors

n2 0

predecessors

n83 0

n5 (Add):

successors

n107 0

predecessors

n6 0

n6 (Add):

successors

n5 0

n50 (Add):

successors

n49 0

predecessors

n110 0

n109 0

n7 (Mem):

predecessors

n8 0

n9 0

n10 0

n8 (Mem):

successors

n90 0

n7 0

n71 0

n40 0

n51 0

n95 0

n98 0

n12 0

n33 0

n47 0

n68 0

n79 0

n49 0

n59 0

n26 0

n17 0

n52 (Add):

successors

n51 0

predecessors

n49 0

n19 0

n9 (Add):

successors

n7 0

predecessors

n56 0

n55 0

n51 (Mem):

predecessors

n37 0

n8 0

n52 0

n54 (Mul):

successors

n53 0

predecessors

n95 0

n88 0

n53 (Shift):

successors

n34 0

predecessors

n54 0

n56 (Add):

successors

n9 0

n55 (Add):

successors

n9 0

predecessors

n91 0

n58 (And):

successors

n57 0

predecessors

n63 0

n57 (Add):

successors

n73 0

n42 0

predecessors

n58 0

n44 0

n59 (Mem):

predecessors

n60 0

n8 0

n32 0

n61 (Mem):

successors

n63 0

predecessors

n15 0

n62 0

n60 (Add):

successors

n59 0

predecessors

n35 0

n86 0

n63 (Mul):

successors

n58 0

predecessors

n61 0

n12 0

n62 (Add):

successors

n61 0

n65 (Add):

successors

n41 0

n64 (Add):

successors

n12 0

predecessors

n105 0

n106 0

n67 (Add):

successors

n13 0

n66 (Mul):

successors

n20 0

predecessors

n79 0

n80 0

n69 (Add):

successors

n68 0

predecessors

n112 0

n113 0

n68 (Mem):

predecessors

n69 0

n70 0

n8 0

n70 (Add):

successors

n68 0

predecessors

n34 0

n33 0

n72 (Add):

successors

n71 0

predecessors

n96 0

n97 0

n71 (Mem):

predecessors

n72 0

n8 0

n73 0

n74 (Add):

successors

n95 0

predecessors

n76 0

n75 0

n73 (Add):

successors

n71 0

predecessors

n57 0

n90 0

n76 (Add):

successors

n74 0

n75 (Add):

successors

n74 0

predecessors

n92 0

n78 (Add):

successors

n77 0

n77 (Mem):

successors

n81 0

predecessors

n15 0

n78 0

n110 (Add):

successors

n50 0

n79 (Mem):

successors

n81 0

n66 0

predecessors

n107 0

n8 0

n111 (Add):

successors

n105 0

n114 (Add):

successors

n80 0

n115 (Mem):

successors

n82 0

predecessors

n15 0

n116 0

n112 (Add):

successors

n69 0

n113 (Add):

successors

n69 0

n118 (Add):

n119 (Add):

n116 (Add):

successors

n115 0

n117 (Add):

successors

n27 0

n81 (Mul):

successors

n21 0

predecessors

n79 0

n77 0

n80 (Mem):

successors

n66 0

predecessors

n15 0

n114 0

n83 (Mul):

successors

n4 0

predecessors

n17 0

n87 0

n82 (Mul):

successors

n3 0

predecessors

n17 0

n115 0

n85 (Mul):

successors

n84 0

predecessors

n14 0

n95 0

n84 (And):

successors

n34 0

predecessors

n85 0

n87 (Mem):

successors

n83 0

predecessors

n15 0

n94 0

n86 (Add):

successors

n60 0

n89 (Add):

successors

n88 0

n88 (Mem):

successors

n54 0

predecessors

n15 0

n89 0

n100 (Add):

successors

n26 0

predecessors

n101 0

n102 0

n103 (Add):

successors

n43 0

n104 (Add):

successors

n43 0

n101 (Add):

successors

n100 0

n102 (Add):

successors

n100 0

n107 (Add):

successors

n79 0

predecessors

n5 0

n108 0

n108 (Add):

successors

n107 0

n105 (Add):

successors

n64 0

predecessors

n111 0

n106 (Add):

successors

n64 0

n109 (Add):

successors

n50 0

Nr of Nodes : 122

ASAP

Found schedule of length 14

n1 : [0:0]

n92 : [0:0]

n91 : [0:0]

n94 : [0:0]

n6 : [0:0]

n93 : [0:0]

n96 : [0:0]

n30 : [0:0]

n8 : [0:1]

n76 : [0:0]

n97 : [0:0]

n31 : [0:0]

n56 : [0:0]

n78 : [0:0]

n36 : [0:0]

n110 : [0:0]

n111 : [0:0]

n16 : [0:0]

n38 : [0:0]

n15 : [0:1]

n114 : [0:0]

n39 : [0:0]

n112 : [0:0]

n113 : [0:0]

n118 : [0:0]

n119 : [0:0]

n116 : [0:0]

n117 : [0:0]

n62 : [0:0]

n65 : [0:0]

n86 : [0:0]

n23 : [0:0]

n67 : [0:0]

n89 : [0:0]

n121 : [0:0]

n24 : [0:0]

n46 : [0:0]

n120 : [0:0]

n103 : [0:0]

n28 : [0:0]

n104 : [0:0]

n101 : [0:0]

n102 : [0:0]

n108 : [0:0]

n106 : [0:0]

n109 : [0:0]

n0 : [1:1]

n5 : [1:1]

n72 : [1:1]

n50 : [1:1]

n43 : [1:1]

n75 : [1:1]

n45 : [1:1]

n55 : [1:1]

n22 : [1:1]

n69 : [1:1]

n35 : [1:1]

n100 : [1:1]

n27 : [1:1]

n37 : [1:1]

n29 : [1:1]

n105 : [1:1]

n90 : [2:3]

n80 : [2:3]

n61 : [2:3]

n60 : [2:2]

n41 : [2:2]

n74 : [2:2]

n9 : [2:2]

n87 : [2:3]

n64 : [2:2]

n77 : [2:3]

n88 : [2:3]

n33 : [2:3]

n14 : [2:3]

n13 : [2:3]

n49 : [2:3]

n48 : [2:2]

n26 : [2:3]

n18 : [2:2]

n115 : [2:3]

n107 : [2:2]

n95 : [3:4]

n12 : [3:4]

n79 : [3:4]

n17 : [3:4]

n81 : [5:8]

n83 : [5:8]

n82 : [5:8]

n85 : [5:8]

n63 : [5:8]

n54 : [5:8]

n66 : [5:8]

n11 : [5:8]

n58 : [9:9]

n3 : [9:9]

n4 : [9:9]

n84 : [9:9]

n21 : [9:9]

n53 : [9:9]

n20 : [9:9]

n44 : [9:9]

n57 : [10:10]

n2 : [10:10]

n19 : [10:10]

n34 : [10:10]

n25 : [11:11]

n70 : [11:11]

n52 : [11:11]

n73 : [11:11]

n10 : [11:11]

n32 : [11:11]

n42 : [11:11]

n99 : [11:11]

n47 : [12:13]

n68 : [12:13]

n59 : [12:13]

n71 : [12:13]

n7 : [12:13]

n51 : [12:13]

n40 : [12:13]

n98 : [12:13]

Registered resources

SH 9 8.0

AND 9 8.0

CMP 0 4.2

MUL 8 18.4

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MEM 3 144.0

MEM 2 108.0

MEM 13 72.0

MEM 12 72.0

MEM 4 36.0

MEM 1 18.0

MEM 0 18.0

SUB 11 5.6

ADD 0 42.0

ADD 1 16.0

ADD 2 8.0

ADD 11 4.0

ADD 10 4.0

cost = 230.2

ALAP

Found schedule of length 14

n111 : [0:0]

n92 : [0:0]

n6 : [0:0]

n117 : [0:0]

n27 : [1:1]

n15 : [1:2]

n28 : [1:1]

n5 : [1:1]

n108 : [1:1]

n8 : [1:2]

n105 : [1:1]

n106 : [1:1]

n76 : [1:1]

n75 : [1:1]

n94 : [2:2]

n74 : [2:2]

n62 : [2:2]

n64 : [2:2]

n67 : [2:2]

n78 : [2:2]

n89 : [2:2]

n16 : [2:2]

n18 : [2:2]

n114 : [2:2]

n107 : [2:2]

n116 : [2:2]

n14 : [3:4]

n79 : [3:4]

n13 : [3:4]

n17 : [3:4]

n115 : [3:4]

n80 : [3:4]

n61 : [3:4]

n95 : [3:4]

n87 : [3:4]

n12 : [3:4]

n77 : [3:4]

n88 : [3:4]

n81 : [5:8]

n83 : [5:8]

n82 : [5:8]

n85 : [5:8]

n63 : [5:8]

n54 : [5:8]

n66 : [5:8]

n11 : [5:8]

n30 : [7:7]

n31 : [7:7]

n110 : [7:7]

n103 : [7:7]

n104 : [7:7]

n101 : [7:7]

n102 : [7:7]

n109 : [7:7]

n100 : [8:8]

n29 : [8:8]

n50 : [8:8]

n43 : [8:8]

n1 : [9:9]

n90 : [9:10]

n3 : [9:9]

n4 : [9:9]

n91 : [9:9]

n84 : [9:9]

n21 : [9:9]

n53 : [9:9]

n20 : [9:9]

n33 : [9:10]

n44 : [9:9]

n36 : [9:9]

n58 : [9:9]

n46 : [9:9]

n49 : [9:10]

n26 : [9:10]

n0 : [10:10]

n2 : [10:10]

n93 : [10:10]

n96 : [10:10]

n65 : [10:10]

n97 : [10:10]

n86 : [10:10]

n56 : [10:10]

n34 : [10:10]

n23 : [10:10]

n45 : [10:10]

n55 : [10:10]

n35 : [10:10]

n57 : [10:10]

n24 : [10:10]

n38 : [10:10]

n39 : [10:10]

n112 : [10:10]

n19 : [10:10]

n113 : [10:10]

n70 : [11:11]

n72 : [11:11]

n60 : [11:11]

n41 : [11:11]

n52 : [11:11]

n9 : [11:11]

n73 : [11:11]

n32 : [11:11]

n10 : [11:11]

n42 : [11:11]

n22 : [11:11]

n99 : [11:11]

n25 : [11:11]

n69 : [11:11]

n48 : [11:11]

n37 : [11:11]

n47 : [12:13]

n68 : [12:13]

n59 : [12:13]

n7 : [12:13]

n71 : [12:13]

n40 : [12:13]

n51 : [12:13]

n98 : [12:13]

n121 : [13:13]

n120 : [13:13]

n118 : [13:13]

n119 : [13:13]

Registered resources

SH 9 8.0

AND 9 8.0

CMP 13 4.2

MUL 8 18.4

MUL 7 18.4

MUL 6 18.4

MUL 5 18.4

MEM 4 108.0

MEM 3 108.0

MEM 13 72.0

MEM 12 72.0

MEM 10 36.0

MEM 9 36.0

MEM 2 18.0

MEM 1 18.0

SUB 11 5.6

ADD 10 20.0

ADD 11 12.0

ADD 2 12.0

ADD 7 8.0

ADD 1 8.0

ADD 9 4.0

ADD 8 4.0

ADD 0 4.0

ADD 13 2.0

cost = 172.2

# SkipjackEngine-encryptBlock-97-392

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64524:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SkipjackEngine-encryptBlock-97-392.dot

Scheduling scheduler-framework-master/graphs/SkipjackEngine-encryptBlock-97-392.dot

n0 (Or):

successors

n52 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n35 0

n57 0

n0 0

n19 0

n10 0

n43 0

n31 0

n11 0

n2 (Or):

successors

n0 0

predecessors

n6 0

n21 0

n3 (Or):

successors

n10 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n15 0

n3 0

predecessors

n35 0

n8 0

n5 (Mem):

successors

n3 0

predecessors

n46 0

n23 0

n6 (Mem):

successors

n2 0

predecessors

n7 0

n50 (Or):

successors

n35 0

predecessors

n54 0

n45 0

n7 (Mem):

successors

n27 0

n6 0

n8 (And):

successors

n4 0

n12 0

predecessors

n9 0

n52 (Or):

successors

n51 0

predecessors

n0 0

n41 0

n9 (Or):

successors

n8 0

n56 0

predecessors

n34 0

n33 0

n51 (Add):

successors

n33 0

predecessors

n28 0

n52 0

n10 (Or):

successors

n39 0

predecessors

n1 0

n3 0

n54 (Or):

successors

n39 0

n50 0

predecessors

n11 0

n55 0

n53 (Add):

predecessors

n17 0

n12 (Or):

successors

n11 0

predecessors

n49 0

n8 0

n56 (Shift):

successors

n55 0

predecessors

n9 0

n11 (Or):

successors

n54 0

predecessors

n1 0

n12 0

n55 (And):

successors

n54 0

predecessors

n56 0

n14 (Shift):

successors

n13 0

predecessors

n39 0

n58 (Cmp):

n13 (Add):

successors

n25 0

predecessors

n14 0

n15 0

n57 (Or):

successors

n21 0

predecessors

n1 0

n40 0

n16 (Cmp):

predecessors

n17 0

n15 (Or):

successors

n13 0

predecessors

n4 0

n31 0

n18 (Or):

successors

n48 0

n21 0

predecessors

n19 0

n20 0

n17 (Add):

successors

n16 0

n53 0

n19 (Or):

successors

n18 0

predecessors

n36 0

n1 0

n21 (Or):

successors

n2 0

n28 0

predecessors

n57 0

n18 0

n20 (And):

successors

n18 0

predecessors

n47 0

n23 (Add):

successors

n27 0

n49 0

n26 0

n5 0

n45 0

n22 0

n22 (Add):

predecessors

n23 0

n25 (Or):

successors

n24 0

predecessors

n13 0

n24 (Or):

predecessors

n25 0

n26 0

n27 (Mem):

successors

n32 0

predecessors

n7 0

n23 0

n26 (Add):

successors

n24 0

predecessors

n23 0

n29 (Mem):

successors

n48 0

predecessors

n30 0

n28 (Shift):

successors

n51 0

predecessors

n21 0

n30 (Mem):

successors

n29 0

n45 0

n32 (Or):

successors

n31 0

predecessors

n27 0

n39 0

n31 (Or):

successors

n15 0

predecessors

n1 0

n32 0

n34 (Add):

successors

n9 0

n33 (Or):

successors

n9 0

predecessors

n51 0

n36 (Or):

successors

n19 0

predecessors

n38 0

n37 0

n35 (Or):

successors

n4 0

predecessors

n1 0

n50 0

n38 (Mem):

successors

n36 0

predecessors

n44 0

n37 (And):

successors

n36 0

n41 0

n39 (Or):

successors

n14 0

n32 0

predecessors

n10 0

n54 0

n41 (Or):

successors

n52 0

n40 0

predecessors

n37 0

n43 0

n40 (Or):

successors

n57 0

predecessors

n41 0

n42 0

n43 (Or):

successors

n41 0

predecessors

n1 0

n48 0

n42 (Mem):

successors

n40 0

predecessors

n46 0

n45 (Mem):

successors

n50 0

predecessors

n30 0

n23 0

n44 (Mem):

successors

n38 0

n49 0

n47 (Shift):

successors

n20 0

n46 (Mem):

successors

n5 0

n42 0

n49 (Mem):

successors

n12 0

predecessors

n23 0

n44 0

n48 (Or):

successors

n43 0

predecessors

n18 0

n29 0

Nr of Nodes : 59

ASAP

Found schedule of length 35

n58 : [0:0]

n47 : [0:0]

n46 : [0:1]

n1 : [0:1]

n37 : [0:0]

n17 : [0:0]

n7 : [0:1]

n30 : [0:1]

n23 : [0:0]

n34 : [0:0]

n44 : [0:1]

n16 : [1:1]

n26 : [1:1]

n20 : [1:1]

n53 : [1:1]

n22 : [1:1]

n27 : [2:3]

n38 : [2:3]

n49 : [2:3]

n29 : [2:3]

n5 : [2:3]

n6 : [2:3]

n42 : [2:3]

n45 : [2:3]

n36 : [4:4]

n19 : [5:5]

n18 : [6:6]

n48 : [7:7]

n43 : [8:8]

n41 : [9:9]

n40 : [10:10]

n57 : [11:11]

n21 : [12:12]

n2 : [13:13]

n28 : [13:13]

n0 : [14:14]

n52 : [15:15]

n51 : [16:16]

n33 : [17:17]

n9 : [18:18]

n8 : [19:19]

n56 : [19:19]

n12 : [20:20]

n55 : [20:20]

n11 : [21:21]

n54 : [22:22]

n50 : [23:23]

n35 : [24:24]

n4 : [25:25]

n3 : [26:26]

n10 : [27:27]

n39 : [28:28]

n14 : [29:29]

n32 : [29:29]

n31 : [30:30]

n15 : [31:31]

n13 : [32:32]

n25 : [33:33]

n24 : [34:34]

Registered resources

OR 34 2.0

OR 33 2.0

OR 31 2.0

OR 30 2.0

OR 29 2.0

OR 28 2.0

OR 27 2.0

OR 26 2.0

OR 25 2.0

OR 24 2.0

OR 23 2.0

OR 22 2.0

OR 21 2.0

OR 20 2.0

OR 18 2.0

OR 17 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

ADD 1 3.0

ADD 0 3.0

ADD 32 1.0

ADD 16 1.0

MEM 3 72.0

MEM 2 72.0

MEM 1 45.0

MEM 0 45.0

AND 20 2.0

AND 19 2.0

AND 1 2.0

AND 0 2.0

SH 29 2.0

SH 19 2.0

SH 13 2.0

SH 0 2.0

CMP 1 2.1

CMP 0 2.1

cost = 83.1

ALAP

Found schedule of length 35

n44 : [0:1]

n38 : [2:3]

n1 : [3:4]

n37 : [3:3]

n30 : [3:4]

n36 : [4:4]

n47 : [4:4]

n29 : [5:6]

n19 : [5:5]

n20 : [5:5]

n46 : [6:7]

n18 : [6:6]

n48 : [7:7]

n43 : [8:8]

n42 : [8:9]

n7 : [9:10]

n41 : [9:9]

n40 : [10:10]

n57 : [11:11]

n6 : [11:12]

n21 : [12:12]

n2 : [13:13]

n0 : [14:14]

n28 : [15:15]

n52 : [15:15]

n51 : [16:16]

n23 : [17:17]

n34 : [17:17]

n33 : [17:17]

n49 : [18:19]

n9 : [18:18]

n8 : [19:19]

n12 : [20:20]

n56 : [20:20]

n45 : [21:22]

n11 : [21:21]

n55 : [21:21]

n54 : [22:22]

n50 : [23:23]

n35 : [24:24]

n5 : [24:25]

n4 : [25:25]

n3 : [26:26]

n27 : [27:28]

n10 : [27:27]

n39 : [28:28]

n32 : [29:29]

n31 : [30:30]

n14 : [31:31]

n15 : [31:31]

n13 : [32:32]

n25 : [33:33]

n26 : [33:33]

n17 : [33:33]

n58 : [34:34]

n24 : [34:34]

n16 : [34:34]

n53 : [34:34]

n22 : [34:34]

Registered resources

OR 34 2.0

OR 33 2.0

OR 31 2.0

OR 30 2.0

OR 29 2.0

OR 28 2.0

OR 27 2.0

OR 26 2.0

OR 25 2.0

OR 24 2.0

OR 23 2.0

OR 22 2.0

OR 21 2.0

OR 20 2.0

OR 18 2.0

OR 17 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 7 2.0

OR 6 2.0

OR 5 2.0

OR 4 2.0

ADD 34 2.0

ADD 33 2.0

ADD 17 2.0

ADD 32 1.0

ADD 16 1.0

MEM 3 27.0

MEM 9 18.0

MEM 6 18.0

MEM 4 18.0

MEM 28 9.0

MEM 27 9.0

MEM 25 9.0

MEM 24 9.0

MEM 22 9.0

MEM 21 9.0

MEM 19 9.0

MEM 18 9.0

MEM 12 9.0

MEM 11 9.0

MEM 10 9.0

MEM 8 9.0

MEM 7 9.0

MEM 5 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

AND 21 2.0

AND 19 2.0

AND 5 2.0

AND 3 2.0

SH 31 2.0

SH 20 2.0

SH 15 2.0

SH 4 2.0

CMP 34 4.2

cost = 39.2

# SkipjackEngine-encryptBlock-150-445

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=64534:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SkipjackEngine-encryptBlock-150-445.dot

Scheduling scheduler-framework-master/graphs/SkipjackEngine-encryptBlock-150-445.dot

n0 (Or):

successors

n49 0

n30 0

predecessors

n1 0

n2 0

n1 (Or):

successors

n0 0

predecessors

n10 0

n42 0

n2 (Or):

successors

n0 0

n28 0

predecessors

n15 0

n9 0

n3 (Or):

successors

n19 0

n52 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n3 0

predecessors

n10 0

n23 0

n5 (And):

successors

n3 0

n51 0

n6 (Or):

successors

n18 0

n41 0

predecessors

n7 0

n8 0

n50 (Or):

successors

n8 0

predecessors

n51 0

n10 0

n7 (Or):

successors

n6 0

predecessors

n52 0

n10 0

n8 (Or):

successors

n6 0

n23 0

predecessors

n50 0

n56 0

n52 (Or):

successors

n7 0

predecessors

n3 0

n53 0

n9 (Or):

successors

n2 0

predecessors

n10 0

n11 0

n51 (Or):

successors

n50 0

predecessors

n5 0

n55 0

n10 (Mem):

successors

n27 0

n48 0

n1 0

n29 0

n4 0

n50 0

n7 0

n9 0

n54 (Mem):

successors

n43 0

n53 0

n53 (Mem):

successors

n52 0

predecessors

n14 0

n54 0

n12 (Mem):

successors

n41 0

predecessors

n14 0

n13 0

n56 (And):

successors

n8 0

predecessors

n57 0

n11 (Or):

successors

n9 0

predecessors

n36 0

n21 0

n55 (Mem):

successors

n51 0

predecessors

n14 0

n22 0

n14 (Add):

successors

n47 0

n40 0

n20 0

n53 0

n12 0

n55 0

n58 (Cmp):

n13 (Mem):

successors

n24 0

n12 0

n57 (Shift):

successors

n56 0

n16 (Shift):

successors

n15 0

n15 (And):

successors

n2 0

predecessors

n16 0

n18 (Shift):

successors

n17 0

predecessors

n6 0

n17 (Add):

predecessors

n18 0

n19 0

n19 (Or):

successors

n17 0

predecessors

n48 0

n3 0

n21 (Mem):

successors

n11 0

predecessors

n22 0

n20 (Add):

successors

n35 0

predecessors

n14 0

n23 (Or):

successors

n4 0

predecessors

n8 0

n40 0

n22 (Mem):

successors

n21 0

n55 0

n25 (Mem):

successors

n28 0

predecessors

n26 0

n24 (Mem):

successors

n30 0

predecessors

n13 0

n27 (Or):

successors

n32 0

predecessors

n28 0

n10 0

n26 (Mem):

successors

n25 0

n40 0

n29 (Or):

successors

n31 0

predecessors

n30 0

n10 0

n28 (Or):

successors

n27 0

predecessors

n25 0

n2 0

n30 (Or):

successors

n29 0

predecessors

n24 0

n0 0

n32 (Or):

successors

n31 0

n42 0

predecessors

n36 0

n27 0

n31 (Or):

successors

n34 0

predecessors

n29 0

n32 0

n34 (Add):

successors

n33 0

predecessors

n49 0

n31 0

n33 (Or):

successors

n35 0

predecessors

n34 0

n36 (And):

successors

n32 0

n11 0

n35 (Or):

predecessors

n20 0

n33 0

n38 (Or):

successors

n37 0

n37 (Or):

predecessors

n38 0

n39 0

n39 (Add):

successors

n37 0

n41 (Or):

successors

n48 0

predecessors

n6 0

n12 0

n40 (Mem):

successors

n23 0

predecessors

n14 0

n26 0

n43 (Mem):

successors

n42 0

predecessors

n54 0

n42 (Or):

successors

n1 0

predecessors

n32 0

n43 0

n45 (Add):

successors

n46 0

n44 0

n44 (Add):

predecessors

n45 0

n47 (Add):

predecessors

n14 0

n46 (Cmp):

predecessors

n45 0

n49 (Shift):

successors

n34 0

predecessors

n0 0

n48 (Or):

successors

n19 0

predecessors

n41 0

n10 0

Nr of Nodes : 59

ASAP

Found schedule of length 19

n5 : [0:0]

n10 : [0:1]

n54 : [0:1]

n45 : [0:0]

n22 : [0:1]

n14 : [0:0]

n58 : [0:0]

n36 : [0:0]

n13 : [0:1]

n57 : [0:0]

n16 : [0:0]

n38 : [0:0]

n26 : [0:1]

n39 : [0:0]

n47 : [1:1]

n46 : [1:1]

n15 : [1:1]

n37 : [1:1]

n20 : [1:1]

n56 : [1:1]

n44 : [1:1]

n25 : [2:3]

n24 : [2:3]

n40 : [2:3]

n43 : [2:3]

n21 : [2:3]

n53 : [2:3]

n12 : [2:3]

n55 : [2:3]

n51 : [4:4]

n11 : [4:4]

n50 : [5:5]

n9 : [5:5]

n2 : [6:6]

n8 : [6:6]

n28 : [7:7]

n23 : [7:7]

n27 : [8:8]

n4 : [8:8]

n3 : [9:9]

n32 : [9:9]

n52 : [10:10]

n42 : [10:10]

n1 : [11:11]

n7 : [11:11]

n0 : [12:12]

n6 : [12:12]

n49 : [13:13]

n18 : [13:13]

n30 : [13:13]

n41 : [13:13]

n48 : [14:14]

n29 : [14:14]

n19 : [15:15]

n31 : [15:15]

n17 : [16:16]

n34 : [16:16]

n33 : [17:17]

n35 : [18:18]

Registered resources

OR 15 4.0

OR 14 4.0

OR 13 4.0

OR 12 4.0

OR 11 4.0

OR 10 4.0

OR 9 4.0

OR 8 4.0

OR 7 4.0

OR 6 4.0

OR 5 4.0

OR 4 4.0

OR 18 2.0

OR 17 2.0

OR 1 2.0

OR 0 2.0

SH 13 4.0

SH 0 4.0

ADD 1 3.0

ADD 0 3.0

ADD 16 2.0

CMP 1 2.1

CMP 0 2.1

MEM 3 72.0

MEM 2 72.0

MEM 1 45.0

MEM 0 45.0

AND 1 4.0

AND 0 4.0

cost = 89.1

ALAP

Found schedule of length 19

n22 : [0:1]

n21 : [2:3]

n14 : [3:3]

n36 : [3:3]

n26 : [3:4]

n10 : [3:4]

n16 : [4:4]

n55 : [4:5]

n11 : [4:4]

n25 : [5:6]

n15 : [5:5]

n5 : [5:5]

n9 : [5:5]

n57 : [6:6]

n2 : [6:6]

n51 : [6:6]

n54 : [6:7]

n28 : [7:7]

n50 : [7:7]

n40 : [7:8]

n56 : [7:7]

n27 : [8:8]

n8 : [8:8]

n43 : [8:9]

n13 : [9:10]

n32 : [9:9]

n23 : [9:9]

n4 : [10:10]

n53 : [10:11]

n42 : [10:10]

n24 : [11:12]

n1 : [11:11]

n3 : [11:11]

n0 : [12:12]

n52 : [12:12]

n7 : [13:13]

n30 : [13:13]

n12 : [13:14]

n29 : [14:14]

n6 : [14:14]

n49 : [15:15]

n41 : [15:15]

n31 : [15:15]

n48 : [16:16]

n34 : [16:16]

n38 : [17:17]

n18 : [17:17]

n39 : [17:17]

n19 : [17:17]

n20 : [17:17]

n45 : [17:17]

n33 : [17:17]

n58 : [18:18]

n47 : [18:18]

n35 : [18:18]

n46 : [18:18]

n37 : [18:18]

n17 : [18:18]

n44 : [18:18]

Registered resources

OR 17 6.0

OR 18 4.0

OR 15 4.0

OR 14 4.0

OR 13 4.0

OR 12 4.0

OR 11 4.0

OR 10 4.0

OR 9 4.0

OR 8 4.0

OR 7 4.0

OR 6 4.0

OR 16 2.0

OR 5 2.0

OR 4 2.0

SH 17 2.0

SH 15 2.0

SH 6 2.0

SH 4 2.0

CMP 18 4.2

ADD 18 3.0

ADD 17 3.0

ADD 16 1.0

ADD 3 1.0

MEM 4 27.0

MEM 3 27.0

MEM 11 18.0

MEM 10 18.0

MEM 9 18.0

MEM 8 18.0

MEM 7 18.0

MEM 6 18.0

MEM 5 18.0

MEM 14 9.0

MEM 13 9.0

MEM 12 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

AND 5 4.0

AND 7 2.0

AND 3 2.0

cost = 46.2

# SkipjackEngine-init-45-238

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=58926:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SkipjackEngine-init-45-238.dot

Scheduling scheduler-framework-master/graphs/SkipjackEngine-init-45-238.dot

n0 (Cmp):

predecessors

n1 0

n1 (Add):

successors

n47 0

n25 0

n0 0

n38 0

n2 0

n18 0

n41 0

n52 0

n51 0

n23 0

n2 (Mem):

predecessors

n1 0

n3 0

n4 0

n3 (Mem):

successors

n2 0

n7 0

n4 (And):

successors

n2 0

predecessors

n37 0

n5 (Add):

successors

n17 0

predecessors

n6 0

n6 (Mul):

successors

n5 0

n50 (Mem):

predecessors

n48 0

n42 0

n7 (Mem):

predecessors

n3 0

n8 0

n8 (And):

successors

n7 0

predecessors

n15 0

n52 (Mem):

predecessors

n36 0

n1 0

n45 0

n9 (Other):

successors

n19 0

predecessors

n10 0

n51 (Mul):

successors

n43 0

predecessors

n1 0

n10 (Add):

successors

n9 0

predecessors

n24 0

n53 (Cmp):

n12 (Add):

successors

n11 0

predecessors

n16 0

n11 (Other):

successors

n15 0

predecessors

n12 0

n14 (Other):

successors

n13 0

predecessors

n43 0

n13 (Mem):

successors

n36 0

predecessors

n14 0

n16 (Mul):

successors

n12 0

n15 (Mem):

successors

n8 0

predecessors

n11 0

n18 (Mul):

successors

n27 0

predecessors

n1 0

n17 (Other):

successors

n32 0

predecessors

n5 0

n19 (Mem):

successors

n46 0

predecessors

n9 0

n21 (Other):

successors

n20 0

predecessors

n25 0

n20 (Mem):

successors

n33 0

predecessors

n21 0

n23 (Mul):

successors

n22 0

predecessors

n1 0

n22 (Add):

successors

n30 0

predecessors

n23 0

n25 (Mul):

successors

n21 0

predecessors

n1 0

n24 (Mul):

successors

n10 0

n27 (Add):

successors

n26 0

predecessors

n18 0

n26 (Other):

successors

n29 0

predecessors

n27 0

n29 (Mem):

successors

n28 0

predecessors

n26 0

n28 (And):

successors

n38 0

predecessors

n29 0

n30 (Other):

successors

n37 0

predecessors

n22 0

n32 (Mem):

successors

n31 0

predecessors

n17 0

n31 (And):

successors

n40 0

predecessors

n32 0

n34 (Other):

successors

n49 0

predecessors

n35 0

n33 (And):

successors

n41 0

predecessors

n20 0

n36 (And):

successors

n52 0

predecessors

n13 0

n35 (Mul):

successors

n34 0

n38 (Mem):

predecessors

n1 0

n39 0

n28 0

n37 (Mem):

successors

n4 0

predecessors

n30 0

n39 (Mem):

successors

n38 0

n40 0

n41 (Mem):

predecessors

n1 0

n42 0

n33 0

n40 (Mem):

predecessors

n39 0

n31 0

n43 (Add):

successors

n14 0

predecessors

n51 0

n42 (Mem):

successors

n50 0

n41 0

n45 (Mem):

successors

n52 0

n44 0

n44 (Mem):

predecessors

n46 0

n45 0

n47 (Add):

predecessors

n1 0

n46 (And):

successors

n44 0

predecessors

n19 0

n49 (Mem):

successors

n48 0

predecessors

n34 0

n48 (And):

successors

n50 0

predecessors

n49 0

Nr of Nodes : 54

ASAP

Found schedule of length 12

n24 : [0:3]

n35 : [0:3]

n16 : [0:3]

n1 : [0:0]

n3 : [0:1]

n39 : [0:1]

n6 : [0:3]

n53 : [0:0]

n42 : [0:1]

n45 : [0:1]

n0 : [1:1]

n51 : [1:4]

n23 : [1:4]

n47 : [1:1]

n25 : [1:4]

n18 : [1:4]

n5 : [4:4]

n10 : [4:4]

n34 : [4:4]

n12 : [4:4]

n27 : [5:5]

n49 : [5:6]

n17 : [5:5]

n9 : [5:5]

n21 : [5:5]

n43 : [5:5]

n11 : [5:5]

n22 : [5:5]

n14 : [6:6]

n26 : [6:6]

n15 : [6:7]

n19 : [6:7]

n30 : [6:6]

n32 : [6:7]

n20 : [6:7]

n13 : [7:8]

n48 : [7:7]

n37 : [7:8]

n29 : [7:8]

n46 : [8:8]

n50 : [8:9]

n8 : [8:8]

n31 : [8:8]

n33 : [8:8]

n36 : [9:9]

n28 : [9:9]

n4 : [9:9]

n7 : [9:10]

n41 : [9:10]

n40 : [9:10]

n44 : [9:10]

n38 : [10:11]

n2 : [10:11]

n52 : [10:11]

Registered resources

AND 8 8.0

AND 9 6.0

AND 7 2.0

OTHER 5 4.0

OTHER 6 3.0

OTHER 4 1.0

MEM 10 63.0

MEM 7 63.0

MEM 9 45.0

MEM 6 45.0

MEM 8 36.0

MEM 1 36.0

MEM 0 36.0

MEM 11 27.0

MEM 5 9.0

CMP 1 2.1

CMP 0 2.1

ADD 5 3.0

ADD 4 3.0

ADD 1 1.0

ADD 0 1.0

MUL 3 18.4

MUL 2 18.4

MUL 1 18.4

MUL 4 9.2

MUL 0 9.2

cost = 98.5

ALAP

Found schedule of length 12

n1 : [0:0]

n24 : [1:4]

n16 : [1:4]

n18 : [1:4]

n6 : [1:4]

n51 : [1:4]

n23 : [1:4]

n25 : [2:5]

n35 : [2:5]

n27 : [5:5]

n5 : [5:5]

n43 : [5:5]

n10 : [5:5]

n12 : [5:5]

n22 : [5:5]

n14 : [6:6]

n26 : [6:6]

n17 : [6:6]

n30 : [6:6]

n9 : [6:6]

n21 : [6:6]

n34 : [6:6]

n11 : [6:6]

n13 : [7:8]

n49 : [7:8]

n37 : [7:8]

n15 : [7:8]

n29 : [7:8]

n19 : [7:8]

n32 : [7:8]

n20 : [7:8]

n3 : [8:9]

n39 : [8:9]

n42 : [8:9]

n45 : [8:9]

n36 : [9:9]

n46 : [9:9]

n48 : [9:9]

n28 : [9:9]

n4 : [9:9]

n8 : [9:9]

n31 : [9:9]

n33 : [9:9]

n38 : [10:11]

n2 : [10:11]

n50 : [10:11]

n7 : [10:11]

n52 : [10:11]

n41 : [10:11]

n40 : [10:11]

n44 : [10:11]

n47 : [11:11]

n0 : [11:11]

n53 : [11:11]

Registered resources

AND 9 16.0

OTHER 6 8.0

CMP 11 4.2

MEM 8 108.0

MEM 11 72.0

MEM 10 72.0

MEM 7 72.0

MEM 9 36.0

ADD 5 6.0

ADD 11 1.0

ADD 0 1.0

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

MUL 1 13.799999999999999

MUL 5 4.6

cost = 160.6

# SobelFilter\_inline-sobelEdgeDetection-79-203

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=58943:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SobelFilter\_inline-sobelEdgeDetection-79-203.dot

Scheduling scheduler-framework-master/graphs/SobelFilter\_inline-sobelEdgeDetection-79-203.dot

n0 (Sub):

successors

n5 0

predecessors

n1 0

n1 (Sub):

successors

n0 0

predecessors

n13 0

n2 (Cmp):

predecessors

n3 0

n3 (Sub):

successors

n14 0

n2 0

predecessors

n16 0

n4 (Cmp):

predecessors

n5 0

n5 (Sub):

successors

n4 0

n21 0

n22 0

predecessors

n0 0

n6 (Mem):

successors

n15 0

predecessors

n7 0

n7 (Sub):

successors

n6 0

predecessors

n16 0

n20 0

n8 (Sub):

successors

n15 0

predecessors

n9 0

n9 (Mul):

successors

n8 0

n10 (Mul):

successors

n23 0

predecessors

n12 0

n11 0

n12 (And):

successors

n10 0

predecessors

n15 0

n11 (Mem):

successors

n10 0

predecessors

n24 0

n14 (Cmp):

predecessors

n3 0

n13 (Mul):

successors

n1 0

predecessors

n18 0

n19 0

n16 (Sub):

successors

n3 0

n19 0

n7 0

predecessors

n17 0

n15 (Shift):

successors

n12 0

predecessors

n6 0

n8 0

n18 (Mem):

successors

n13 0

n17 0

n17 (Div):

successors

n16 0

predecessors

n18 0

n19 (Add):

successors

n13 0

predecessors

n16 0

n21 (Mul):

successors

n20 0

predecessors

n5 0

n20 (Add):

successors

n7 0

predecessors

n21 0

n23 (Add):

predecessors

n10 0

n22 (Cmp):

predecessors

n5 0

n25 (Add):

n24 (Mem):

successors

n11 0

n26 (Cmp):

Nr of Nodes : 27

ASAP

Found schedule of length 44

n25 : [0:0]

n24 : [0:1]

n26 : [0:0]

n18 : [0:1]

n9 : [0:3]

n17 : [2:19]

n11 : [2:3]

n8 : [4:4]

n16 : [20:20]

n3 : [21:21]

n19 : [21:21]

n14 : [22:22]

n13 : [22:25]

n2 : [22:22]

n1 : [26:26]

n0 : [27:27]

n5 : [28:28]

n4 : [29:29]

n21 : [29:32]

n22 : [29:29]

n20 : [33:33]

n7 : [34:34]

n6 : [35:36]

n15 : [37:37]

n12 : [38:38]

n10 : [39:42]

n23 : [43:43]

Registered resources

SUB 34 1.4

SUB 28 1.4

SUB 27 1.4

SUB 26 1.4

SUB 21 1.4

SUB 20 1.4

SUB 4 1.4

DIV 19 4.3

DIV 18 4.3

DIV 17 4.3

DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

DIV 11 4.3

DIV 10 4.3

DIV 9 4.3

DIV 8 4.3

DIV 7 4.3

DIV 6 4.3

DIV 5 4.3

DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

AND 38 2.0

CMP 29 4.2

CMP 22 4.2

CMP 0 2.1

MUL 42 2.3

MUL 41 2.3

MUL 40 2.3

MUL 39 2.3

MUL 32 2.3

MUL 31 2.3

MUL 30 2.3

MUL 29 2.3

MUL 25 2.3

MUL 24 2.3

MUL 23 2.3

MUL 22 2.3

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

MUL 0 2.3

MEM 1 18.0

MEM 0 18.0

MEM 36 9.0

MEM 35 9.0

MEM 3 9.0

MEM 2 9.0

SH 37 2.0

ADD 43 1.0

ADD 33 1.0

ADD 21 1.0

ADD 0 1.0

cost = 35.2

ALAP

Found schedule of length 44

n18 : [0:1]

n17 : [2:19]

n16 : [20:20]

n19 : [21:21]

n13 : [22:25]

n1 : [26:26]

n0 : [27:27]

n5 : [28:28]

n21 : [29:32]

n9 : [32:35]

n20 : [33:33]

n7 : [34:34]

n24 : [35:36]

n6 : [35:36]

n8 : [36:36]

n15 : [37:37]

n11 : [37:38]

n12 : [38:38]

n10 : [39:42]

n3 : [42:42]

n14 : [43:43]

n25 : [43:43]

n26 : [43:43]

n2 : [43:43]

n4 : [43:43]

n23 : [43:43]

n22 : [43:43]

Registered resources

SUB 42 1.4

SUB 36 1.4

SUB 34 1.4

SUB 28 1.4

SUB 27 1.4

SUB 26 1.4

SUB 20 1.4

AND 38 2.0

DIV 19 4.3

DIV 18 4.3

DIV 17 4.3

DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

DIV 11 4.3

DIV 10 4.3

DIV 9 4.3

DIV 8 4.3

DIV 7 4.3

DIV 6 4.3

DIV 5 4.3

DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

CMP 43 10.5

MUL 32 4.6

MUL 42 2.3

MUL 41 2.3

MUL 40 2.3

MUL 39 2.3

MUL 35 2.3

MUL 34 2.3

MUL 33 2.3

MUL 31 2.3

MUL 30 2.3

MUL 29 2.3

MUL 25 2.3

MUL 24 2.3

MUL 23 2.3

MUL 22 2.3

MEM 36 18.0

MEM 35 18.0

MEM 38 9.0

MEM 37 9.0

MEM 1 9.0

MEM 0 9.0

SH 37 2.0

ADD 43 2.0

ADD 33 1.0

ADD 21 1.0

cost = 44.8

# SwizzleFilter-filterImage-13-423

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=58950:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/SwizzleFilter-filterImage-13-423.dot

Scheduling scheduler-framework-master/graphs/SwizzleFilter-filterImage-13-423.dot

n0 (Mul):

successors

n39 0

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

predecessors

n4 0

n2 (Add):

successors

n69 0

n46 0

n57 0

n0 0

n33 0

predecessors

n17 0

n50 0

n3 (Mem):

successors

n34 0

predecessors

n4 0

n4 (Mem):

successors

n1 0

n3 0

n6 0

n30 0

n63 0

n74 0

n41 0

n62 0

n73 0

n21 0

n32 0

n65 0

n64 0

n23 0

n78 0

n55 0

n77 0

n14 0

n24 0

n49 0

n5 (Mul):

successors

n28 0

predecessors

n6 0

n7 0

n6 (Mem):

successors

n5 0

predecessors

n4 0

n50 (Add):

successors

n2 0

predecessors

n37 0

n20 0

n7 (Add):

successors

n79 0

n70 0

n5 0

n9 0

predecessors

n39 0

n43 0

n8 (Add):

successors

n36 0

predecessors

n9 0

n10 0

n52 (Mul):

successors

n40 0

predecessors

n32 0

n44 0

n9 (Mul):

successors

n8 0

predecessors

n7 0

n55 0

n51 (Cmp):

predecessors

n36 0

n10 (Mul):

successors

n8 0

predecessors

n26 0

n41 0

n54 (Shift):

successors

n53 0

n53 (Or):

successors

n12 0

predecessors

n54 0

n12 (Or):

successors

n11 0

predecessors

n58 0

n53 0

n56 (Add):

successors

n27 0

predecessors

n61 0

n72 0

n11 (Mem):

predecessors

n12 0

n55 (Mem):

successors

n9 0

predecessors

n4 0

n14 (Mem):

successors

n13 0

predecessors

n4 0

n58 (Or):

successors

n12 0

predecessors

n59 0

n60 0

n13 (Mul):

successors

n40 0

predecessors

n14 0

n57 (Mul):

successors

n27 0

predecessors

n2 0

n65 0

n16 (Mem):

successors

n15 0

n71 0

n42 0

n44 0

n15 (Shift):

successors

n31 0

predecessors

n16 0

n59 (Shift):

successors

n58 0

n18 (Mul):

successors

n17 0

predecessors

n64 0

n31 0

n17 (Add):

successors

n2 0

predecessors

n18 0

n19 0

n19 (Mul):

successors

n17 0

predecessors

n25 0

n24 0

n61 (Mul):

successors

n56 0

predecessors

n62 0

n44 0

n60 (Shift):

successors

n58 0

n63 (Mem):

successors

n76 0

predecessors

n4 0

n62 (Mem):

successors

n61 0

predecessors

n4 0

n21 (Mem):

successors

n20 0

predecessors

n4 0

n65 (Mem):

successors

n57 0

predecessors

n4 0

n20 (Mul):

successors

n50 0

predecessors

n21 0

n22 0

n64 (Mem):

successors

n18 0

predecessors

n4 0

n23 (Mem):

successors

n69 0

predecessors

n4 0

n67 (Add):

successors

n36 0

predecessors

n69 0

n68 0

n22 (And):

successors

n20 0

predecessors

n42 0

n66 (Mul):

successors

n43 0

predecessors

n25 0

n77 0

n25 (And):

successors

n48 0

n19 0

n66 0

predecessors

n71 0

n69 (Mul):

successors

n67 0

predecessors

n2 0

n23 0

n24 (Mem):

successors

n19 0

predecessors

n4 0

n68 (Add):

successors

n67 0

predecessors

n76 0

n75 0

n27 (Add):

successors

n26 0

predecessors

n57 0

n56 0

n26 (Add):

successors

n47 0

n10 0

n45 0

predecessors

n27 0

n28 0

n29 (Mul):

successors

n43 0

predecessors

n30 0

n31 0

n28 (Add):

successors

n26 0

predecessors

n48 0

n5 0

n70 (Cmp):

predecessors

n7 0

n72 (Mul):

successors

n56 0

predecessors

n73 0

n71 (Shift):

successors

n25 0

predecessors

n16 0

n30 (Mem):

successors

n29 0

predecessors

n4 0

n74 (Mem):

successors

n38 0

predecessors

n4 0

n73 (Mem):

successors

n72 0

predecessors

n4 0

n32 (Mem):

successors

n52 0

predecessors

n4 0

n76 (Mul):

successors

n68 0

predecessors

n63 0

n31 (And):

successors

n29 0

n18 0

predecessors

n15 0

n75 (Mul):

successors

n68 0

predecessors

n78 0

n44 0

n34 (Mul):

successors

n37 0

predecessors

n3 0

n78 (Mem):

successors

n75 0

predecessors

n4 0

n33 (Cmp):

predecessors

n2 0

n77 (Mem):

successors

n66 0

predecessors

n4 0

n36 (Add):

successors

n35 0

n51 0

predecessors

n8 0

n67 0

n35 (Cmp):

predecessors

n36 0

n79 (Cmp):

predecessors

n7 0

n38 (Mul):

successors

n37 0

predecessors

n74 0

n44 0

n37 (Add):

successors

n50 0

predecessors

n38 0

n34 0

n39 (Add):

successors

n7 0

predecessors

n0 0

n40 0

n81 (Cmp):

n80 (Add):

n41 (Mem):

successors

n10 0

predecessors

n4 0

n40 (Add):

successors

n39 0

predecessors

n13 0

n52 0

n43 (Add):

successors

n7 0

predecessors

n29 0

n66 0

n42 (Shift):

successors

n22 0

predecessors

n16 0

n45 (Cmp):

predecessors

n26 0

n44 (And):

successors

n38 0

n61 0

n52 0

n75 0

predecessors

n16 0

n47 (Cmp):

predecessors

n26 0

n46 (Cmp):

predecessors

n2 0

n49 (Mem):

successors

n48 0

predecessors

n4 0

n48 (Mul):

successors

n28 0

predecessors

n25 0

n49 0

Nr of Nodes : 82

ASAP

Found schedule of length 30

n16 : [0:1]

n59 : [0:0]

n4 : [0:1]

n81 : [0:0]

n80 : [0:0]

n60 : [0:0]

n54 : [0:0]

n58 : [1:1]

n53 : [1:1]

n1 : [2:3]

n3 : [2:3]

n6 : [2:3]

n71 : [2:2]

n30 : [2:3]

n74 : [2:3]

n73 : [2:3]

n32 : [2:3]

n78 : [2:3]

n12 : [2:2]

n55 : [2:3]

n77 : [2:3]

n14 : [2:3]

n15 : [2:2]

n63 : [2:3]

n41 : [2:3]

n62 : [2:3]

n21 : [2:3]

n65 : [2:3]

n42 : [2:2]

n64 : [2:3]

n23 : [2:3]

n44 : [2:2]

n24 : [2:3]

n49 : [2:3]

n31 : [3:3]

n22 : [3:3]

n11 : [3:4]

n25 : [3:3]

n72 : [4:7]

n61 : [4:7]

n52 : [4:7]

n76 : [4:7]

n75 : [4:7]

n20 : [4:7]

n34 : [4:7]

n66 : [4:7]

n13 : [4:7]

n38 : [4:7]

n48 : [4:7]

n29 : [4:7]

n18 : [4:7]

n19 : [4:7]

n68 : [8:8]

n37 : [8:8]

n17 : [8:8]

n40 : [8:8]

n43 : [8:8]

n56 : [8:8]

n50 : [9:9]

n2 : [10:10]

n69 : [11:14]

n46 : [11:11]

n57 : [11:14]

n0 : [11:14]

n33 : [11:11]

n27 : [15:15]

n39 : [15:15]

n67 : [15:15]

n7 : [16:16]

n79 : [17:17]

n70 : [17:17]

n5 : [17:20]

n9 : [17:20]

n28 : [21:21]

n26 : [22:22]

n47 : [23:23]

n10 : [23:26]

n45 : [23:23]

n8 : [27:27]

n36 : [28:28]

n35 : [29:29]

n51 : [29:29]

Registered resources

AND 3 6.0

AND 2 2.0

OR 1 4.0

OR 2 2.0

CMP 29 4.2

CMP 23 4.2

CMP 17 4.2

CMP 11 4.2

CMP 0 2.1

ADD 8 6.0

ADD 15 3.0

ADD 28 1.0

ADD 27 1.0

ADD 22 1.0

ADD 21 1.0

ADD 16 1.0

ADD 10 1.0

ADD 9 1.0

ADD 0 1.0

SH 2 6.0

SH 0 6.0

MUL 7 32.199999999999996

MUL 6 32.199999999999996

MUL 5 32.199999999999996

MUL 4 32.199999999999996

MUL 14 6.8999999999999995

MUL 13 6.8999999999999995

MUL 12 6.8999999999999995

MUL 11 6.8999999999999995

MUL 20 4.6

MUL 19 4.6

MUL 18 4.6

MUL 17 4.6

MUL 26 2.3

MUL 25 2.3

MUL 24 2.3

MUL 23 2.3

MEM 3 189.0

MEM 2 180.0

MEM 1 18.0

MEM 0 18.0

MEM 4 9.0

cost = 247.39999999999998

ALAP

Found schedule of length 30

n4 : [0:1]

n16 : [1:2]

n3 : [2:3]

n74 : [2:3]

n24 : [3:4]

n15 : [3:3]

n71 : [3:3]

n21 : [3:4]

n64 : [3:4]

n42 : [3:3]

n44 : [3:3]

n25 : [4:4]

n38 : [4:7]

n31 : [4:4]

n34 : [4:7]

n22 : [4:4]

n18 : [5:8]

n19 : [5:8]

n20 : [5:8]

n14 : [8:9]

n37 : [8:8]

n32 : [8:9]

n1 : [9:10]

n17 : [9:9]

n50 : [9:9]

n30 : [9:10]

n77 : [9:10]

n13 : [10:13]

n2 : [10:10]

n52 : [10:13]

n0 : [11:14]

n29 : [11:14]

n66 : [11:14]

n62 : [14:15]

n73 : [14:15]

n40 : [14:14]

n49 : [15:16]

n39 : [15:15]

n6 : [15:16]

n65 : [15:16]

n43 : [15:15]

n61 : [16:19]

n72 : [16:19]

n7 : [16:16]

n57 : [17:20]

n48 : [17:20]

n5 : [17:20]

n63 : [20:21]

n78 : [20:21]

n56 : [20:20]

n27 : [21:21]

n28 : [21:21]

n41 : [21:22]

n23 : [21:22]

n55 : [21:22]

n26 : [22:22]

n76 : [22:25]

n75 : [22:25]

n69 : [23:26]

n9 : [23:26]

n10 : [23:26]

n59 : [25:25]

n60 : [25:25]

n54 : [25:25]

n58 : [26:26]

n68 : [26:26]

n53 : [26:26]

n8 : [27:27]

n12 : [27:27]

n67 : [27:27]

n36 : [28:28]

n11 : [28:29]

n47 : [29:29]

n35 : [29:29]

n79 : [29:29]

n46 : [29:29]

n70 : [29:29]

n81 : [29:29]

n80 : [29:29]

n51 : [29:29]

n45 : [29:29]

n33 : [29:29]

Registered resources

AND 4 6.0

AND 3 2.0

OR 26 4.0

OR 27 2.0

CMP 29 18.900000000000002

ADD 27 2.0

ADD 21 2.0

ADD 15 2.0

ADD 9 2.0

ADD 29 1.0

ADD 28 1.0

ADD 26 1.0

ADD 22 1.0

ADD 20 1.0

ADD 16 1.0

ADD 14 1.0

ADD 10 1.0

ADD 8 1.0

MUL 25 11.5

MUL 24 11.5

MUL 23 11.5

MUL 19 11.5

MUL 18 11.5

MUL 17 11.5

MUL 13 11.5

MUL 12 11.5

MUL 11 11.5

MUL 7 11.5

MUL 6 11.5

MUL 5 11.5

MUL 26 6.8999999999999995

MUL 20 6.8999999999999995

MUL 14 6.8999999999999995

MUL 8 6.8999999999999995

MUL 22 4.6

MUL 16 4.6

MUL 10 4.6

MUL 4 4.6

SH 25 6.0

SH 3 6.0

MEM 21 45.0

MEM 15 45.0

MEM 9 45.0

MEM 3 45.0

MEM 22 27.0

MEM 16 27.0

MEM 10 27.0

MEM 4 27.0

MEM 2 27.0

MEM 20 18.0

MEM 14 18.0

MEM 8 18.0

MEM 1 18.0

MEM 29 9.0

MEM 28 9.0

MEM 0 9.0

cost = 93.4

# TwofishEngine-#init#-3600-4541

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59093:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/TwofishEngine-#init#-3600-4541.dot

Scheduling scheduler-framework-master/graphs/TwofishEngine-#init#-3600-4541.dot

n90 (Shift):

successors

n32 0

predecessors

n91 0

n92 (Shift):

successors

n11 0

predecessors

n55 0

n91 (Mem):

successors

n90 0

n94 (Or):

successors

n61 0

predecessors

n95 0

n55 0

n93 (Mem):

successors

n79 0

n78 0

n96 (Or):

successors

n141 0

predecessors

n97 0

n67 0

n95 (Or):

successors

n94 0

predecessors

n70 0

n98 (Or):

successors

n179 0

predecessors

n100 0

n99 0

n97 (Mem):

successors

n96 0

n99 (Or):

successors

n98 0

predecessors

n126 0

n9 0

n202 (And):

successors

n201 0

predecessors

n84 0

n203 (Cmp):

n200 (Mem):

successors

n52 0

n201 (Mem):

predecessors

n202 0

n110 (Mem):

predecessors

n111 0

n111 (And):

successors

n110 0

predecessors

n133 0

n114 (Or):

successors

n85 0

predecessors

n162 0

n115 (Mem):

predecessors

n55 0

n112 (And):

successors

n183 0

predecessors

n55 0

n113 (Or):

successors

n150 0

predecessors

n8 0

n118 (Mem):

successors

n117 0

n119 (Or):

successors

n144 0

predecessors

n120 0

n116 (Or):

successors

n100 0

predecessors

n62 0

n117 (Shift):

successors

n135 0

predecessors

n118 0

n100 (Or):

successors

n98 0

predecessors

n116 0

n103 (Mem):

predecessors

n34 0

n104 (Mem):

successors

n53 0

n101 (Shift):

successors

n32 0

predecessors

n102 0

n102 (Mem):

successors

n101 0

n31 0

n107 (Mem):

successors

n106 0

n108 (And):

successors

n164 0

predecessors

n34 0

n105 (Or):

successors

n3 0

predecessors

n35 0

n34 0

n106 (Mem):

successors

n9 0

predecessors

n107 0

n109 (And):

successors

n143 0

predecessors

n55 0

n10 (Or):

successors

n61 0

predecessors

n11 0

n140 (And):

successors

n139 0

predecessors

n40 0

n12 (Shift):

successors

n42 0

predecessors

n1 0

n11 (Or):

successors

n10 0

predecessors

n92 0

n14 (Mem):

successors

n13 0

n132 (And):

successors

n131 0

predecessors

n168 0

n13 (Shift):

successors

n56 0

predecessors

n14 0

n133 (Or):

successors

n111 0

predecessors

n166 0

n88 0

n16 (Or):

successors

n15 0

predecessors

n33 0

n130 (Mem):

predecessors

n60 0

n15 (Or):

successors

n3 0

predecessors

n16 0

n131 (Mem):

predecessors

n132 0

n18 (Shift):

successors

n17 0

predecessors

n5 0

n136 (Cmp):

predecessors

n39 0

n17 (Or):

successors

n27 0

predecessors

n18 0

n4 0

n137 (Or):

successors

n190 0

predecessors

n138 0

n56 0

n134 (Cmp):

predecessors

n69 0

n19 (Or):

successors

n122 0

predecessors

n20 0

n135 (Or):

successors

n83 0

predecessors

n0 0

n117 0

n138 (Or):

successors

n137 0

predecessors

n176 0

n175 0

n139 (Cmp):

predecessors

n140 0

n21 (Mem):

predecessors

n24 0

n23 0

n22 0

n20 (Or):

successors

n19 0

predecessors

n192 0

n23 (Add):

successors

n187 0

n174 0

n153 0

n147 0

n158 0

n41 0

n63 0

n21 0

n22 (Mem):

successors

n21 0

n172 0

n25 (Mem):

predecessors

n27 0

n26 0

n121 (And):

successors

n197 0

predecessors

n122 0

n24 (Or):

successors

n21 0

predecessors

n51 0

n64 0

n122 (Or):

successors

n121 0

predecessors

n19 0

n55 0

n27 (Or):

successors

n25 0

predecessors

n17 0

n167 0

n26 (Mem):

successors

n25 0

n158 0

n120 (Shift):

successors

n119 0

predecessors

n40 0

n29 (Mem):

successors

n28 0

n75 0

n125 (Cmp):

predecessors

n54 0

n28 (Shift):

successors

n75 0

predecessors

n29 0

n126 (Or):

successors

n99 0

predecessors

n127 0

n123 (Mem):

successors

n55 0

predecessors

n124 0

n124 (Mem):

successors

n123 0

n129 (And):

successors

n128 0

predecessors

n40 0

n127 (Shift):

successors

n126 0

predecessors

n9 0

n128 (Cmp):

predecessors

n129 0

n30 (Or):

successors

n153 0

predecessors

n32 0

n31 0

n32 (Or):

successors

n30 0

predecessors

n90 0

n101 0

n161 (Mem):

predecessors

n40 0

n31 (Or):

successors

n30 0

predecessors

n58 0

n102 0

n162 (Shift):

successors

n114 0

predecessors

n34 0

n34 (And):

successors

n36 0

n47 0

n38 0

n186 0

n103 0

n108 0

n105 0

n84 0

n87 0

n162 0

n33 0

predecessors

n63 0

n33 (Shift):

successors

n16 0

predecessors

n34 0

n160 (And):

successors

n171 0

predecessors

n9 0

n36 (Shift):

successors

n35 0

predecessors

n34 0

n154 (Mem):

successors

n153 0

n190 0

n35 (Or):

successors

n105 0

predecessors

n36 0

n155 (Shift):

successors

n142 0

predecessors

n156 0

n38 (And):

successors

n37 0

predecessors

n34 0

n152 (And):

successors

n151 0

predecessors

n9 0

n37 (Cmp):

predecessors

n38 0

n153 (Mem):

predecessors

n154 0

n30 0

n23 0

n158 (Mem):

predecessors

n26 0

n159 0

n23 0

n39 (And):

successors

n136 0

predecessors

n40 0

n159 (Or):

successors

n158 0

predecessors

n48 0

n77 0

n156 (Mem):

successors

n155 0

n157 (Shift):

successors

n182 0

predecessors

n40 0

n41 (Mem):

successors

n40 0

predecessors

n173 0

n23 0

n40 (And):

successors

n163 0

n120 0

n39 0

n157 0

n129 0

n71 0

n7 0

n161 0

n140 0

n45 0

n88 0

predecessors

n41 0

n43 (Mem):

successors

n42 0

n150 (Or):

successors

n168 0

predecessors

n113 0

n42 (Or):

successors

n83 0

predecessors

n43 0

n12 0

n151 (Cmp):

predecessors

n152 0

n45 (Or):

successors

n44 0

predecessors

n144 0

n40 0

n44 (And):

successors

n170 0

predecessors

n45 0

n47 (And):

successors

n46 0

predecessors

n34 0

n143 (Cmp):

predecessors

n109 0

n46 (Cmp):

predecessors

n47 0

n144 (Or):

successors

n45 0

predecessors

n119 0

n49 (Mem):

successors

n48 0

n141 (Or):

successors

n147 0

predecessors

n142 0

n96 0

n48 (Or):

successors

n159 0

predecessors

n49 0

n50 0

n142 (Or):

successors

n141 0

predecessors

n155 0

n193 0

n147 (Mem):

predecessors

n141 0

n82 0

n23 0

n148 (Cmp):

predecessors

n149 0

n145 (Cmp):

predecessors

n146 0

n146 (And):

successors

n145 0

predecessors

n9 0

n149 (And):

successors

n148 0

predecessors

n9 0

n0 (Shift):

successors

n135 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

n12 0

n2 (And):

successors

n198 0

predecessors

n3 0

n3 (Or):

successors

n2 0

predecessors

n15 0

n105 0

n4 (Shift):

successors

n17 0

predecessors

n5 0

n5 (Mem):

successors

n18 0

n4 0

n6 (Cmp):

predecessors

n7 0

n50 (Shift):

successors

n48 0

predecessors

n196 0

n7 (And):

successors

n6 0

predecessors

n40 0

n180 (Shift):

successors

n76 0

predecessors

n181 0

n8 (Shift):

successors

n113 0

predecessors

n9 0

n52 (Shift):

successors

n51 0

predecessors

n200 0

n9 (And):

successors

n152 0

n168 0

n146 0

n191 0

n8 0

n149 0

n127 0

n62 0

n73 0

n160 0

n99 0

predecessors

n106 0

n51 (Or):

successors

n24 0

predecessors

n52 0

n53 0

n54 (And):

successors

n125 0

predecessors

n55 0

n183 (Cmp):

predecessors

n112 0

n53 (Shift):

successors

n51 0

predecessors

n104 0

n184 (Shift):

successors

n76 0

predecessors

n185 0

n56 (Or):

successors

n137 0

predecessors

n13 0

n57 0

n181 (Mem):

successors

n180 0

n55 (And):

successors

n69 0

n122 0

n115 0

n70 0

n112 0

n92 0

n80 0

n94 0

n54 0

n109 0

n192 0

predecessors

n123 0

n182 (Or):

successors

n166 0

predecessors

n157 0

n58 (Shift):

successors

n31 0

predecessors

n59 0

n176 (Shift):

successors

n138 0

predecessors

n177 0

n57 (Shift):

successors

n56 0

predecessors

n175 0

n177 (Mem):

successors

n176 0

n174 (Cmp):

predecessors

n23 0

n59 (Mem):

successors

n58 0

n175 (Mem):

successors

n57 0

n138 0

n178 (Mem):

predecessors

n179 0

n179 (And):

successors

n178 0

predecessors

n98 0

n61 (Or):

successors

n60 0

predecessors

n94 0

n10 0

n60 (And):

successors

n130 0

predecessors

n61 0

n63 (Mem):

successors

n34 0

predecessors

n189 0

n23 0

n62 (Shift):

successors

n116 0

predecessors

n9 0

n65 (Mem):

successors

n64 0

n66 0

n172 (Mem):

predecessors

n74 0

n22 0

n64 (Or):

successors

n24 0

predecessors

n65 0

n66 0

n173 (Mem):

successors

n41 0

n67 (Shift):

successors

n96 0

predecessors

n68 0

n170 (Mem):

predecessors

n44 0

n66 (Shift):

successors

n64 0

predecessors

n65 0

n171 (Cmp):

predecessors

n160 0

n69 (And):

successors

n134 0

predecessors

n55 0

n165 (Cmp):

predecessors

n80 0

n68 (Mem):

successors

n67 0

n193 0

n166 (Or):

successors

n133 0

predecessors

n182 0

n163 (Shift):

successors

n89 0

predecessors

n40 0

n164 (Cmp):

predecessors

n108 0

n169 (Cmp):

predecessors

n71 0

n167 (Or):

successors

n27 0

predecessors

n199 0

n194 0

n168 (Or):

successors

n132 0

predecessors

n9 0

n150 0

n70 (Shift):

successors

n95 0

predecessors

n55 0

n72 (Cmp):

predecessors

n73 0

n71 (And):

successors

n169 0

predecessors

n40 0

n74 (Or):

successors

n172 0

predecessors

n76 0

n75 0

n73 (And):

successors

n72 0

predecessors

n9 0

n76 (Or):

successors

n74 0

predecessors

n180 0

n184 0

n75 (Or):

successors

n74 0

predecessors

n29 0

n28 0

n78 (Shift):

successors

n77 0

predecessors

n93 0

n77 (Or):

successors

n159 0

predecessors

n79 0

n78 0

n198 (Mem):

predecessors

n2 0

n79 (Shift):

successors

n77 0

predecessors

n93 0

n199 (Mem):

successors

n167 0

n196 (Mem):

successors

n50 0

n197 (Mem):

predecessors

n121 0

n81 (Mem):

predecessors

n83 0

n82 0

n80 (And):

successors

n165 0

predecessors

n55 0

n83 (Or):

successors

n81 0

predecessors

n135 0

n42 0

n190 (Mem):

predecessors

n154 0

n137 0

n82 (Mem):

successors

n147 0

n81 0

n191 (Mem):

predecessors

n9 0

n85 (Or):

successors

n84 0

predecessors

n114 0

n84 (Or):

successors

n202 0

predecessors

n85 0

n34 0

n87 (And):

successors

n86 0

predecessors

n34 0

n194 (Shift):

successors

n167 0

predecessors

n195 0

n86 (Cmp):

predecessors

n87 0

n195 (Mem):

successors

n194 0

n89 (Or):

successors

n88 0

predecessors

n163 0

n192 (Shift):

successors

n20 0

predecessors

n55 0

n88 (Or):

successors

n133 0

predecessors

n40 0

n89 0

n193 (Shift):

successors

n142 0

predecessors

n68 0

n187 (Add):

predecessors

n23 0

n188 (Cmp):

predecessors

n186 0

n185 (Mem):

successors

n184 0

n186 (And):

successors

n188 0

predecessors

n34 0

n189 (Mem):

successors

n63 0

Nr of Nodes : 204

ASAP

Found schedule of length 12

n1 : [0:1]

n91 : [0:1]

n5 : [0:1]

n93 : [0:1]

n97 : [0:1]

n181 : [0:1]

n14 : [0:1]

n154 : [0:1]

n177 : [0:1]

n199 : [0:1]

n196 : [0:1]

n59 : [0:1]

n175 : [0:1]

n156 : [0:1]

n118 : [0:1]

n82 : [0:1]

n43 : [0:1]

n65 : [0:1]

n173 : [0:1]

n195 : [0:1]

n23 : [0:0]

n22 : [0:1]

n68 : [0:1]

n49 : [0:1]

n185 : [0:1]

n26 : [0:1]

n29 : [0:1]

n203 : [0:0]

n104 : [0:1]

n200 : [0:1]

n189 : [0:1]

n102 : [0:1]

n124 : [0:1]

n107 : [0:1]

n174 : [1:1]

n187 : [1:1]

n0 : [2:2]

n90 : [2:2]

n4 : [2:2]

n50 : [2:2]

n180 : [2:2]

n52 : [2:2]

n184 : [2:2]

n53 : [2:2]

n12 : [2:2]

n78 : [2:2]

n176 : [2:2]

n58 : [2:2]

n79 : [2:2]

n13 : [2:2]

n57 : [2:2]

n155 : [2:2]

n18 : [2:2]

n117 : [2:2]

n41 : [2:3]

n63 : [2:3]

n194 : [2:2]

n67 : [2:2]

n66 : [2:2]

n193 : [2:2]

n28 : [2:2]

n101 : [2:2]

n123 : [2:3]

n106 : [2:3]

n96 : [3:3]

n51 : [3:3]

n76 : [3:3]

n32 : [3:3]

n42 : [3:3]

n31 : [3:3]

n64 : [3:3]

n75 : [3:3]

n56 : [3:3]

n77 : [3:3]

n48 : [3:3]

n142 : [3:3]

n17 : [3:3]

n167 : [3:3]

n135 : [3:3]

n138 : [3:3]

n24 : [4:4]

n141 : [4:4]

n27 : [4:4]

n159 : [4:4]

n137 : [4:4]

n83 : [4:4]

n30 : [4:4]

n74 : [4:4]

n40 : [4:4]

n9 : [4:4]

n34 : [4:4]

n55 : [4:4]

n70 : [5:5]

n92 : [5:5]

n71 : [5:5]

n7 : [5:5]

n8 : [5:5]

n73 : [5:5]

n161 : [5:6]

n54 : [5:5]

n140 : [5:5]

n162 : [5:5]

n160 : [5:5]

n33 : [5:5]

n36 : [5:5]

n152 : [5:5]

n38 : [5:5]

n153 : [5:6]

n158 : [5:6]

n39 : [5:5]

n115 : [5:6]

n112 : [5:5]

n157 : [5:5]

n81 : [5:6]

n80 : [5:5]

n190 : [5:6]

n191 : [5:6]

n62 : [5:5]

n87 : [5:5]

n172 : [5:6]

n21 : [5:6]

n192 : [5:5]

n47 : [5:5]

n69 : [5:5]

n25 : [5:6]

n163 : [5:5]

n120 : [5:5]

n186 : [5:5]

n103 : [5:6]

n147 : [5:6]

n146 : [5:5]

n129 : [5:5]

n108 : [5:5]

n149 : [5:5]

n127 : [5:5]

n109 : [5:5]

n6 : [6:6]

n72 : [6:6]

n95 : [6:6]

n183 : [6:6]

n11 : [6:6]

n182 : [6:6]

n35 : [6:6]

n16 : [6:6]

n37 : [6:6]

n114 : [6:6]

n136 : [6:6]

n134 : [6:6]

n113 : [6:6]

n119 : [6:6]

n116 : [6:6]

n139 : [6:6]

n151 : [6:6]

n86 : [6:6]

n20 : [6:6]

n89 : [6:6]

n171 : [6:6]

n165 : [6:6]

n143 : [6:6]

n46 : [6:6]

n188 : [6:6]

n164 : [6:6]

n169 : [6:6]

n125 : [6:6]

n148 : [6:6]

n126 : [6:6]

n145 : [6:6]

n128 : [6:6]

n166 : [7:7]

n144 : [7:7]

n100 : [7:7]

n15 : [7:7]

n19 : [7:7]

n94 : [7:7]

n105 : [7:7]

n85 : [7:7]

n10 : [7:7]

n150 : [7:7]

n88 : [7:7]

n99 : [7:7]

n122 : [8:8]

n133 : [8:8]

n3 : [8:8]

n168 : [8:8]

n61 : [8:8]

n84 : [8:8]

n98 : [8:8]

n45 : [8:8]

n121 : [9:9]

n132 : [9:9]

n111 : [9:9]

n2 : [9:9]

n202 : [9:9]

n179 : [9:9]

n60 : [9:9]

n44 : [9:9]

n110 : [10:11]

n198 : [10:11]

n130 : [10:11]

n197 : [10:11]

n131 : [10:11]

n178 : [10:11]

n201 : [10:11]

n170 : [10:11]

Registered resources

AND 5 40.0

AND 9 16.0

AND 4 8.0

OR 3 32.0

OR 7 24.0

OR 6 24.0

OR 8 16.0

OR 4 16.0

CMP 6 42.0

CMP 1 2.1

CMP 0 2.1

SH 2 48.0

SH 5 24.0

ADD 1 1.0

ADD 0 1.0

MEM 1 288.0

MEM 0 288.0

MEM 6 108.0

MEM 5 108.0

MEM 11 72.0

MEM 10 72.0

MEM 3 36.0

MEM 2 36.0

cost = 451.0

ALAP

Found schedule of length 12

n189 : [0:1]

n124 : [0:1]

n107 : [0:1]

n173 : [0:1]

n23 : [1:1]

n123 : [2:3]

n41 : [2:3]

n63 : [2:3]

n106 : [2:3]

n40 : [4:4]

n9 : [4:4]

n34 : [4:4]

n55 : [4:4]

n1 : [5:6]

n70 : [5:5]

n92 : [5:5]

n91 : [5:6]

n5 : [5:6]

n93 : [5:6]

n8 : [5:5]

n162 : [5:5]

n181 : [5:6]

n33 : [5:5]

n14 : [5:6]

n36 : [5:5]

n177 : [5:6]

n196 : [5:6]

n59 : [5:6]

n175 : [5:6]

n156 : [5:6]

n157 : [5:5]

n118 : [5:6]

n62 : [5:5]

n65 : [5:6]

n195 : [5:6]

n192 : [5:5]

n68 : [5:6]

n185 : [5:6]

n163 : [5:5]

n120 : [5:5]

n29 : [5:6]

n104 : [5:6]

n200 : [5:6]

n102 : [5:6]

n127 : [5:5]

n95 : [6:6]

n97 : [6:7]

n11 : [6:6]

n182 : [6:6]

n199 : [6:7]

n35 : [6:6]

n16 : [6:6]

n114 : [6:6]

n113 : [6:6]

n119 : [6:6]

n116 : [6:6]

n43 : [6:7]

n20 : [6:6]

n89 : [6:6]

n49 : [6:7]

n126 : [6:6]

n0 : [7:7]

n90 : [7:7]

n4 : [7:7]

n94 : [7:7]

n50 : [7:7]

n180 : [7:7]

n52 : [7:7]

n10 : [7:7]

n53 : [7:7]

n184 : [7:7]

n12 : [7:7]

n78 : [7:7]

n99 : [7:7]

n58 : [7:7]

n176 : [7:7]

n13 : [7:7]

n57 : [7:7]

n79 : [7:7]

n155 : [7:7]

n15 : [7:7]

n18 : [7:7]

n19 : [7:7]

n117 : [7:7]

n85 : [7:7]

n194 : [7:7]

n150 : [7:7]

n67 : [7:7]

n66 : [7:7]

n88 : [7:7]

n193 : [7:7]

n100 : [7:7]

n144 : [7:7]

n166 : [7:7]

n28 : [7:7]

n101 : [7:7]

n105 : [7:7]

n3 : [8:8]

n96 : [8:8]

n51 : [8:8]

n32 : [8:8]

n76 : [8:8]

n98 : [8:8]

n31 : [8:8]

n75 : [8:8]

n56 : [8:8]

n77 : [8:8]

n154 : [8:9]

n133 : [8:8]

n17 : [8:8]

n135 : [8:8]

n138 : [8:8]

n61 : [8:8]

n82 : [8:9]

n84 : [8:8]

n42 : [8:8]

n64 : [8:8]

n45 : [8:8]

n22 : [8:9]

n122 : [8:8]

n26 : [8:9]

n48 : [8:8]

n142 : [8:8]

n167 : [8:8]

n168 : [8:8]

n2 : [9:9]

n83 : [9:9]

n60 : [9:9]

n30 : [9:9]

n74 : [9:9]

n44 : [9:9]

n132 : [9:9]

n121 : [9:9]

n111 : [9:9]

n24 : [9:9]

n27 : [9:9]

n141 : [9:9]

n202 : [9:9]

n159 : [9:9]

n137 : [9:9]

n179 : [9:9]

n7 : [10:10]

n71 : [10:10]

n73 : [10:10]

n161 : [10:11]

n54 : [10:10]

n140 : [10:10]

n160 : [10:10]

n110 : [10:11]

n198 : [10:11]

n130 : [10:11]

n38 : [10:10]

n152 : [10:10]

n131 : [10:11]

n153 : [10:11]

n197 : [10:11]

n158 : [10:11]

n115 : [10:11]

n39 : [10:10]

n178 : [10:11]

n112 : [10:10]

n81 : [10:11]

n80 : [10:10]

n190 : [10:11]

n191 : [10:11]

n21 : [10:11]

n172 : [10:11]

n87 : [10:10]

n170 : [10:11]

n25 : [10:11]

n69 : [10:10]

n47 : [10:10]

n186 : [10:10]

n103 : [10:11]

n147 : [10:11]

n201 : [10:11]

n146 : [10:10]

n129 : [10:10]

n108 : [10:10]

n149 : [10:10]

n109 : [10:10]

n6 : [11:11]

n72 : [11:11]

n183 : [11:11]

n174 : [11:11]

n37 : [11:11]

n136 : [11:11]

n134 : [11:11]

n139 : [11:11]

n151 : [11:11]

n86 : [11:11]

n171 : [11:11]

n143 : [11:11]

n165 : [11:11]

n187 : [11:11]

n46 : [11:11]

n188 : [11:11]

n164 : [11:11]

n125 : [11:11]

n169 : [11:11]

n203 : [11:11]

n148 : [11:11]

n145 : [11:11]

n128 : [11:11]

Registered resources

AND 10 40.0

AND 9 16.0

AND 4 8.0

OR 8 48.0

OR 7 24.0

OR 6 24.0

OR 9 16.0

CMP 11 46.2

SH 7 48.0

SH 5 24.0

ADD 11 1.0

ADD 1 1.0

MEM 6 216.0

MEM 11 180.0

MEM 10 180.0

MEM 5 180.0

MEM 9 36.0

MEM 8 36.0

MEM 7 36.0

MEM 3 36.0

MEM 2 36.0

MEM 1 36.0

MEM 0 36.0

cost = 399.2

# TwofishEngine-encryptBlock-90-1017

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59114:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/TwofishEngine-encryptBlock-90-1017.dot

Scheduling scheduler-framework-master/graphs/TwofishEngine-encryptBlock-90-1017.dot

n90 (Mem):

successors

n88 0

predecessors

n17 0

n225 0

n92 (Mem):

successors

n46 0

predecessors

n17 0

n229 0

n91 (Or):

successors

n46 0

predecessors

n247 0

n239 0

n94 (Or):

successors

n144 0

n93 0

predecessors

n122 0

n211 0

n93 (Add):

successors

n108 0

predecessors

n94 0

n95 0

n96 (Or):

successors

n151 0

predecessors

n98 0

n97 0

n95 (Mul):

successors

n93 0

predecessors

n29 0

n98 (Mem):

successors

n96 0

predecessors

n17 0

n54 0

n97 (Or):

successors

n96 0

predecessors

n115 0

n161 0

n99 (Mem):

successors

n20 0

predecessors

n100 0

n17 0

n210 (Mem):

successors

n89 0

predecessors

n17 0

n145 0

n213 (And):

successors

n25 0

predecessors

n214 0

n214 (Shift):

successors

n213 0

predecessors

n76 0

n211 (Or):

successors

n94 0

predecessors

n166 0

n212 0

n212 (Mem):

successors

n211 0

predecessors

n158 0

n17 0

n217 (Mul):

successors

n221 0

predecessors

n218 0

n218 (And):

successors

n217 0

predecessors

n240 0

n215 (And):

successors

n146 0

predecessors

n235 0

n216 (Mem):

successors

n57 0

predecessors

n17 0

n245 0

n219 (Or):

successors

n139 0

n140 0

predecessors

n127 0

n208 0

n202 (Mul):

successors

n44 0

predecessors

n203 0

n203 (And):

successors

n202 0

predecessors

n12 0

n200 (Add):

successors

n234 0

predecessors

n170 0

n201 (Add):

successors

n178 0

predecessors

n59 0

n206 (Mul):

successors

n183 0

predecessors

n207 0

n207 (And):

successors

n206 0

predecessors

n13 0

n204 (Mem):

successors

n189 0

predecessors

n17 0

n205 0

n205 (Add):

successors

n204 0

predecessors

n220 0

n208 (Add):

successors

n219 0

predecessors

n144 0

n209 0

n209 (Mem):

successors

n208 0

predecessors

n34 0

n182 0

n110 (Shift):

successors

n127 0

predecessors

n111 0

n231 (And):

successors

n187 0

predecessors

n232 0

n111 (Or):

successors

n110 0

n226 0

predecessors

n194 0

n232 (Shift):

successors

n231 0

predecessors

n76 0

n230 (Mem):

successors

n28 0

predecessors

n236 0

n34 0

n114 (Or):

successors

n196 0

n186 0

n224 0

n113 0

predecessors

n118 0

n108 0

n235 (Shift):

successors

n215 0

n115 (Mem):

successors

n97 0

predecessors

n17 0

n77 0

n236 (Add):

successors

n165 0

n230 0

n112 (And):

successors

n243 0

predecessors

n75 0

n233 (Shift):

successors

n6 0

n113 (And):

successors

n170 0

predecessors

n114 0

n234 (Mem):

successors

n177 0

predecessors

n17 0

n200 0

n118 (Or):

successors

n114 0

predecessors

n120 0

n119 0

n239 (Or):

successors

n91 0

predecessors

n197 0

n116 0

n119 (Shift):

successors

n118 0

predecessors

n26 0

n116 (Mem):

successors

n239 0

predecessors

n17 0

n117 0

n237 (Shift):

successors

n143 0

predecessors

n33 0

n117 (Add):

successors

n116 0

predecessors

n82 0

n238 (Mem):

successors

n89 0

predecessors

n17 0

n179 0

n220 (Mul):

successors

n205 0

predecessors

n73 0

n100 (Add):

successors

n99 0

predecessors

n131 0

n221 (Add):

successors

n106 0

predecessors

n217 0

n103 (Mem):

successors

n101 0

predecessors

n17 0

n71 0

n224 (Shift):

successors

n135 0

predecessors

n114 0

n104 (Or):

successors

n189 0

predecessors

n105 0

n106 0

n225 (Add):

successors

n90 0

predecessors

n69 0

n101 (Or):

successors

n80 0

predecessors

n103 0

n102 0

n222 (And):

successors

n180 0

n102 (Mem):

successors

n101 0

predecessors

n17 0

n183 0

n223 (Mul):

successors

n175 0

predecessors

n162 0

n107 (Mul):

successors

n192 0

predecessors

n7 0

n228 (Shift):

successors

n169 0

predecessors

n76 0

n108 (Add):

successors

n114 0

predecessors

n93 0

n109 0

n229 (Add):

successors

n92 0

predecessors

n84 0

n105 (Or):

successors

n104 0

predecessors

n141 0

n193 0

n226 (Shift):

successors

n127 0

predecessors

n111 0

n106 (Mem):

successors

n104 0

predecessors

n221 0

n17 0

n227 (Add):

successors

n161 0

predecessors

n14 0

n109 (Mem):

successors

n108 0

predecessors

n34 0

n56 0

n10 (Add):

successors

n9 0

predecessors

n19 0

n20 0

n140 (Shift):

successors

n13 0

predecessors

n219 0

n12 (Shift):

successors

n203 0

predecessors

n13 0

n11 (Mem):

successors

n9 0

predecessors

n34 0

n55 0

n14 (Mul):

successors

n227 0

predecessors

n15 0

n132 (And):

successors

n131 0

predecessors

n186 0

n13 (Or):

successors

n207 0

n63 0

n40 0

n12 0

predecessors

n139 0

n140 0

n133 (And):

successors

n173 0

predecessors

n63 0

n16 (Mem):

successors

n29 0

predecessors

n18 0

n17 0

n130 (Or):

successors

n129 0

n195 0

predecessors

n61 0

n88 0

n15 (And):

successors

n14 0

predecessors

n26 0

n131 (Mul):

successors

n100 0

predecessors

n132 0

n18 (Add):

successors

n16 0

predecessors

n25 0

n136 (Add):

successors

n58 0

predecessors

n187 0

n17 (Mem):

successors

n90 0

n92 0

n161 0

n98 0

n99 0

n58 0

n210 0

n16 0

n174 0

n197 0

n115 0

n178 0

n234 0

n212 0

n116 0

n238 0

n216 0

n81 0

n61 0

n43 0

n193 0

n242 0

n122 0

n141 0

n48 0

n103 0

n247 0

n167 0

n244 0

n102 0

n204 0

n106 0

n137 (Add):

successors

n81 0

predecessors

n173 0

n134 (Mul):

successors

n241 0

predecessors

n135 0

n19 (Or):

successors

n3 0

n10 0

predecessors

n81 0

n80 0

n135 (And):

successors

n134 0

predecessors

n224 0

n138 (Shift):

successors

n128 0

predecessors

n26 0

n139 (Shift):

successors

n13 0

predecessors

n219 0

n21 (Mul):

successors

n49 0

predecessors

n22 0

n20 (Or):

successors

n10 0

n87 0

predecessors

n176 0

n99 0

n23 (Add):

successors

n167 0

predecessors

n24 0

n22 (And):

successors

n21 0

predecessors

n33 0

n25 (Mul):

successors

n18 0

predecessors

n213 0

n121 (Shift):

successors

n246 0

predecessors

n33 0

n242 (Mem):

successors

n151 0

predecessors

n17 0

n52 0

n24 (Mul):

successors

n23 0

predecessors

n143 0

n122 (Mem):

successors

n94 0

predecessors

n17 0

n123 0

n243 (Mul):

successors

n245 0

predecessors

n112 0

n27 (Or):

successors

n26 0

predecessors

n68 0

n67 0

n240 (Shift):

successors

n218 0

n26 (Or):

successors

n163 0

n15 0

n120 0

n119 0

n138 0

n42 0

predecessors

n27 0

n28 0

n120 (Shift):

successors

n118 0

predecessors

n26 0

n241 (Add):

successors

n244 0

predecessors

n134 0

n29 (Or):

successors

n144 0

n95 0

predecessors

n16 0

n30 0

n125 (Shift):

successors

n124 0

predecessors

n33 0

n246 (And):

successors

n191 0

predecessors

n121 0

n28 (Add):

successors

n26 0

predecessors

n188 0

n230 0

n126 (Shift):

successors

n85 0

predecessors

n127 0

n247 (Mem):

successors

n91 0

predecessors

n17 0

n192 0

n123 (Add):

successors

n122 0

predecessors

n191 0

n244 (Mem):

successors

n177 0

predecessors

n241 0

n17 0

n124 (And):

successors

n159 0

predecessors

n125 0

n245 (Add):

successors

n216 0

predecessors

n243 0

n129 (Mul):

successors

n188 0

predecessors

n130 0

n127 (Or):

successors

n126 0

n83 0

n8 0

n172 0

n219 0

predecessors

n110 0

n226 0

n248 (Cmp):

predecessors

n66 0

n128 (And):

successors

n78 0

predecessors

n138 0

n249 (Cmp):

n30 (Or):

successors

n29 0

predecessors

n58 0

n57 0

n32 (Mul):

successors

n31 0

predecessors

n152 0

n161 (Mem):

successors

n97 0

predecessors

n17 0

n227 0

n31 (Add):

successors

n193 0

predecessors

n32 0

n162 (And):

successors

n223 0

predecessors

n76 0

n34 (Mem):

successors

n79 0

n230 0

n4 0

n156 0

n109 0

n11 0

n160 0

n209 0

n33 (Or):

successors

n121 0

n125 0

n237 0

n64 0

n22 0

predecessors

n185 0

n184 0

n160 (Mem):

successors

n149 0

predecessors

n164 0

n34 0

n36 (Or):

successors

n76 0

predecessors

n38 0

n37 0

n154 (Shift):

successors

n153 0

predecessors

n64 0

n35 (Add):

successors

n4 0

n157 0

predecessors

n55 0

n155 (Shift):

successors

n153 0

predecessors

n64 0

n38 (Shift):

successors

n36 0

n152 (And):

successors

n32 0

predecessors

n199 0

n37 (Shift):

successors

n36 0

n153 (Or):

predecessors

n154 0

n155 0

n158 (Add):

successors

n212 0

predecessors

n159 0

n39 (And):

successors

n72 0

predecessors

n40 0

n159 (Mul):

successors

n158 0

predecessors

n124 0

n156 (Mem):

successors

n51 0

predecessors

n165 0

n34 0

n157 (Add):

predecessors

n35 0

n41 (And):

successors

n53 0

predecessors

n42 0

n40 (Shift):

successors

n39 0

predecessors

n13 0

n43 (Mem):

successors

n80 0

predecessors

n17 0

n44 0

n150 (Add):

successors

n51 0

predecessors

n46 0

n151 0

n42 (Shift):

successors

n41 0

predecessors

n26 0

n151 (Or):

successors

n47 0

n150 0

predecessors

n242 0

n96 0

n45 (Add):

successors

n149 0

predecessors

n47 0

n46 0

n44 (Add):

successors

n43 0

predecessors

n202 0

n47 (Mul):

successors

n45 0

predecessors

n151 0

n143 (And):

successors

n24 0

predecessors

n237 0

n46 (Or):

successors

n150 0

n45 0

predecessors

n92 0

n91 0

n144 (Add):

successors

n208 0

predecessors

n29 0

n94 0

n49 (Add):

successors

n48 0

predecessors

n21 0

n141 (Mem):

successors

n105 0

predecessors

n142 0

n17 0

n48 (Mem):

successors

n166 0

predecessors

n49 0

n17 0

n142 (Add):

successors

n141 0

predecessors

n147 0

n147 (Mul):

successors

n142 0

predecessors

n148 0

n148 (And):

successors

n147 0

n145 (Add):

successors

n210 0

predecessors

n146 0

n146 (Mul):

successors

n145 0

predecessors

n215 0

n149 (Add):

successors

n76 0

predecessors

n45 0

n160 0

n0 (Mul):

successors

n54 0

predecessors

n1 0

n1 (And):

successors

n0 0

predecessors

n163 0

n2 (Add):

successors

n168 0

predecessors

n3 0

n4 0

n3 (Add):

successors

n2 0

predecessors

n19 0

n87 0

n4 (Mem):

successors

n2 0

predecessors

n35 0

n34 0

n5 (Mul):

successors

n62 0

predecessors

n6 0

n6 (And):

successors

n5 0

predecessors

n233 0

n50 (Or):

successors

n185 0

n184 0

predecessors

n51 0

n7 (And):

successors

n107 0

predecessors

n8 0

n180 (Mul):

successors

n179 0

predecessors

n222 0

n8 (Shift):

successors

n7 0

predecessors

n127 0

n52 (Add):

successors

n242 0

predecessors

n53 0

n9 (Add):

successors

n64 0

predecessors

n10 0

n11 0

n51 (Add):

successors

n50 0

predecessors

n156 0

n150 0

n54 (Add):

successors

n98 0

predecessors

n0 0

n183 (Add):

successors

n102 0

predecessors

n206 0

n53 (Mul):

successors

n52 0

predecessors

n41 0

n184 (Shift):

successors

n33 0

predecessors

n50 0

n56 (Add):

successors

n109 0

n55 0

predecessors

n182 0

n181 (Shift):

successors

n169 0

predecessors

n76 0

n55 (Add):

successors

n35 0

n11 0

predecessors

n56 0

n182 (Add):

successors

n56 0

n209 0

predecessors

n164 0

n58 (Mem):

successors

n30 0

predecessors

n136 0

n17 0

n176 (Or):

successors

n20 0

predecessors

n177 0

n178 0

n57 (Or):

successors

n30 0

predecessors

n174 0

n216 0

n177 (Or):

successors

n176 0

predecessors

n244 0

n234 0

n174 (Mem):

successors

n57 0

predecessors

n175 0

n17 0

n59 (Mul):

successors

n201 0

predecessors

n60 0

n175 (Add):

successors

n174 0

predecessors

n223 0

n178 (Mem):

successors

n176 0

predecessors

n17 0

n201 0

n179 (Add):

successors

n238 0

predecessors

n180 0

n61 (Mem):

successors

n130 0

predecessors

n17 0

n62 0

n60 (And):

successors

n59 0

predecessors

n196 0

n63 (Shift):

successors

n133 0

predecessors

n13 0

n62 (Add):

successors

n61 0

predecessors

n5 0

n65 (Add):

predecessors

n66 0

n172 (Shift):

successors

n171 0

predecessors

n127 0

n64 (Or):

successors

n154 0

n155 0

predecessors

n9 0

n33 0

n173 (Mul):

successors

n137 0

predecessors

n133 0

n67 (Shift):

successors

n27 0

n170 (Mul):

successors

n200 0

predecessors

n113 0

n66 (Add):

successors

n248 0

n65 0

n171 (And):

successors

n190 0

predecessors

n172 0

n69 (Mul):

successors

n225 0

predecessors

n70 0

n165 (Add):

successors

n164 0

n156 0

predecessors

n236 0

n68 (Shift):

successors

n27 0

n166 (Or):

successors

n211 0

predecessors

n48 0

n167 0

n163 (Shift):

successors

n1 0

predecessors

n26 0

n164 (Add):

successors

n182 0

n160 0

predecessors

n165 0

n169 (Or):

successors

n168 0

predecessors

n228 0

n181 0

n167 (Mem):

successors

n166 0

predecessors

n17 0

n23 0

n168 (Or):

predecessors

n169 0

n2 0

n70 (And):

successors

n69 0

predecessors

n86 0

n72 (Mul):

successors

n71 0

predecessors

n39 0

n71 (Add):

successors

n103 0

predecessors

n72 0

n74 (Shift):

successors

n73 0

n73 (And):

successors

n220 0

predecessors

n74 0

n76 (Or):

successors

n232 0

n214 0

n228 0

n75 0

n162 0

n181 0

predecessors

n36 0

n149 0

n75 (Shift):

successors

n112 0

predecessors

n76 0

n78 (Mul):

successors

n77 0

predecessors

n128 0

n77 (Add):

successors

n115 0

predecessors

n78 0

n198 (Add):

successors

n197 0

predecessors

n190 0

n79 (Mem):

successors

n194 0

predecessors

n34 0

n199 (Shift):

successors

n152 0

n196 (Shift):

successors

n60 0

predecessors

n114 0

n197 (Mem):

successors

n239 0

predecessors

n198 0

n17 0

n81 (Mem):

successors

n19 0

predecessors

n17 0

n137 0

n80 (Or):

successors

n19 0

predecessors

n101 0

n43 0

n83 (And):

successors

n82 0

predecessors

n127 0

n190 (Mul):

successors

n198 0

predecessors

n171 0

n82 (Mul):

successors

n117 0

predecessors

n83 0

n191 (Mul):

successors

n123 0

predecessors

n246 0

n85 (And):

successors

n84 0

predecessors

n126 0

n84 (Mul):

successors

n229 0

predecessors

n85 0

n87 (Mul):

successors

n3 0

predecessors

n20 0

n194 (Add):

successors

n111 0

predecessors

n79 0

n195 0

n86 (Shift):

successors

n70 0

n195 (Add):

successors

n194 0

predecessors

n130 0

n189 0

n89 (Or):

successors

n88 0

predecessors

n210 0

n238 0

n192 (Add):

successors

n247 0

predecessors

n107 0

n88 (Or):

successors

n130 0

predecessors

n90 0

n89 0

n193 (Mem):

successors

n105 0

predecessors

n17 0

n31 0

n187 (Mul):

successors

n136 0

predecessors

n231 0

n188 (Add):

successors

n28 0

predecessors

n189 0

n129 0

n185 (Shift):

successors

n33 0

predecessors

n50 0

n186 (Shift):

successors

n132 0

predecessors

n114 0

n189 (Or):

successors

n188 0

n195 0

predecessors

n104 0

n204 0

Nr of Nodes : 250

ASAP

Found schedule of length 76

n74 : [0:0]

n86 : [0:0]

n34 : [0:1]

n67 : [0:0]

n66 : [0:0]

n68 : [0:0]

n199 : [0:0]

n240 : [0:0]

n38 : [0:0]

n37 : [0:0]

n235 : [0:0]

n236 : [0:0]

n17 : [0:1]

n148 : [0:0]

n233 : [0:0]

n222 : [0:0]

n249 : [0:0]

n70 : [1:1]

n6 : [1:1]

n180 : [1:4]

n73 : [1:1]

n65 : [1:1]

n36 : [1:1]

n165 : [1:1]

n27 : [1:1]

n152 : [1:1]

n147 : [1:4]

n218 : [1:1]

n248 : [1:1]

n215 : [1:1]

n69 : [2:5]

n220 : [2:5]

n79 : [2:3]

n230 : [2:3]

n164 : [2:2]

n156 : [2:3]

n5 : [2:5]

n146 : [2:5]

n217 : [2:5]

n32 : [2:5]

n182 : [3:3]

n160 : [3:4]

n56 : [4:4]

n209 : [4:5]

n142 : [5:5]

n179 : [5:5]

n109 : [5:6]

n55 : [5:5]

n221 : [6:6]

n35 : [6:6]

n141 : [6:7]

n225 : [6:6]

n145 : [6:6]

n205 : [6:6]

n62 : [6:6]

n238 : [6:7]

n31 : [6:6]

n11 : [6:7]

n210 : [7:8]

n90 : [7:8]

n4 : [7:8]

n157 : [7:7]

n61 : [7:8]

n204 : [7:8]

n106 : [7:8]

n193 : [7:8]

n105 : [9:9]

n89 : [9:9]

n104 : [10:10]

n88 : [10:10]

n130 : [11:11]

n189 : [11:11]

n129 : [12:15]

n195 : [12:12]

n194 : [13:13]

n111 : [14:14]

n110 : [15:15]

n226 : [15:15]

n188 : [16:16]

n127 : [16:16]

n28 : [17:17]

n126 : [17:17]

n83 : [17:17]

n8 : [17:17]

n172 : [17:17]

n26 : [18:18]

n82 : [18:21]

n7 : [18:18]

n85 : [18:18]

n171 : [18:18]

n163 : [19:19]

n15 : [19:19]

n120 : [19:19]

n107 : [19:22]

n190 : [19:22]

n119 : [19:19]

n138 : [19:19]

n84 : [19:22]

n42 : [19:19]

n14 : [20:23]

n1 : [20:20]

n118 : [20:20]

n41 : [20:20]

n128 : [20:20]

n0 : [21:24]

n53 : [21:24]

n78 : [21:24]

n117 : [22:22]

n198 : [23:23]

n229 : [23:23]

n116 : [23:24]

n192 : [23:23]

n197 : [24:25]

n247 : [24:25]

n92 : [24:25]

n227 : [24:24]

n52 : [25:25]

n54 : [25:25]

n161 : [25:26]

n77 : [25:25]

n242 : [26:27]

n115 : [26:27]

n239 : [26:26]

n98 : [26:27]

n91 : [27:27]

n46 : [28:28]

n97 : [28:28]

n96 : [29:29]

n151 : [30:30]

n47 : [31:34]

n150 : [31:31]

n51 : [32:32]

n50 : [33:33]

n185 : [34:34]

n184 : [34:34]

n45 : [35:35]

n33 : [35:35]

n121 : [36:36]

n125 : [36:36]

n149 : [36:36]

n237 : [36:36]

n22 : [36:36]

n143 : [37:37]

n246 : [37:37]

n124 : [37:37]

n76 : [37:37]

n21 : [37:40]

n232 : [38:38]

n24 : [38:41]

n214 : [38:38]

n159 : [38:41]

n228 : [38:38]

n191 : [38:41]

n75 : [38:38]

n162 : [38:38]

n181 : [38:38]

n231 : [39:39]

n213 : [39:39]

n169 : [39:39]

n112 : [39:39]

n223 : [39:42]

n187 : [40:43]

n25 : [40:43]

n243 : [40:43]

n49 : [41:41]

n48 : [42:43]

n158 : [42:42]

n123 : [42:42]

n23 : [42:42]

n122 : [43:44]

n175 : [43:43]

n167 : [43:44]

n212 : [43:44]

n174 : [44:45]

n136 : [44:44]

n18 : [44:44]

n245 : [44:44]

n58 : [45:46]

n166 : [45:45]

n16 : [45:46]

n216 : [45:46]

n211 : [46:46]

n57 : [47:47]

n94 : [47:47]

n30 : [48:48]

n29 : [49:49]

n144 : [50:50]

n95 : [50:53]

n208 : [51:51]

n219 : [52:52]

n139 : [53:53]

n140 : [53:53]

n13 : [54:54]

n93 : [54:54]

n108 : [55:55]

n207 : [55:55]

n63 : [55:55]

n40 : [55:55]

n12 : [55:55]

n133 : [56:56]

n114 : [56:56]

n39 : [56:56]

n203 : [56:56]

n206 : [56:59]

n196 : [57:57]

n186 : [57:57]

n224 : [57:57]

n202 : [57:60]

n113 : [57:57]

n72 : [57:60]

n173 : [57:60]

n132 : [58:58]

n135 : [58:58]

n60 : [58:58]

n170 : [58:61]

n131 : [59:62]

n59 : [59:62]

n134 : [59:62]

n183 : [60:60]

n137 : [61:61]

n102 : [61:62]

n71 : [61:61]

n44 : [61:61]

n103 : [62:63]

n200 : [62:62]

n81 : [62:63]

n43 : [62:63]

n100 : [63:63]

n241 : [63:63]

n201 : [63:63]

n234 : [63:64]

n244 : [64:65]

n178 : [64:65]

n101 : [64:64]

n99 : [64:65]

n80 : [65:65]

n177 : [66:66]

n19 : [66:66]

n176 : [67:67]

n20 : [68:68]

n87 : [69:72]

n10 : [69:69]

n9 : [70:70]

n64 : [71:71]

n154 : [72:72]

n155 : [72:72]

n153 : [73:73]

n3 : [73:73]

n2 : [74:74]

n168 : [75:75]

Registered resources

MUL 59 18.4

MUL 40 18.4

MUL 21 18.4

MUL 4 18.4

MUL 3 18.4

MUL 2 18.4

MUL 60 16.099999999999998

MUL 41 16.099999999999998

MUL 22 16.099999999999998

MUL 5 13.799999999999999

MUL 58 11.5

MUL 39 11.5

MUL 20 11.5

MUL 61 9.2

MUL 57 9.2

MUL 42 9.2

MUL 38 9.2

MUL 23 9.2

MUL 19 9.2

MUL 62 6.8999999999999995

MUL 43 6.8999999999999995

MUL 24 6.8999999999999995

MUL 1 4.6

MUL 72 2.3

MUL 71 2.3

MUL 70 2.3

MUL 69 2.3

MUL 56 2.3

MUL 53 2.3

MUL 52 2.3

MUL 51 2.3

MUL 50 2.3

MUL 37 2.3

MUL 34 2.3

MUL 33 2.3

MUL 32 2.3

MUL 31 2.3

MUL 18 2.3

MUL 15 2.3

MUL 14 2.3

MUL 13 2.3

MUL 12 2.3

CMP 1 2.1

CMP 0 2.1

ADD 6 7.0

ADD 63 3.0

ADD 61 3.0

ADD 44 3.0

ADD 42 3.0

ADD 25 3.0

ADD 23 3.0

ADD 5 3.0

ADD 1 2.0

ADD 0 2.0

ADD 74 1.0

ADD 73 1.0

ADD 70 1.0

ADD 69 1.0

ADD 62 1.0

ADD 60 1.0

ADD 55 1.0

ADD 54 1.0

ADD 51 1.0

ADD 50 1.0

ADD 43 1.0

ADD 41 1.0

ADD 36 1.0

ADD 35 1.0

ADD 32 1.0

ADD 31 1.0

ADD 24 1.0

ADD 22 1.0

ADD 17 1.0

ADD 16 1.0

ADD 13 1.0

ADD 12 1.0

ADD 7 1.0

ADD 4 1.0

ADD 3 1.0

ADD 2 1.0

AND 1 12.0

AND 58 6.0

AND 56 6.0

AND 39 6.0

AND 37 6.0

AND 20 6.0

AND 18 6.0

AND 0 4.0

AND 57 2.0

AND 55 2.0

AND 38 2.0

AND 36 2.0

AND 19 2.0

AND 17 2.0

MEM 7 90.0

MEM 8 63.0

MEM 64 36.0

MEM 63 36.0

MEM 62 36.0

MEM 45 36.0

MEM 44 36.0

MEM 43 36.0

MEM 26 36.0

MEM 25 36.0

MEM 24 36.0

MEM 6 36.0

MEM 3 36.0

MEM 65 27.0

MEM 46 27.0

MEM 27 27.0

MEM 2 27.0

MEM 5 18.0

MEM 4 18.0

MEM 1 18.0

MEM 0 18.0

MEM 61 9.0

MEM 42 9.0

MEM 23 9.0

OR 66 4.0

OR 47 4.0

OR 28 4.0

OR 11 4.0

OR 10 4.0

OR 9 4.0

OR 1 4.0

OR 75 2.0

OR 73 2.0

OR 71 2.0

OR 68 2.0

OR 67 2.0

OR 65 2.0

OR 64 2.0

OR 56 2.0

OR 54 2.0

OR 52 2.0

OR 49 2.0

OR 48 2.0

OR 46 2.0

OR 45 2.0

OR 39 2.0

OR 37 2.0

OR 35 2.0

OR 33 2.0

OR 30 2.0

OR 29 2.0

OR 27 2.0

OR 26 2.0

OR 20 2.0

OR 18 2.0

OR 16 2.0

OR 14 2.0

SH 0 20.0

SH 38 10.0

SH 19 10.0

SH 57 6.0

SH 55 6.0

SH 36 6.0

SH 17 6.0

SH 72 4.0

SH 53 4.0

SH 34 4.0

SH 15 4.0

cost = 153.5

ALAP

Found schedule of length 76

n235 : [0:0]

n222 : [1:1]

n215 : [1:1]

n86 : [1:1]

n70 : [2:2]

n233 : [2:2]

n146 : [2:5]

n180 : [2:5]

n69 : [3:6]

n6 : [3:3]

n199 : [4:4]

n5 : [4:7]

n240 : [5:5]

n152 : [5:5]

n17 : [5:6]

n148 : [5:5]

n147 : [6:9]

n145 : [6:6]

n179 : [6:6]

n218 : [6:6]

n74 : [6:6]

n32 : [6:9]

n210 : [7:8]

n225 : [7:7]

n217 : [7:10]

n238 : [7:8]

n73 : [7:7]

n220 : [8:11]

n90 : [8:9]

n62 : [8:8]

n61 : [9:10]

n89 : [9:9]

n142 : [10:10]

n31 : [10:10]

n88 : [10:10]

n221 : [11:11]

n130 : [11:11]

n141 : [11:12]

n193 : [11:12]

n129 : [12:15]

n106 : [12:13]

n205 : [12:12]

n204 : [13:14]

n105 : [13:13]

n34 : [13:14]

n236 : [14:14]

n104 : [14:14]

n230 : [15:16]

n189 : [15:15]

n68 : [16:16]

n188 : [16:16]

n67 : [16:16]

n79 : [17:18]

n27 : [17:17]

n28 : [17:17]

n26 : [18:18]

n195 : [18:18]

n138 : [19:19]

n194 : [19:19]

n111 : [20:20]

n163 : [20:20]

n15 : [20:20]

n128 : [20:20]

n14 : [21:24]

n110 : [21:21]

n1 : [21:21]

n226 : [21:21]

n42 : [21:21]

n78 : [21:24]

n0 : [22:25]

n41 : [22:22]

n127 : [22:22]

n172 : [23:23]

n53 : [23:26]

n83 : [24:24]

n8 : [24:24]

n171 : [24:24]

n126 : [25:25]

n190 : [25:28]

n7 : [25:25]

n82 : [25:28]

n227 : [25:25]

n77 : [25:25]

n115 : [26:27]

n107 : [26:29]

n85 : [26:26]

n54 : [26:26]

n161 : [26:27]

n52 : [27:27]

n84 : [27:30]

n98 : [27:28]

n242 : [28:29]

n97 : [28:28]

n198 : [29:29]

n96 : [29:29]

n117 : [29:29]

n197 : [30:31]

n116 : [30:31]

n151 : [30:30]

n192 : [30:30]

n47 : [31:34]

n247 : [31:32]

n229 : [31:31]

n165 : [32:32]

n92 : [32:33]

n239 : [32:32]

n164 : [33:33]

n91 : [33:33]

n46 : [34:34]

n160 : [34:35]

n38 : [35:35]

n37 : [35:35]

n45 : [35:35]

n36 : [36:36]

n156 : [36:37]

n149 : [36:36]

n76 : [37:37]

n150 : [37:37]

n51 : [38:38]

n75 : [38:38]

n232 : [39:39]

n112 : [39:39]

n50 : [39:39]

n162 : [39:39]

n231 : [40:40]

n243 : [40:43]

n185 : [40:40]

n214 : [40:40]

n223 : [40:43]

n184 : [40:40]

n187 : [41:44]

n213 : [41:41]

n33 : [41:41]

n25 : [42:45]

n237 : [42:42]

n143 : [43:43]

n125 : [43:43]

n22 : [43:43]

n121 : [44:44]

n24 : [44:47]

n175 : [44:44]

n245 : [44:44]

n124 : [44:44]

n21 : [44:47]

n174 : [45:46]

n136 : [45:45]

n246 : [45:45]

n159 : [45:48]

n216 : [45:46]

n58 : [46:47]

n18 : [46:46]

n191 : [46:49]

n57 : [47:47]

n16 : [47:48]

n49 : [48:48]

n30 : [48:48]

n23 : [48:48]

n48 : [49:50]

n29 : [49:49]

n158 : [49:49]

n167 : [49:50]

n123 : [50:50]

n212 : [50:51]

n95 : [50:53]

n122 : [51:52]

n166 : [51:51]

n182 : [51:51]

n211 : [52:52]

n56 : [52:52]

n94 : [53:53]

n109 : [53:54]

n209 : [53:54]

n144 : [54:54]

n120 : [54:54]

n119 : [54:54]

n93 : [54:54]

n118 : [55:55]

n108 : [55:55]

n208 : [55:55]

n114 : [56:56]

n219 : [56:56]

n224 : [57:57]

n139 : [57:57]

n140 : [57:57]

n13 : [58:58]

n196 : [58:58]

n135 : [58:58]

n113 : [58:58]

n186 : [59:59]

n134 : [59:62]

n60 : [59:59]

n40 : [59:59]

n170 : [59:62]

n132 : [60:60]

n59 : [60:63]

n39 : [60:60]

n207 : [60:60]

n12 : [60:60]

n131 : [61:64]

n203 : [61:61]

n72 : [61:64]

n206 : [61:64]

n63 : [61:61]

n133 : [62:62]

n202 : [62:65]

n241 : [63:63]

n200 : [63:63]

n173 : [63:66]

n244 : [64:65]

n234 : [64:65]

n201 : [64:64]

n100 : [65:65]

n178 : [65:66]

n71 : [65:65]

n183 : [65:65]

n177 : [66:66]

n103 : [66:67]

n102 : [66:67]

n99 : [66:67]

n44 : [66:66]

n176 : [67:67]

n137 : [67:67]

n43 : [67:68]

n81 : [68:69]

n101 : [68:68]

n20 : [68:68]

n80 : [69:69]

n87 : [69:72]

n55 : [69:69]

n19 : [70:70]

n11 : [70:71]

n35 : [71:71]

n10 : [71:71]

n4 : [72:73]

n9 : [72:72]

n3 : [73:73]

n228 : [73:73]

n64 : [73:73]

n181 : [73:73]

n154 : [74:74]

n155 : [74:74]

n169 : [74:74]

n2 : [74:74]

n66 : [74:74]

n153 : [75:75]

n157 : [75:75]

n168 : [75:75]

n248 : [75:75]

n249 : [75:75]

n65 : [75:75]

Registered resources

MUL 62 16.099999999999998

MUL 63 13.799999999999999

MUL 61 13.799999999999999

MUL 64 11.5

MUL 47 9.2

MUL 46 9.2

MUL 45 9.2

MUL 44 9.2

MUL 43 9.2

MUL 42 9.2

MUL 28 9.2

MUL 27 9.2

MUL 26 9.2

MUL 25 9.2

MUL 24 9.2

MUL 23 9.2

MUL 9 9.2

MUL 8 9.2

MUL 7 9.2

MUL 6 9.2

MUL 5 9.2

MUL 4 9.2

MUL 60 6.8999999999999995

MUL 41 6.8999999999999995

MUL 22 6.8999999999999995

MUL 3 6.8999999999999995

MUL 65 4.6

MUL 59 4.6

MUL 48 4.6

MUL 40 4.6

MUL 29 4.6

MUL 21 4.6

MUL 10 4.6

MUL 2 4.6

MUL 72 2.3

MUL 71 2.3

MUL 70 2.3

MUL 69 2.3

MUL 66 2.3

MUL 53 2.3

MUL 52 2.3

MUL 51 2.3

MUL 50 2.3

MUL 49 2.3

MUL 34 2.3

MUL 33 2.3

MUL 32 2.3

MUL 31 2.3

MUL 30 2.3

MUL 15 2.3

MUL 14 2.3

MUL 13 2.3

MUL 12 2.3

MUL 11 2.3

CMP 75 4.2

ADD 65 3.0

ADD 75 2.0

ADD 74 2.0

ADD 71 2.0

ADD 63 2.0

ADD 55 2.0

ADD 54 2.0

ADD 48 2.0

ADD 44 2.0

ADD 29 2.0

ADD 25 2.0

ADD 10 2.0

ADD 6 2.0

ADD 73 1.0

ADD 72 1.0

ADD 69 1.0

ADD 67 1.0

ADD 66 1.0

ADD 64 1.0

ADD 52 1.0

ADD 51 1.0

ADD 50 1.0

ADD 49 1.0

ADD 46 1.0

ADD 45 1.0

ADD 38 1.0

ADD 37 1.0

ADD 36 1.0

ADD 35 1.0

ADD 33 1.0

ADD 32 1.0

ADD 31 1.0

ADD 30 1.0

ADD 27 1.0

ADD 26 1.0

ADD 19 1.0

ADD 18 1.0

ADD 17 1.0

ADD 16 1.0

ADD 14 1.0

ADD 12 1.0

ADD 11 1.0

ADD 8 1.0

ADD 7 1.0

AND 60 6.0

AND 58 4.0

AND 43 4.0

AND 39 4.0

AND 24 4.0

AND 20 4.0

AND 5 4.0

AND 1 4.0

AND 62 2.0

AND 61 2.0

AND 59 2.0

AND 45 2.0

AND 44 2.0

AND 41 2.0

AND 40 2.0

AND 26 2.0

AND 25 2.0

AND 22 2.0

AND 21 2.0

AND 7 2.0

AND 6 2.0

AND 3 2.0

AND 2 2.0

OR 75 4.0

OR 68 4.0

OR 56 4.0

OR 74 2.0

OR 73 2.0

OR 70 2.0

OR 69 2.0

OR 67 2.0

OR 66 2.0

OR 58 2.0

OR 55 2.0

OR 53 2.0

OR 52 2.0

OR 51 2.0

OR 49 2.0

OR 48 2.0

OR 47 2.0

OR 41 2.0

OR 39 2.0

OR 37 2.0

OR 36 2.0

OR 34 2.0

OR 33 2.0

OR 32 2.0

OR 30 2.0

OR 29 2.0

OR 28 2.0

OR 22 2.0

OR 20 2.0

OR 18 2.0

OR 17 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

MEM 67 36.0

MEM 66 36.0

MEM 65 27.0

MEM 50 27.0

MEM 46 27.0

MEM 31 27.0

MEM 27 27.0

MEM 13 27.0

MEM 12 27.0

MEM 8 27.0

MEM 68 18.0

MEM 64 18.0

MEM 54 18.0

MEM 53 18.0

MEM 51 18.0

MEM 49 18.0

MEM 47 18.0

MEM 45 18.0

MEM 32 18.0

MEM 30 18.0

MEM 28 18.0

MEM 26 18.0

MEM 14 18.0

MEM 11 18.0

MEM 9 18.0

MEM 7 18.0

MEM 73 9.0

MEM 72 9.0

MEM 71 9.0

MEM 70 9.0

MEM 69 9.0

MEM 52 9.0

MEM 48 9.0

MEM 37 9.0

MEM 36 9.0

MEM 35 9.0

MEM 34 9.0

MEM 33 9.0

MEM 29 9.0

MEM 18 9.0

MEM 17 9.0

MEM 16 9.0

MEM 15 9.0

MEM 10 9.0

MEM 6 9.0

MEM 5 9.0

SH 57 6.0

SH 40 6.0

SH 21 6.0

SH 74 4.0

SH 73 4.0

SH 59 4.0

SH 54 4.0

SH 35 4.0

SH 16 4.0

SH 61 2.0

SH 60 2.0

SH 58 2.0

SH 44 2.0

SH 43 2.0

SH 42 2.0

SH 39 2.0

SH 38 2.0

SH 25 2.0

SH 24 2.0

SH 23 2.0

SH 20 2.0

SH 19 2.0

SH 6 2.0

SH 5 2.0

SH 4 2.0

SH 2 2.0

SH 1 2.0

SH 0 2.0

cost = 75.3

# TwofishEngine-RS\_MDS\_Encode-5-196

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59123:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/TwofishEngine-RS\_MDS\_Encode-5-196.dot

Scheduling scheduler-framework-master/graphs/TwofishEngine-RS\_MDS\_Encode-5-196.dot

n0 (Or):

successors

n23 0

predecessors

n1 0

n1 (Shift):

successors

n0 0

predecessors

n15 0

n2 (Or):

successors

n25 0

predecessors

n3 0

n4 0

n3 (Or):

successors

n2 0

predecessors

n13 0

n22 0

n4 (Shift):

successors

n2 0

predecessors

n9 0

n5 (Shift):

successors

n8 0

predecessors

n6 0

n6 (Or):

successors

n13 0

n5 0

predecessors

n36 0

n15 0

n7 (Shift):

successors

n10 0

predecessors

n8 0

n8 (And):

successors

n27 0

n38 0

n7 0

n32 0

n11 0

predecessors

n5 0

n30 (Add):

successors

n29 0

n34 0

n9 (And):

successors

n17 0

n4 0

predecessors

n10 0

n10 (Or):

successors

n9 0

predecessors

n7 0

n32 (And):

successors

n31 0

predecessors

n8 0

n31 (Cmp):

predecessors

n32 0

n12 (Cmp):

predecessors

n11 0

n34 (Cmp):

predecessors

n30 0

n11 (And):

successors

n12 0

predecessors

n8 0

n33 (Cmp):

predecessors

n14 0

n14 (And):

successors

n33 0

predecessors

n15 0

n36 (Or):

successors

n6 0

predecessors

n37 0

n28 0

n13 (Shift):

successors

n3 0

predecessors

n6 0

n35 (And):

successors

n42 0

predecessors

n15 0

n16 (Shift):

successors

n15 0

n38 (Shift):

successors

n18 0

predecessors

n8 0

n15 (And):

successors

n14 0

n35 0

n1 0

n19 0

n6 0

predecessors

n16 0

n37 (Or):

successors

n36 0

predecessors

n24 0

n39 0

n18 (Or):

successors

n17 0

predecessors

n38 0

n17 (Or):

successors

n26 0

n22 0

predecessors

n18 0

n9 0

n39 (Or):

successors

n37 0

predecessors

n41 0

n40 0

n19 (Shift):

successors

n21 0

predecessors

n15 0

n41 (Shift):

successors

n39 0

predecessors

n23 0

n40 (Shift):

successors

n39 0

n21 (Or):

successors

n20 0

predecessors

n19 0

n43 (Cmp):

n20 (And):

successors

n24 0

n23 0

predecessors

n21 0

n42 (Cmp):

predecessors

n35 0

n23 (Or):

successors

n28 0

n41 0

predecessors

n0 0

n20 0

n22 (Shift):

successors

n3 0

predecessors

n17 0

n25 (Or):

successors

n27 0

predecessors

n26 0

n2 0

n24 (Shift):

successors

n37 0

predecessors

n20 0

n27 (Or):

predecessors

n25 0

n8 0

n26 (Shift):

successors

n25 0

predecessors

n17 0

n29 (Add):

predecessors

n30 0

n28 (Shift):

successors

n36 0

predecessors

n23 0

Nr of Nodes : 44

ASAP

Found schedule of length 22

n16 : [0:0]

n30 : [0:0]

n40 : [0:0]

n43 : [0:0]

n15 : [1:1]

n29 : [1:1]

n34 : [1:1]

n14 : [2:2]

n35 : [2:2]

n1 : [2:2]

n19 : [2:2]

n0 : [3:3]

n21 : [3:3]

n42 : [3:3]

n33 : [3:3]

n20 : [4:4]

n24 : [5:5]

n23 : [5:5]

n28 : [6:6]

n41 : [6:6]

n39 : [7:7]

n37 : [8:8]

n36 : [9:9]

n6 : [10:10]

n13 : [11:11]

n5 : [11:11]

n8 : [12:12]

n38 : [13:13]

n7 : [13:13]

n32 : [13:13]

n11 : [13:13]

n18 : [14:14]

n10 : [14:14]

n31 : [14:14]

n12 : [14:14]

n9 : [15:15]

n17 : [16:16]

n4 : [16:16]

n26 : [17:17]

n22 : [17:17]

n3 : [18:18]

n2 : [19:19]

n25 : [20:20]

n27 : [21:21]

Registered resources

OR 14 4.0

OR 3 4.0

OR 21 2.0

OR 20 2.0

OR 19 2.0

OR 18 2.0

OR 16 2.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 7 2.0

OR 5 2.0

CMP 14 4.2

CMP 3 4.2

CMP 1 2.1

CMP 0 2.1

AND 13 4.0

AND 2 4.0

AND 15 2.0

AND 12 2.0

AND 4 2.0

AND 1 2.0

ADD 1 1.0

ADD 0 1.0

SH 17 4.0

SH 13 4.0

SH 11 4.0

SH 6 4.0

SH 2 4.0

SH 0 4.0

SH 16 2.0

SH 5 2.0

cost = 17.2

ALAP

Found schedule of length 22

n16 : [0:0]

n15 : [1:1]

n19 : [2:2]

n1 : [3:3]

n21 : [3:3]

n0 : [4:4]

n20 : [4:4]

n23 : [5:5]

n41 : [6:6]

n40 : [6:6]

n24 : [7:7]

n39 : [7:7]

n37 : [8:8]

n28 : [8:8]

n36 : [9:9]

n6 : [10:10]

n5 : [11:11]

n8 : [12:12]

n7 : [13:13]

n38 : [14:14]

n10 : [14:14]

n18 : [15:15]

n9 : [15:15]

n17 : [16:16]

n13 : [17:17]

n22 : [17:17]

n3 : [18:18]

n4 : [18:18]

n26 : [19:19]

n2 : [19:19]

n25 : [20:20]

n14 : [20:20]

n35 : [20:20]

n30 : [20:20]

n32 : [20:20]

n11 : [20:20]

n27 : [21:21]

n29 : [21:21]

n43 : [21:21]

n31 : [21:21]

n42 : [21:21]

n12 : [21:21]

n34 : [21:21]

n33 : [21:21]

Registered resources

OR 21 2.0

OR 20 2.0

OR 19 2.0

OR 18 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 10 2.0

OR 9 2.0

OR 8 2.0

OR 7 2.0

OR 5 2.0

OR 4 2.0

OR 3 2.0

CMP 21 12.600000000000001

AND 20 8.0

AND 15 2.0

AND 12 2.0

AND 4 2.0

AND 1 2.0

ADD 21 1.0

ADD 20 1.0

SH 17 4.0

SH 6 4.0

SH 19 2.0

SH 18 2.0

SH 14 2.0

SH 13 2.0

SH 11 2.0

SH 8 2.0

SH 7 2.0

SH 3 2.0

SH 2 2.0

SH 0 2.0

cost = 27.6

# TwofishEngine-setKey-113-1859

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59150:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/TwofishEngine-setKey-113-1859.dot

Scheduling scheduler-framework-master/graphs/TwofishEngine-setKey-113-1859.dot

n90 (And):

successors

n188 0

predecessors

n91 0

n92 (And):

successors

n161 0

predecessors

n93 0

n91 (Mem):

successors

n90 0

predecessors

n195 0

n94 (Or):

predecessors

n9 0

n95 0

n93 (Shift):

successors

n92 0

predecessors

n48 0

n96 (Mem):

successors

n174 0

predecessors

n98 0

n97 0

n95 (And):

successors

n94 0

predecessors

n135 0

n98 (Or):

successors

n96 0

predecessors

n233 0

n260 0

n97 (Mem):

successors

n96 0

n99 (And):

successors

n312 0

predecessors

n100 0

n312 (Or):

predecessors

n222 0

n99 0

n313 (Mem):

successors

n72 0

predecessors

n314 0

n67 0

n310 (Or):

predecessors

n311 0

n181 0

n311 (And):

successors

n310 0

predecessors

n62 0

n316 (Or):

successors

n268 0

predecessors

n277 0

n307 0

n317 (Cmp):

predecessors

n318 0

n314 (Mem):

successors

n313 0

n315 (Mem):

successors

n236 0

n318 (Div):

successors

n317 0

n319 (Mem):

successors

n283 0

predecessors

n328 0

n309 0

n301 (Mem):

successors

n248 0

predecessors

n330 0

n309 0

n302 (Mem):

successors

n20 0

n300 (Shift):

successors

n274 0

predecessors

n157 0

n305 (Or):

predecessors

n117 0

n84 0

n306 (Mem):

successors

n303 0

n303 (Mem):

successors

n133 0

predecessors

n306 0

n304 (Or):

successors

n55 0

predecessors

n58 0

n213 0

n309 (And):

successors

n301 0

n319 0

predecessors

n44 0

n307 (Mem):

successors

n316 0

predecessors

n207 0

n308 0

n308 (Mem):

successors

n307 0

n330 (Mem):

successors

n301 0

n210 (And):

successors

n212 0

n219 0

predecessors

n4 0

n331 (Cmp):

predecessors

n178 0

n213 (And):

successors

n304 0

predecessors

n158 0

n214 (Or):

predecessors

n215 0

n216 0

n211 (And):

successors

n107 0

predecessors

n212 0

n332 (Add):

n212 (Mem):

successors

n211 0

predecessors

n210 0

n218 0

n217 (Mem):

successors

n118 0

n218 (Mem):

successors

n212 0

n215 (And):

successors

n214 0

predecessors

n167 0

n216 (And):

successors

n214 0

predecessors

n103 0

n219 (Mem):

successors

n282 0

predecessors

n220 0

n210 0

n320 (Mem):

successors

n34 0

predecessors

n326 0

n202 (Mem):

successors

n17 0

predecessors

n203 0

n204 0

n323 (Or):

predecessors

n324 0

n282 0

n203 (Mem):

successors

n202 0

n324 (And):

successors

n323 0

predecessors

n297 0

n200 (Or):

successors

n261 0

predecessors

n49 0

n201 0

n321 (Mem):

successors

n268 0

predecessors

n59 0

n322 0

n201 (And):

successors

n200 0

predecessors

n140 0

n322 (Mem):

successors

n321 0

n206 (Mem):

successors

n205 0

n327 (Mem):

successors

n269 0

n207 (Or):

successors

n307 0

predecessors

n208 0

n209 0

n328 (Mem):

successors

n319 0

n204 (Or):

successors

n202 0

predecessors

n54 0

n23 0

n325 (Cmp):

predecessors

n166 0

n205 (Mem):

successors

n52 0

predecessors

n206 0

n326 (Mem):

successors

n320 0

n208 (And):

successors

n207 0

predecessors

n56 0

n329 (Mem):

successors

n55 0

n209 (And):

successors

n207 0

predecessors

n48 0

n110 (And):

successors

n247 0

predecessors

n111 0

n231 (And):

successors

n279 0

predecessors

n232 0

n111 (Shift):

successors

n110 0

predecessors

n63 0

n232 (Shift):

successors

n231 0

predecessors

n48 0

n230 (And):

successors

n180 0

n226 0

predecessors

n46 0

n114 (And):

successors

n107 0

predecessors

n36 0

n235 (And):

successors

n292 0

predecessors

n236 0

n115 (And):

successors

n285 0

predecessors

n116 0

n236 (Mem):

successors

n235 0

predecessors

n315 0

n112 (Shift):

successors

n134 0

predecessors

n29 0

n233 (And):

successors

n98 0

predecessors

n234 0

n113 (Cmp):

predecessors

n74 0

n234 (Shift):

successors

n233 0

predecessors

n37 0

n118 (Mem):

successors

n117 0

predecessors

n217 0

n239 (Mem):

successors

n153 0

predecessors

n240 0

n241 0

n119 (Shift):

successors

n250 0

predecessors

n48 0

n116 (Mem):

successors

n115 0

predecessors

n265 0

n266 0

n237 (Mem):

successors

n7 0

predecessors

n291 0

n117 (And):

successors

n305 0

predecessors

n118 0

n238 (Mem):

successors

n226 0

n220 (Mem):

successors

n219 0

n100 (Shift):

successors

n99 0

predecessors

n135 0

n221 (And):

successors

n256 0

predecessors

n48 0

n103 (Shift):

successors

n216 0

predecessors

n101 0

n224 (Or):

successors

n148 0

predecessors

n175 0

n105 0

n104 (Mem):

successors

n81 0

predecessors

n191 0

n225 (And):

successors

n241 0

predecessors

n226 0

n101 (Mem):

successors

n295 0

n103 0

n53 0

n22 0

n222 (And):

successors

n312 0

predecessors

n11 0

n102 (Shift):

successors

n132 0

predecessors

n45 0

n223 (Mem):

successors

n297 0

n286 0

n3 0

n146 0

n107 (Or):

successors

n105 0

predecessors

n114 0

n211 0

n228 (Mem):

successors

n227 0

n108 (And):

successors

n249 0

predecessors

n109 0

n229 (Mem):

successors

n180 0

n105 (Mem):

successors

n224 0

predecessors

n107 0

n106 0

n226 (Mem):

successors

n225 0

predecessors

n230 0

n238 0

n106 (Mem):

successors

n105 0

n227 (Mem):

successors

n263 0

predecessors

n228 0

n109 (Shift):

successors

n108 0

predecessors

n63 0

n10 (Mem):

successors

n9 0

predecessors

n25 0

n260 (And):

successors

n98 0

predecessors

n186 0

n140 (Mem):

successors

n201 0

predecessors

n141 0

n142 0

n261 (Mem):

successors

n17 0

predecessors

n262 0

n200 0

n12 (Mem):

successors

n11 0

n11 (Mem):

successors

n222 0

predecessors

n12 0

n14 (Mem):

successors

n13 0

n132 (And):

successors

n130 0

n1 0

predecessors

n102 0

n253 (Mem):

successors

n252 0

n13 (Mem):

successors

n193 0

predecessors

n14 0

n15 0

n133 (And):

successors

n32 0

predecessors

n303 0

n254 (Mem):

successors

n290 0

predecessors

n255 0

n256 0

n16 (Or):

successors

n174 0

predecessors

n18 0

n17 0

n130 (Mem):

successors

n181 0

predecessors

n132 0

n131 0

n251 (Cmp):

predecessors

n69 0

n15 (And):

successors

n13 0

n298 0

predecessors

n45 0

n131 (Mem):

successors

n130 0

n252 (Mem):

successors

n197 0

predecessors

n253 0

n18 (Mem):

successors

n16 0

predecessors

n284 0

n40 0

n136 (Mem):

successors

n76 0

n257 (And):

successors

n79 0

predecessors

n258 0

n17 (Or):

successors

n16 0

predecessors

n202 0

n261 0

n137 (Or):

successors

n76 0

predecessors

n274 0

n19 0

n258 (Shift):

successors

n257 0

predecessors

n157 0

n134 (And):

successors

n32 0

predecessors

n112 0

n255 (Mem):

successors

n254 0

n19 (And):

successors

n137 0

predecessors

n20 0

n135 (Mem):

successors

n100 0

n85 0

n259 0

n95 0

n256 (Or):

successors

n254 0

predecessors

n221 0

n288 0

n138 (Shift):

successors

n35 0

predecessors

n157 0

n259 (Shift):

successors

n198 0

predecessors

n135 0

n139 (Shift):

successors

n145 0

predecessors

n5 0

n21 (And):

successors

n80 0

predecessors

n22 0

n20 (Mem):

successors

n19 0

predecessors

n302 0

n250 (And):

successors

n241 0

predecessors

n119 0

n23 (And):

successors

n204 0

predecessors

n24 0

n22 (Shift):

successors

n21 0

predecessors

n101 0

n25 (Mem):

successors

n10 0

n121 (Mem):

successors

n120 0

n242 (Mem):

successors

n173 0

n24 (Shift):

successors

n23 0

predecessors

n37 0

n122 (Or):

successors

n120 0

predecessors

n246 0

n280 0

n243 (Cmp):

predecessors

n244 0

n27 (And):

successors

n26 0

predecessors

n70 0

n240 (Mem):

successors

n239 0

n26 (Cmp):

predecessors

n27 0

n120 (Mem):

successors

n148 0

predecessors

n121 0

n122 0

n241 (Or):

successors

n239 0

predecessors

n225 0

n250 0

n29 (Mem):

successors

n28 0

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predecessors

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successors

n122 0

predecessors

n143 0

n28 (And):

successors

n142 0

predecessors

n29 0

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successors

n155 0

n125 0

predecessors

n183 0

n89 0

n247 (Or):

predecessors

n110 0

n248 0

n123 (And):

successors

n182 0

predecessors

n70 0

n244 (And):

successors

n243 0

predecessors

n70 0

n124 (Shift):

successors

n245 0

predecessors

n29 0

n245 (And):

successors

n188 0

predecessors

n124 0

n129 (Or):

successors

n127 0

predecessors

n283 0

n162 0

n127 (Mem):

successors

n290 0

predecessors

n129 0

n128 0

n248 (And):

successors

n247 0

predecessors

n301 0

n128 (Mem):

successors

n127 0

n249 (Or):

predecessors

n179 0

n108 0

n30 (Mem):

successors

n41 0

predecessors

n32 0

n31 0

n32 (Or):

successors

n30 0

predecessors

n133 0

n134 0

n161 (Or):

successors

n154 0

predecessors

n0 0

n92 0

n282 (And):

successors

n323 0

predecessors

n219 0

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successors

n30 0

n162 (And):

successors

n129 0

predecessors

n163 0

n283 (And):

successors

n129 0

predecessors

n319 0

n34 (And):

successors

n33 0

predecessors

n320 0

n280 (And):

successors

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predecessors

n281 0

n33 (Or):

successors

n173 0

predecessors

n35 0

n34 0

n160 (Mem):

successors

n154 0

n281 (Shift):

successors

n280 0

predecessors

n37 0

n36 (Shift):

successors

n114 0

predecessors

n37 0

n154 (Mem):

successors

n152 0

predecessors

n161 0

n160 0

n275 (Mem):

successors

n273 0

predecessors

n276 0

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n35 (And):

successors

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successors

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n273 (And):

successors

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n275 0

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successors

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successors

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predecessors

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n274 (And):

successors

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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successors

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predecessors

n296 0

n42 (And):

successors

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predecessors

n190 0

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n272 (Or):

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n45 0

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n271 0

n272 0

n47 (Shift):

successors

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predecessors

n48 0

n143 (Mem):

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predecessors

n144 0

n145 0

n264 (Shift):

successors

n170 0

predecessors

n37 0

n46 (Shift):

successors

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n143 0

n265 (Mem):

successors

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successors

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successors

n140 0

n262 (Mem):

successors

n261 0

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successors

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n147 (Or):

predecessors

n148 0

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n268 (Or):

successors

n267 0

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n148 (Or):

successors

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n53 (And):

successors

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successors

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n60 (And):

successors

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predecessors

n173 0

n290 (Or):

successors

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n194 0

n109 0

n62 (Shift):

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n63 0

n65 (Mem):

successors

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n172 (Shift):

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predecessors

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n66 0

n173 (Mem):

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n294 (Mem):

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n67 (And):

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n68 0

n170 (And):

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n288 (And):

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n168 (Mem):

successors

n167 0

n289 (Or):

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predecessors

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successors

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predecessors

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n88 (Mul):

successors

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n193 (And):

successors

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predecessors

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successors

n186 0

n188 (Or):

successors

n186 0

predecessors

n90 0

n245 0

n185 (Shift):

successors

n183 0

n186 (Mem):

successors

n260 0

predecessors

n187 0

n188 0

n189 (Mem):

successors

n1 0

Nr of Nodes : 333

ASAP

Found schedule of length 19

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n330 : [0:1]

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n57 : [0:1]

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n255 : [0:1]

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n317 : [18:18]

Registered resources

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DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

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DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

DIV 1 4.3

DIV 0 4.3

SUB 0 1.4

OR 5 34.0

OR 9 32.0

OR 10 12.0

OR 14 8.0

OR 13 8.0

OR 12 6.0

OR 8 4.0

OR 15 2.0

OR 1 2.0

MUL 3 6.8999999999999995

MUL 2 6.8999999999999995

MUL 1 6.8999999999999995

MUL 0 6.8999999999999995

ADD 4 2.0

ADD 3 1.0

ADD 2 1.0

ADD 0 1.0

SH 2 60.0

SH 4 10.0

SH 5 6.0

SH 0 4.0

AND 3 60.0

AND 2 36.0

AND 4 34.0

AND 8 32.0

AND 9 12.0

AND 5 8.0

AND 6 6.0

AND 7 4.0

CMP 3 16.8

CMP 18 2.1

MEM 1 594.0

MEM 0 594.0

MEM 7 207.0

MEM 6 171.0

MEM 3 144.0

MEM 2 144.0

MEM 11 135.0

MEM 10 117.0

MEM 8 54.0

MEM 12 27.0

MEM 5 27.0

MEM 9 9.0

MEM 4 9.0

cost = 779.4

ALAP

Found schedule of length 19

n318 : [0:17]

n45 : [3:6]

n159 : [4:5]

n302 : [4:5]

n83 : [4:5]

n291 : [4:5]

n29 : [5:6]

n157 : [5:6]

n306 : [5:6]

n326 : [5:6]

n158 : [6:7]

n228 : [6:7]

n82 : [6:7]

n237 : [6:7]

n195 : [6:7]

n20 : [6:7]

n320 : [7:8]

n5 : [7:7]

n300 : [7:7]

n50 : [7:7]

n303 : [7:8]

n4 : [8:8]

n91 : [8:9]

n7 : [8:8]

n8 : [8:8]

n58 : [8:8]

n57 : [8:9]

n276 : [8:9]

n274 : [8:8]

n136 : [8:9]

n213 : [8:8]

n299 : [8:9]

n112 : [8:8]

n19 : [8:8]

n218 : [8:9]

n138 : [8:8]

n171 : [8:8]

n44 : [8:8]

n141 : [8:9]

n28 : [8:8]

n328 : [8:9]

n227 : [8:9]

n329 : [8:9]

n6 : [9:9]

n31 : [9:10]

n34 : [9:9]

n133 : [9:9]

n35 : [9:9]

n210 : [9:9]

n15 : [9:9]

n37 : [9:10]

n137 : [9:9]

n258 : [9:9]

n134 : [9:9]

n238 : [9:10]

n139 : [9:9]

n242 : [9:10]

n144 : [9:10]

n46 : [9:9]

n142 : [9:9]

n48 : [9:10]

n266 : [9:9]

n124 : [9:9]

n304 : [9:9]

n309 : [9:9]

n90 : [10:10]

n32 : [10:10]

n76 : [10:11]

n140 : [10:11]

n78 : [10:11]

n56 : [10:11]

n55 : [10:11]

n33 : [10:10]

n275 : [10:11]

n298 : [10:11]

n230 : [10:10]

n257 : [10:10]

n212 : [10:11]

n319 : [10:11]

n187 : [10:11]

n287 : [10:11]

n68 : [10:10]

n263 : [10:10]

n189 : [10:11]

n145 : [10:10]

n102 : [10:10]

n245 : [10:10]

n30 : [11:12]

n184 : [11:11]

n132 : [11:11]

n36 : [11:11]

n79 : [11:11]

n232 : [11:11]

n173 : [11:12]

n67 : [11:11]

n143 : [11:12]

n188 : [11:11]

n24 : [11:11]

n185 : [11:11]

n163 : [11:11]

n226 : [11:12]

n1 : [12:13]

n183 : [12:12]

n54 : [12:12]

n75 : [12:12]

n283 : [12:12]

n162 : [12:12]

n77 : [12:13]

n281 : [12:12]

n176 : [12:13]

n231 : [12:12]

n199 : [12:13]

n273 : [12:12]

n296 : [12:15]

n114 : [12:12]

n255 : [12:13]

n211 : [12:12]

n278 : [12:13]

n119 : [12:12]

n190 : [12:12]

n43 : [12:12]

n23 : [12:12]

n47 : [12:12]

n221 : [12:12]

n262 : [12:13]

n49 : [12:12]

n186 : [12:13]

n203 : [12:13]

n288 : [12:12]

n201 : [12:12]

n128 : [12:13]

n106 : [12:13]

n208 : [12:12]

n308 : [12:13]

n209 : [12:12]

n93 : [13:13]

n12 : [13:14]

n14 : [13:14]

n253 : [13:14]

n330 : [13:14]

n177 : [13:13]

n131 : [13:14]

n256 : [13:13]

n217 : [13:14]

n61 : [13:13]

n60 : [13:13]

n172 : [13:13]

n294 : [13:14]

n250 : [13:13]

n25 : [13:14]

n121 : [13:14]

n284 : [13:14]

n240 : [13:14]

n246 : [13:13]

n200 : [13:13]

n168 : [13:14]

n322 : [13:14]

n206 : [13:14]

n129 : [13:13]

n207 : [13:13]

n204 : [13:13]

n280 : [13:13]

n279 : [13:13]

n234 : [13:13]

n314 : [13:14]

n315 : [13:14]

n191 : [13:14]

n41 : [13:13]

n42 : [13:13]

n89 : [13:13]

n88 : [13:16]

n220 : [13:14]

n264 : [13:13]

n265 : [13:14]

n225 : [13:13]

n107 : [13:13]

n229 : [13:14]

n0 : [14:14]

n92 : [14:14]

n260 : [14:14]

n97 : [14:15]

n261 : [14:15]

n254 : [14:15]

n175 : [14:15]

n59 : [14:14]

n135 : [14:15]

n63 : [14:15]

n65 : [14:15]

n170 : [14:14]

n122 : [14:14]

n241 : [14:14]

n202 : [14:15]

n169 : [14:14]

n126 : [14:14]

n327 : [14:15]

n127 : [14:15]

n160 : [14:15]

n233 : [14:14]

n156 : [14:14]

n277 : [14:15]

n40 : [14:14]

n150 : [14:14]

n151 : [14:14]

n101 : [14:15]

n223 : [14:15]

n105 : [14:15]

n307 : [14:15]

n70 : [15:16]

n180 : [15:16]

n98 : [15:15]

n10 : [15:16]

n161 : [15:15]

n11 : [15:16]

n155 : [15:15]

n13 : [15:16]

n130 : [15:16]

n252 : [15:16]

n18 : [15:16]

n313 : [15:16]

n236 : [15:16]

n239 : [15:16]

n118 : [15:16]

n116 : [15:16]

n219 : [15:16]

n87 : [15:16]

n66 : [15:15]

n165 : [15:16]

n120 : [15:16]

n301 : [15:16]

n125 : [15:15]

n104 : [15:16]

n167 : [15:16]

n321 : [15:16]

n149 : [15:15]

n205 : [15:16]

n3 : [16:16]

n96 : [16:17]

n154 : [16:17]

n297 : [16:16]

n111 : [16:16]

n295 : [16:16]

n17 : [16:16]

n316 : [16:16]

n259 : [16:16]

n290 : [16:16]

n85 : [16:16]

n62 : [16:16]

n271 : [16:16]

n64 : [16:17]

n272 : [16:16]

n22 : [16:16]

n100 : [16:16]

n103 : [16:16]

n224 : [16:16]

n269 : [16:17]

n146 : [16:16]

n109 : [16:16]

n2 : [17:17]

n52 : [17:17]

n9 : [17:17]

n95 : [17:17]

n53 : [17:17]

n181 : [17:17]

n99 : [17:17]

n16 : [17:17]

n178 : [17:17]

n179 : [17:17]

n215 : [17:17]

n216 : [17:17]

n21 : [17:17]

n293 : [17:17]

n69 : [17:17]

n286 : [17:17]

n166 : [17:17]

n27 : [17:17]

n164 : [17:17]

n324 : [17:17]

n123 : [17:17]

n244 : [17:17]

n248 : [17:17]

n72 : [17:17]

n74 : [17:17]

n73 : [17:17]

n282 : [17:17]

n198 : [17:17]

n110 : [17:17]

n153 : [17:17]

n197 : [17:17]

n235 : [17:17]

n39 : [17:17]

n115 : [17:17]

n311 : [17:17]

n117 : [17:17]

n81 : [17:17]

n84 : [17:17]

n194 : [17:17]

n86 : [17:18]

n270 : [17:18]

n193 : [17:17]

n268 : [17:17]

n148 : [17:17]

n222 : [17:17]

n108 : [17:17]

n94 : [18:18]

n71 : [18:18]

n51 : [18:18]

n182 : [18:18]

n331 : [18:18]

n251 : [18:18]

n38 : [18:18]

n152 : [18:18]

n174 : [18:18]

n196 : [18:18]

n312 : [18:18]

n214 : [18:18]

n310 : [18:18]

n332 : [18:18]

n113 : [18:18]

n317 : [18:18]

n80 : [18:18]

n192 : [18:18]

n292 : [18:18]

n243 : [18:18]

n26 : [18:18]

n285 : [18:18]

n323 : [18:18]

n147 : [18:18]

n247 : [18:18]

n267 : [18:18]

n289 : [18:18]

n305 : [18:18]

n325 : [18:18]

n249 : [18:18]

Registered resources

DIV 17 4.3

DIV 16 4.3

DIV 15 4.3

DIV 14 4.3

DIV 13 4.3

DIV 12 4.3

DIV 11 4.3

DIV 10 4.3

DIV 9 4.3

DIV 8 4.3

DIV 7 4.3

DIV 6 4.3

DIV 5 4.3

DIV 4 4.3

DIV 3 4.3

DIV 2 4.3

DIV 1 4.3

DIV 0 4.3

OR 18 40.0

OR 13 16.0

OR 16 10.0

OR 17 8.0

OR 15 8.0

OR 14 8.0

OR 9 8.0

OR 11 4.0

OR 10 4.0

OR 12 2.0

SUB 14 1.4

ADD 18 1.0

ADD 16 1.0

ADD 14 1.0

ADD 13 1.0

ADD 7 1.0

MUL 15 4.6

MUL 14 4.6

MUL 13 4.6

MUL 16 2.3

MUL 12 2.3

MUL 6 2.3

MUL 5 2.3

MUL 4 2.3

MUL 3 2.3

AND 17 80.0

AND 12 32.0

AND 14 16.0

AND 13 16.0

AND 9 16.0

AND 8 16.0

AND 10 12.0

AND 11 4.0

SH 16 24.0

SH 11 12.0

SH 13 8.0

SH 12 8.0

SH 9 8.0

SH 8 8.0

SH 15 4.0

SH 10 4.0

SH 7 4.0

CMP 18 18.900000000000002

MEM 15 342.0

MEM 14 324.0

MEM 13 288.0

MEM 16 234.0

MEM 10 162.0

MEM 12 144.0

MEM 11 144.0

MEM 9 144.0

MEM 8 108.0

MEM 6 90.0

MEM 7 72.0

MEM 5 72.0

MEM 17 54.0

MEM 4 36.0

MEM 18 18.0

cost = 516.2

# TwofishEngine-setKey-262-1953

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=59163:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/TwofishEngine-setKey-262-1953.dot

Scheduling scheduler-framework-master/graphs/TwofishEngine-setKey-262-1953.dot

n90 (Mem):

successors

n16 0

predecessors

n91 0

n92 (Mem):

successors

n268 0

predecessors

n93 0

n91 (Mem):

successors

n90 0

n94 (Or):

predecessors

n96 0

n95 0

n93 (Mem):

successors

n92 0

n96 (And):

successors

n94 0

n95 (And):

successors

n94 0

predecessors

n128 0

n98 (Mem):

successors

n51 0

n97 (Cmp):

predecessors

n4 0

n99 (And):

successors

n64 0

predecessors

n100 0

n312 (Mem):

successors

n287 0

predecessors

n313 0

n313 (Mem):

successors

n312 0

n310 (Cmp):

predecessors

n311 0

n311 (And):

successors

n310 0

predecessors

n21 0

n316 (Mem):

successors

n315 0

n317 (Shift):

successors

n180 0

n314 (Shift):

successors

n251 0

n315 (Mem):

successors

n60 0

predecessors

n264 0

n316 0

n318 (Mem):

successors

n196 0

n319 (And):

successors

n301 0

n301 (Or):

successors

n218 0

predecessors

n26 0

n319 0

n302 (Mem):

successors

n294 0

n300 (Mem):

successors

n218 0

n305 (Or):

predecessors

n224 0

n281 0

n306 (Or):

predecessors

n206 0

n307 0

n303 (Mem):

successors

n113 0

predecessors

n4 0

n304 0

n304 (Mem):

successors

n303 0

n309 (Mem):

successors

n102 0

n307 (And):

successors

n306 0

n308 (Shift):

successors

n267 0

n330 (Cmp):

n210 (And):

successors

n64 0

predecessors

n211 0

n213 (And):

successors

n194 0

predecessors

n292 0

n214 (Shift):

successors

n79 0

n211 (Mem):

successors

n210 0

predecessors

n321 0

n212 (Mem):

predecessors

n69 0

n165 0

n104 0

n217 (And):

successors

n237 0

predecessors

n218 0

n218 (Mem):

successors

n217 0

predecessors

n301 0

n300 0

n215 (Or):

successors

n274 0

predecessors

n125 0

n216 0

n216 (And):

successors

n215 0

predecessors

n232 0

n219 (Mem):

successors

n243 0

predecessors

n220 0

n221 0

n320 (Shift):

successors

n223 0

n202 (Mem):

successors

n275 0

predecessors

n203 0

n323 (Mem):

predecessors

n110 0

n47 0

n324 0

n203 (Mem):

successors

n202 0

n324 (Mul):

successors

n323 0

n200 (Mem):

successors

n285 0

predecessors

n29 0

n201 0

n321 (Mem):

successors

n211 0

n201 (Mem):

successors

n200 0

n322 (Cmp):

predecessors

n139 0

n206 (And):

successors

n306 0

predecessors

n45 0

n327 (Mem):

successors

n116 0

n207 (Or):

predecessors

n101 0

n208 0

n328 (Shift):

successors

n228 0

n204 (And):

successors

n291 0

predecessors

n205 0

n325 (Shift):

successors

n145 0

n205 (Shift):

successors

n204 0

n326 (Mul):

successors

n36 0

n208 (And):

successors

n207 0

n329 (Mem):

successors

n171 0

n209 (Shift):

successors

n7 0

n110 (Mem):

successors

n323 0

n189 0

n191 0

n109 0

n231 (Shift):

successors

n230 0

n111 (Add):

successors

n109 0

predecessors

n283 0

n232 (Mem):

successors

n216 0

predecessors

n233 0

n230 (And):

successors

n276 0

predecessors

n231 0

n114 (And):

successors

n112 0

predecessors

n157 0

n235 (Mem):

successors

n152 0

n115 (And):

successors

n153 0

predecessors

n75 0

n236 (Mem):

successors

n190 0

n112 (Or):

predecessors

n114 0

n113 0

n233 (Mem):

successors

n232 0

n113 (And):

successors

n112 0

predecessors

n303 0

n234 (Mem):

successors

n146 0

predecessors

n4 0

n249 0

n118 (Mem):

successors

n117 0

n239 (Mul):

successors

n247 0

predecessors

n4 0

n119 (Or):

successors

n117 0

predecessors

n275 0

n298 0

n116 (Mem):

successors

n30 0

predecessors

n4 0

n327 0

n237 (Or):

successors

n246 0

predecessors

n217 0

n238 0

n117 (Mem):

successors

n132 0

predecessors

n118 0

n119 0

n238 (And):

successors

n237 0

n220 (Mem):

successors

n219 0

n100 (Shift):

successors

n99 0

n221 (Or):

successors

n219 0

predecessors

n132 0

n251 0

n103 (Shift):

successors

n17 0

n224 (And):

successors

n305 0

predecessors

n225 0

n104 (Mem):

successors

n212 0

predecessors

n105 0

n106 0

n225 (Mem):

successors

n224 0

predecessors

n263 0

n101 (And):

successors

n207 0

predecessors

n102 0

n222 (And):

successors

n73 0

predecessors

n172 0

n102 (Mem):

successors

n101 0

predecessors

n309 0

n223 (And):

successors

n73 0

predecessors

n320 0

n107 (And):

successors

n49 0

predecessors

n57 0

n228 (And):

successors

n226 0

predecessors

n328 0

n108 (And):

successors

n49 0

n229 (Mem):

successors

n44 0

n105 (Mem):

successors

n104 0

n226 (Or):

predecessors

n228 0

n227 0

n106 (Or):

successors

n104 0

predecessors

n147 0

n146 0

n227 (And):

successors

n226 0

predecessors

n2 0

n109 (Mem):

predecessors

n110 0

n111 0

n62 0

n10 (Or):

successors

n8 0

predecessors

n0 0

n81 0

n260 (And):

successors

n259 0

predecessors

n271 0

n140 (Cmp):

predecessors

n141 0

n261 (Shift):

successors

n254 0

n12 (Mem):

successors

n11 0

n11 (Mem):

successors

n240 0

predecessors

n13 0

n12 0

n14 (Mul):

successors

n245 0

predecessors

n4 0

n132 (And):

successors

n221 0

predecessors

n117 0

n253 (And):

successors

n252 0

predecessors

n294 0

n13 (Or):

successors

n11 0

predecessors

n163 0

n182 0

n133 (Mul):

successors

n70 0

predecessors

n4 0

n254 (And):

successors

n252 0

predecessors

n261 0

n16 (And):

successors

n15 0

predecessors

n90 0

n130 (Mem):

successors

n129 0

n251 (And):

successors

n221 0

predecessors

n314 0

n15 (Or):

successors

n192 0

predecessors

n16 0

n17 0

n131 (Add):

successors

n241 0

predecessors

n80 0

n252 (Or):

successors

n89 0

predecessors

n253 0

n254 0

n18 (Mem):

successors

n26 0

predecessors

n19 0

n136 (Mem):

successors

n39 0

predecessors

n137 0

n257 (Mem):

successors

n270 0

predecessors

n258 0

n259 0

n17 (And):

successors

n15 0

predecessors

n103 0

n137 (Mem):

successors

n136 0

n258 (Mem):

successors

n257 0

n134 (Mem):

successors

n122 0

n255 (And):

successors

n278 0

predecessors

n256 0

n19 (Mem):

successors

n18 0

n135 (Shift):

successors

n85 0

n256 (Shift):

successors

n255 0

n138 (Mem):

successors

n82 0

n259 (Or):

successors

n257 0

predecessors

n260 0

n88 0

n139 (And):

successors

n322 0

predecessors

n21 0

n21 (Mem):

successors

n141 0

n178 0

n156 0

n311 0

n139 0

n293 0

n87 0

n20 0

n20 (And):

successors

n67 0

predecessors

n21 0

n250 (And):

successors

n276 0

predecessors

n27 0

n23 (Shift):

successors

n22 0

n22 (And):

successors

n24 0

predecessors

n23 0

n25 (And):

successors

n24 0

predecessors

n274 0

n121 (Mul):

successors

n120 0

n242 (Mem):

successors

n181 0

n24 (Or):

successors

n196 0

predecessors

n25 0

n22 0

n122 (Mem):

successors

n120 0

predecessors

n59 0

n134 0

n243 (Mem):

predecessors

n244 0

n42 0

n219 0

n27 (Mem):

successors

n250 0

predecessors

n28 0

n240 (Mem):

predecessors

n35 0

n158 0

n11 0

n26 (And):

successors

n301 0

predecessors

n18 0

n120 (Mem):

predecessors

n121 0

n35 0

n122 0

n241 (Mem):

predecessors

n69 0

n131 0

n71 0

n29 (Or):

successors

n200 0

predecessors

n30 0

n31 0

n125 (And):

successors

n215 0

predecessors

n126 0

n246 (Mem):

successors

n245 0

predecessors

n296 0

n237 0

n28 (Mem):

successors

n27 0

n126 (Shift):

successors

n125 0

n247 (Add):

successors

n285 0

predecessors

n239 0

n123 (Mem):

successors

n84 0

predecessors

n38 0

n124 0

n244 (Add):

successors

n243 0

predecessors

n142 0

n124 (Mem):

successors

n123 0

n245 (Mem):

predecessors

n14 0

n246 0

n42 0

n129 (Mem):

successors

n188 0

predecessors

n130 0

n127 (Shift):

successors

n31 0

n248 (Mem):

successors

n162 0

n128 (Mem):

successors

n95 0

predecessors

n262 0

n4 0

n249 (Mem):

successors

n234 0

n30 (And):

successors

n29 0

predecessors

n116 0

n32 (Add):

successors

n191 0

predecessors

n33 0

n161 (And):

successors

n280 0

predecessors

n162 0

n282 (Shift):

successors

n281 0

n31 (And):

successors

n29 0

predecessors

n127 0

n162 (Mem):

successors

n161 0

predecessors

n4 0

n248 0

n283 (Mul):

successors

n111 0

n34 (Mem):

predecessors

n36 0

n35 0

n37 0

n280 (Or):

predecessors

n176 0

n161 0

n33 (Mul):

successors

n32 0

n160 (And):

successors

n179 0

predecessors

n149 0

n281 (And):

successors

n305 0

predecessors

n282 0

n36 (Add):

successors

n34 0

predecessors

n326 0

n154 (And):

successors

n153 0

predecessors

n277 0

n275 (And):

successors

n119 0

predecessors

n202 0

n35 (Mem):

successors

n240 0

n120 0

n195 0

n34 0

n155 (Cmp):

predecessors

n156 0

n276 (Or):

predecessors

n230 0

n250 0

n38 (Or):

successors

n123 0

predecessors

n39 0

n40 0

n152 (Mem):

successors

n151 0

predecessors

n235 0

n273 (Add):

predecessors

n4 0

n37 (Mem):

successors

n34 0

predecessors

n174 0

n175 0

n153 (Or):

successors

n190 0

predecessors

n154 0

n115 0

n274 (Mem):

successors

n25 0

predecessors

n284 0

n215 0

n158 (Add):

successors

n240 0

predecessors

n159 0

n279 (And):

successors

n278 0

predecessors

n289 0

n39 (And):

successors

n38 0

predecessors

n136 0

n159 (Mul):

successors

n158 0

n156 (And):

successors

n155 0

predecessors

n21 0

n277 (Shift):

successors

n154 0

n157 (Shift):

successors

n114 0

n278 (Or):

predecessors

n279 0

n255 0

n41 (Mem):

predecessors

n43 0

n42 0

n44 0

n40 (And):

successors

n38 0

predecessors

n74 0

n43 (Add):

successors

n41 0

predecessors

n54 0

n150 (Mem):

successors

n149 0

n271 (Shift):

successors

n260 0

n42 (Mem):

successors

n243 0

n245 0

n41 0

n270 0

n151 (And):

successors

n266 0

predecessors

n152 0

n272 (Or):

predecessors

n148 0

n184 0

n45 (Mem):

successors

n206 0

predecessors

n46 0

n44 (Mem):

successors

n41 0

predecessors

n83 0

n229 0

n270 (Mem):

predecessors

n166 0

n257 0

n42 0

n47 (Mem):

successors

n323 0

predecessors

n49 0

n48 0

n143 (Or):

predecessors

n144 0

n145 0

n264 (Or):

successors

n315 0

predecessors

n188 0

n265 0

n46 (Mem):

successors

n45 0

n144 (And):

successors

n143 0

predecessors

n181 0

n265 (And):

successors

n264 0

n49 (Or):

successors

n47 0

predecessors

n107 0

n108 0

n141 (And):

successors

n140 0

predecessors

n21 0

n262 (Mem):

successors

n128 0

n48 (Mem):

successors

n47 0

n142 (Mul):

successors

n244 0

predecessors

n4 0

n263 (Mem):

successors

n225 0

n147 (And):

successors

n106 0

n268 (And):

successors

n291 0

predecessors

n92 0

n148 (And):

successors

n272 0

predecessors

n65 0

n269 (Mem):

successors

n89 0

n145 (And):

successors

n143 0

predecessors

n325 0

n266 (Or):

predecessors

n267 0

n151 0

n146 (And):

successors

n106 0

predecessors

n234 0

n267 (And):

successors

n266 0

predecessors

n308 0

n149 (Mem):

successors

n160 0

predecessors

n150 0

n0 (And):

successors

n10 0

predecessors

n1 0

n1 (Shift):

successors

n0 0

n2 (Mem):

successors

n227 0

predecessors

n3 0

n4 0

n3 (Mem):

successors

n2 0

n4 (Add):

successors

n2 0

n80 0

n82 0

n54 0

n172 0

n97 0

n162 0

n14 0

n165 0

n133 0

n273 0

n142 0

n167 0

n234 0

n239 0

n303 0

n116 0

n128 0

n5 (Or):

predecessors

n6 0

n7 0

n6 (And):

successors

n5 0

predecessors

n197 0

n50 (And):

successors

n194 0

predecessors

n51 0

n7 (And):

successors

n5 0

predecessors

n209 0

n180 (And):

successors

n179 0

predecessors

n317 0

n8 (Mem):

successors

n68 0

predecessors

n9 0

n10 0

n52 (And):

successors

n175 0

predecessors

n53 0

n9 (Mem):

successors

n8 0

n51 (Mem):

successors

n50 0

predecessors

n98 0

n54 (Mul):

successors

n43 0

predecessors

n4 0

n183 (Shift):

successors

n182 0

n53 (Shift):

successors

n52 0

n184 (And):

successors

n272 0

predecessors

n185 0

n56 (Mul):

successors

n55 0

n181 (Mem):

successors

n144 0

predecessors

n242 0

n55 (Add):

successors

n189 0

predecessors

n56 0

n182 (And):

successors

n13 0

predecessors

n183 0

n58 (Mem):

successors

n57 0

n176 (And):

successors

n280 0

predecessors

n177 0

n297 (Cmp):

predecessors

n293 0

n57 (Mem):

successors

n107 0

predecessors

n58 0

n177 (Shift):

successors

n176 0

n298 (And):

successors

n119 0

predecessors

n299 0

n174 (Mem):

successors

n37 0

n295 (Cmp):

predecessors

n178 0

n59 (Or):

successors

n122 0

predecessors

n61 0

n60 0

n175 (Or):

successors

n37 0

predecessors

n52 0

n170 0

n296 (Mem):

successors

n246 0

n178 (And):

successors

n295 0

predecessors

n21 0

n299 (Shift):

successors

n298 0

n179 (Or):

successors

n171 0

predecessors

n180 0

n160 0

n61 (And):

successors

n59 0

n60 (And):

successors

n59 0

predecessors

n315 0

n290 (Mem):

successors

n289 0

n63 (Mem):

successors

n62 0

n62 (Mem):

successors

n109 0

predecessors

n63 0

n64 0

n65 (Mem):

successors

n148 0

predecessors

n66 0

n172 (Mem):

successors

n222 0

predecessors

n4 0

n173 0

n293 (And):

successors

n297 0

predecessors

n21 0

n64 (Or):

successors

n62 0

predecessors

n210 0

n99 0

n173 (Mem):

successors

n172 0

n294 (Mem):

successors

n253 0

predecessors

n302 0

n67 (Cmp):

predecessors

n20 0

n170 (And):

successors

n175 0

predecessors

n171 0

n291 (Or):

predecessors

n268 0

n204 0

n66 (Mem):

successors

n65 0

n171 (Mem):

successors

n170 0

predecessors

n179 0

n329 0

n292 (Shift):

successors

n213 0

n69 (Mem):

successors

n68 0

n241 0

n285 0

n212 0

n165 (Mul):

successors

n212 0

predecessors

n4 0

n286 (Or):

predecessors

n287 0

n288 0

n68 (Mem):

predecessors

n69 0

n70 0

n8 0

n166 (Add):

successors

n270 0

predecessors

n167 0

n287 (And):

successors

n286 0

predecessors

n312 0

n163 (And):

successors

n13 0

predecessors

n164 0

n284 (Mem):

successors

n274 0

n164 (Mem):

successors

n163 0

predecessors

n194 0

n193 0

n285 (Mem):

predecessors

n69 0

n247 0

n200 0

n169 (Mul):

successors

n168 0

n167 (Mul):

successors

n166 0

predecessors

n4 0

n288 (And):

successors

n286 0

n168 (Add):

successors

n195 0

predecessors

n169 0

n289 (Mem):

successors

n279 0

predecessors

n290 0

n70 (Add):

successors

n68 0

predecessors

n133 0

n72 (Mem):

successors

n71 0

n71 (Mem):

successors

n241 0

predecessors

n72 0

n73 0

n74 (Shift):

successors

n40 0

n73 (Or):

successors

n71 0

predecessors

n222 0

n223 0

n76 (Mem):

successors

n75 0

n75 (Mem):

successors

n115 0

predecessors

n76 0

n78 (And):

successors

n77 0

predecessors

n186 0

n77 (Or):

predecessors

n79 0

n78 0

n198 (Mem):

successors

n197 0

n79 (And):

successors

n77 0

predecessors

n214 0

n199 (Mem):

successors

n192 0

n196 (Mem):

successors

n195 0

predecessors

n24 0

n318 0

n197 (Mem):

successors

n6 0

predecessors

n198 0

n81 (And):

successors

n10 0

predecessors

n82 0

n80 (Mul):

successors

n131 0

predecessors

n4 0

n83 (Or):

successors

n44 0

predecessors

n85 0

n84 0

n190 (Mem):

successors

n189 0

predecessors

n153 0

n236 0

n82 (Mem):

successors

n81 0

predecessors

n4 0

n138 0

n191 (Mem):

predecessors

n110 0

n32 0

n192 0

n85 (And):

successors

n83 0

predecessors

n135 0

n84 (And):

successors

n83 0

predecessors

n123 0

n87 (And):

successors

n86 0

predecessors

n21 0

n194 (Or):

successors

n164 0

predecessors

n213 0

n50 0

n86 (Cmp):

predecessors

n87 0

n195 (Mem):

predecessors

n35 0

n196 0

n168 0

n89 (Mem):

successors

n88 0

predecessors

n252 0

n269 0

n192 (Mem):

successors

n191 0

predecessors

n199 0

n15 0

n88 (And):

successors

n259 0

predecessors

n89 0

n193 (Mem):

successors

n164 0

n187 (Mem):

successors

n186 0

n188 (And):

successors

n264 0

predecessors

n129 0

n185 (Shift):

successors

n184 0

n186 (Mem):

successors

n78 0

predecessors

n187 0

n189 (Mem):

predecessors

n110 0

n190 0

n55 0

Nr of Nodes : 331

ASAP

Found schedule of length 14

n91 : [0:1]

n93 : [0:1]

n96 : [0:0]

n98 : [0:1]

n261 : [0:0]

n12 : [0:1]

n130 : [0:1]

n137 : [0:1]

n258 : [0:1]

n134 : [0:1]

n19 : [0:1]

n135 : [0:0]

n256 : [0:0]

n138 : [0:1]

n21 : [0:1]

n23 : [0:0]

n121 : [0:3]

n242 : [0:1]

n28 : [0:1]

n126 : [0:0]

n124 : [0:1]

n127 : [0:0]

n248 : [0:1]

n249 : [0:1]

n282 : [0:0]

n283 : [0:3]

n33 : [0:3]

n35 : [0:1]

n313 : [0:1]

n159 : [0:3]

n277 : [0:0]

n157 : [0:0]

n316 : [0:1]

n317 : [0:0]

n314 : [0:0]

n318 : [0:1]

n319 : [0:0]

n150 : [0:1]

n271 : [0:0]

n42 : [0:1]

n46 : [0:1]

n265 : [0:0]

n262 : [0:1]

n48 : [0:1]

n263 : [0:1]

n147 : [0:0]

n302 : [0:1]

n269 : [0:1]

n300 : [0:1]

n304 : [0:1]

n309 : [0:1]

n307 : [0:0]

n308 : [0:0]

n1 : [0:0]

n3 : [0:1]

n4 : [0:0]

n9 : [0:1]

n183 : [0:0]

n53 : [0:0]

n56 : [0:3]

n330 : [0:0]

n58 : [0:1]

n177 : [0:0]

n174 : [0:1]

n296 : [0:1]

n214 : [0:0]

n299 : [0:0]

n61 : [0:0]

n290 : [0:1]

n63 : [0:1]

n173 : [0:1]

n66 : [0:1]

n292 : [0:0]

n69 : [0:1]

n320 : [0:0]

n284 : [0:1]

n169 : [0:3]

n203 : [0:1]

n324 : [0:3]

n321 : [0:1]

n288 : [0:0]

n201 : [0:1]

n327 : [0:1]

n328 : [0:0]

n325 : [0:0]

n205 : [0:0]

n326 : [0:3]

n208 : [0:0]

n329 : [0:1]

n209 : [0:0]

n72 : [0:1]

n74 : [0:0]

n76 : [0:1]

n110 : [0:1]

n231 : [0:0]

n198 : [0:1]

n199 : [0:1]

n235 : [0:1]

n236 : [0:1]

n233 : [0:1]

n118 : [0:1]

n238 : [0:0]

n193 : [0:1]

n220 : [0:1]

n187 : [0:1]

n100 : [0:0]

n185 : [0:0]

n103 : [0:0]

n108 : [0:0]

n229 : [0:1]

n105 : [0:1]

n260 : [1:1]

n97 : [1:1]

n99 : [1:1]

n14 : [1:4]

n254 : [1:1]

n133 : [1:4]

n251 : [1:1]

n17 : [1:1]

n255 : [1:1]

n22 : [1:1]

n125 : [1:1]

n31 : [1:1]

n281 : [1:1]

n154 : [1:1]

n273 : [1:1]

n40 : [1:1]

n142 : [1:4]

n145 : [1:1]

n267 : [1:1]

n0 : [1:1]

n180 : [1:1]

n7 : [1:1]

n52 : [1:1]

n54 : [1:4]

n184 : [1:1]

n182 : [1:1]

n176 : [1:1]

n298 : [1:1]

n213 : [1:1]

n165 : [1:4]

n167 : [1:4]

n204 : [1:1]

n79 : [1:1]

n230 : [1:1]

n114 : [1:1]

n239 : [1:4]

n80 : [1:4]

n85 : [1:1]

n223 : [1:1]

n228 : [1:1]

n90 : [2:3]

n2 : [2:3]

n92 : [2:3]

n51 : [2:3]

n181 : [2:3]

n57 : [2:3]

n136 : [2:3]

n18 : [2:3]

n178 : [2:2]

n211 : [2:3]

n139 : [2:2]

n293 : [2:2]

n172 : [2:3]

n65 : [2:3]

n20 : [2:2]

n294 : [2:3]

n27 : [2:3]

n202 : [2:3]

n289 : [2:3]

n129 : [2:3]

n128 : [2:3]

n162 : [2:3]

n75 : [2:3]

n232 : [2:3]

n152 : [2:3]

n197 : [2:3]

n312 : [2:3]

n156 : [2:2]

n311 : [2:2]

n234 : [2:3]

n116 : [2:3]

n82 : [2:3]

n87 : [2:2]

n45 : [2:3]

n141 : [2:2]

n186 : [2:3]

n225 : [2:3]

n102 : [2:3]

n149 : [2:3]

n303 : [2:3]

n140 : [3:3]

n297 : [3:3]

n295 : [3:3]

n67 : [3:3]

n322 : [3:3]

n155 : [3:3]

n310 : [3:3]

n86 : [3:3]

n50 : [4:4]

n6 : [4:4]

n30 : [4:4]

n95 : [4:4]

n32 : [4:4]

n161 : [4:4]

n78 : [4:4]

n55 : [4:4]

n160 : [4:4]

n36 : [4:4]

n253 : [4:4]

n275 : [4:4]

n111 : [4:4]

n210 : [4:4]

n16 : [4:4]

n158 : [4:4]

n279 : [4:4]

n39 : [4:4]

n115 : [4:4]

n113 : [4:4]

n216 : [4:4]

n81 : [4:4]

n250 : [4:4]

n151 : [4:4]

n144 : [4:4]

n188 : [4:4]

n287 : [4:4]

n26 : [4:4]

n268 : [4:4]

n224 : [4:4]

n148 : [4:4]

n222 : [4:4]

n101 : [4:4]

n168 : [4:4]

n146 : [4:4]

n107 : [4:4]

n206 : [4:4]

n227 : [4:4]

n70 : [5:5]

n5 : [5:5]

n94 : [5:5]

n73 : [5:5]

n10 : [5:5]

n280 : [5:5]

n77 : [5:5]

n276 : [5:5]

n38 : [5:5]

n131 : [5:5]

n252 : [5:5]

n15 : [5:5]

n153 : [5:5]

n112 : [5:5]

n179 : [5:5]

n278 : [5:5]

n119 : [5:5]

n215 : [5:5]

n43 : [5:5]

n194 : [5:5]

n64 : [5:5]

n272 : [5:5]

n291 : [5:5]

n143 : [5:5]

n264 : [5:5]

n286 : [5:5]

n166 : [5:5]

n49 : [5:5]

n29 : [5:5]

n301 : [5:5]

n247 : [5:5]

n244 : [5:5]

n266 : [5:5]

n305 : [5:5]

n207 : [5:5]

n306 : [5:5]

n226 : [5:5]

n106 : [5:5]

n190 : [6:7]

n71 : [6:7]

n8 : [6:7]

n62 : [6:7]

n89 : [6:7]

n192 : [6:7]

n171 : [6:7]

n47 : [6:7]

n274 : [6:7]

n164 : [6:7]

n104 : [6:7]

n123 : [6:7]

n200 : [6:7]

n218 : [6:7]

n117 : [6:7]

n315 : [6:7]

n191 : [8:9]

n60 : [8:8]

n84 : [8:8]

n170 : [8:8]

n88 : [8:8]

n25 : [8:8]

n132 : [8:8]

n68 : [8:9]

n163 : [8:8]

n241 : [8:9]

n285 : [8:9]

n323 : [8:9]

n189 : [8:9]

n212 : [8:9]

n217 : [8:8]

n109 : [8:9]

n83 : [9:9]

n24 : [9:9]

n221 : [9:9]

n13 : [9:9]

n59 : [9:9]

n175 : [9:9]

n259 : [9:9]

n237 : [9:9]

n122 : [10:11]

n196 : [10:11]

n37 : [10:11]

n257 : [10:11]

n246 : [10:11]

n219 : [10:11]

n11 : [10:11]

n44 : [10:11]

n243 : [12:13]

n240 : [12:13]

n120 : [12:13]

n245 : [12:13]

n41 : [12:13]

n195 : [12:13]

n34 : [12:13]

n270 : [12:13]

Registered resources

CMP 3 16.8

CMP 1 2.1

CMP 0 2.1

ADD 5 6.0

ADD 4 6.0

ADD 1 1.0

ADD 0 1.0

SH 0 60.0

MUL 3 36.8

MUL 2 36.8

MUL 1 36.8

MUL 4 18.4

MUL 0 18.4

AND 4 64.0

AND 1 60.0

AND 0 20.0

AND 8 16.0

AND 2 16.0

OR 5 64.0

OR 9 16.0

MEM 1 549.0

MEM 0 549.0

MEM 3 288.0

MEM 2 288.0

MEM 7 144.0

MEM 6 144.0

MEM 13 72.0

MEM 12 72.0

MEM 11 72.0

MEM 10 72.0

MEM 9 72.0

MEM 8 72.0

cost = 796.6

ALAP

Found schedule of length 14

n130 : [0:1]

n302 : [0:1]

n203 : [0:1]

n137 : [0:1]

n233 : [0:1]

n19 : [0:1]

n98 : [0:1]

n150 : [0:1]

n232 : [2:3]

n202 : [2:3]

n18 : [2:3]

n136 : [2:3]

n129 : [2:3]

n149 : [2:3]

n51 : [2:3]

n294 : [2:3]

n74 : [3:3]

n261 : [3:3]

n292 : [3:3]

n126 : [3:3]

n299 : [3:3]

n317 : [3:3]

n91 : [4:5]

n50 : [4:4]

n180 : [4:4]

n76 : [4:5]

n160 : [4:4]

n58 : [4:5]

n253 : [4:4]

n275 : [4:4]

n254 : [4:4]

n298 : [4:4]

n213 : [4:4]

n39 : [4:4]

n118 : [4:5]

n316 : [4:5]

n138 : [4:5]

n216 : [4:4]

n319 : [4:4]

n40 : [4:4]

n173 : [4:5]

n193 : [4:5]

n188 : [4:4]

n265 : [4:4]

n284 : [4:5]

n26 : [4:4]

n125 : [4:4]

n269 : [4:5]

n321 : [4:5]

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n249 : [4:5]

n329 : [4:5]

n4 : [5:5]

n38 : [5:5]

n252 : [5:5]

n179 : [5:5]

n119 : [5:5]

n215 : [5:5]

n194 : [5:5]

n264 : [5:5]

n301 : [5:5]

n90 : [6:7]

n82 : [6:7]

n172 : [6:7]

n75 : [6:7]

n89 : [6:7]

n171 : [6:7]

n57 : [6:7]

n274 : [6:7]

n164 : [6:7]

n211 : [6:7]

n123 : [6:7]

n234 : [6:7]

n218 : [6:7]

n116 : [6:7]

n117 : [6:7]

n315 : [6:7]

n1 : [7:7]

n54 : [7:10]

n183 : [7:7]

n283 : [7:10]

n53 : [7:7]

n56 : [7:10]

n33 : [7:10]

n133 : [7:10]

n159 : [7:10]

n277 : [7:7]

n135 : [7:7]

n239 : [7:10]

n314 : [7:7]

n80 : [7:10]

n271 : [7:7]

n23 : [7:7]

n100 : [7:7]

n320 : [7:7]

n142 : [7:10]

n169 : [7:10]

n103 : [7:7]

n167 : [7:10]

n127 : [7:7]

n326 : [7:10]

n0 : [8:8]

n3 : [8:9]

n93 : [8:9]

n52 : [8:8]

n9 : [8:9]

n260 : [8:8]

n12 : [8:9]

n182 : [8:8]

n99 : [8:8]

n14 : [8:11]

n132 : [8:8]

n210 : [8:8]

n174 : [8:9]

n16 : [8:8]

n251 : [8:8]

n296 : [8:9]

n258 : [8:9]

n17 : [8:8]

n134 : [8:9]

n217 : [8:8]

n61 : [8:8]

n60 : [8:8]

n290 : [8:9]

n63 : [8:9]

n170 : [8:8]

n66 : [8:9]

n22 : [8:8]

n165 : [8:11]

n121 : [8:11]

n242 : [8:9]

n25 : [8:8]

n163 : [8:8]

n324 : [8:11]

n28 : [8:9]

n201 : [8:9]

n248 : [8:9]

n72 : [8:9]

n30 : [8:8]

n31 : [8:8]

n198 : [8:9]

n154 : [8:8]

n199 : [8:9]

n235 : [8:9]

n236 : [8:9]

n115 : [8:8]

n313 : [8:9]

n238 : [8:8]

n318 : [8:9]

n81 : [8:8]

n85 : [8:8]

n84 : [8:8]

n88 : [8:8]

n220 : [8:9]

n187 : [8:9]

n46 : [8:9]

n262 : [8:9]

n48 : [8:9]

n263 : [8:9]

n147 : [8:8]

n222 : [8:8]

n223 : [8:8]

n146 : [8:8]

n107 : [8:8]

n229 : [8:9]

n108 : [8:8]

n105 : [8:9]

n304 : [8:9]

n309 : [8:9]

n10 : [9:9]

n13 : [9:9]

n59 : [9:9]

n175 : [9:9]

n15 : [9:9]

n259 : [9:9]

n64 : [9:9]

n24 : [9:9]

n29 : [9:9]

n73 : [9:9]

n153 : [9:9]

n237 : [9:9]

n83 : [9:9]

n221 : [9:9]

n49 : [9:9]

n106 : [9:9]

n2 : [10:11]

n92 : [10:11]

n8 : [10:11]

n181 : [10:11]

n11 : [10:11]

n257 : [10:11]

n219 : [10:11]

n62 : [10:11]

n21 : [10:11]

n65 : [10:11]

n69 : [10:11]

n122 : [10:11]

n27 : [10:11]

n246 : [10:11]

n200 : [10:11]

n289 : [10:11]

n128 : [10:11]

n71 : [10:11]

n162 : [10:11]

n110 : [10:11]

n35 : [10:11]

n196 : [10:11]

n152 : [10:11]

n37 : [10:11]

n197 : [10:11]

n312 : [10:11]

n190 : [10:11]

n42 : [10:11]

n192 : [10:11]

n45 : [10:11]

n44 : [10:11]

n47 : [10:11]

n186 : [10:11]

n104 : [10:11]

n225 : [10:11]

n102 : [10:11]

n303 : [10:11]

n55 : [11:11]

n177 : [11:11]

n131 : [11:11]

n214 : [11:11]

n256 : [11:11]

n166 : [11:11]

n247 : [11:11]

n244 : [11:11]

n168 : [11:11]

n328 : [11:11]

n325 : [11:11]

n205 : [11:11]

n209 : [11:11]

n70 : [11:11]

n32 : [11:11]

n282 : [11:11]

n36 : [11:11]

n231 : [11:11]

n111 : [11:11]

n158 : [11:11]

n157 : [11:11]

n43 : [11:11]

n185 : [11:11]

n308 : [11:11]

n6 : [12:12]

n7 : [12:12]

n96 : [12:12]

n95 : [12:12]

n184 : [12:12]

n176 : [12:12]

n178 : [12:12]

n255 : [12:12]

n212 : [12:13]

n139 : [12:12]

n293 : [12:12]

n250 : [12:12]

n20 : [12:12]

n243 : [12:13]

n68 : [12:13]

n287 : [12:12]

n240 : [12:13]

n120 : [12:13]

n241 : [12:13]

n285 : [12:13]

n323 : [12:13]

n288 : [12:12]

n245 : [12:13]

n206 : [12:12]

n204 : [12:12]

n208 : [12:12]

n161 : [12:12]

n34 : [12:13]

n78 : [12:12]

n281 : [12:12]

n79 : [12:12]

n230 : [12:12]

n114 : [12:12]

n279 : [12:12]

n156 : [12:12]

n311 : [12:12]

n113 : [12:12]

n191 : [12:13]

n41 : [12:13]

n87 : [12:12]

n195 : [12:13]

n151 : [12:12]

n270 : [12:13]

n144 : [12:12]

n141 : [12:12]

n268 : [12:12]

n224 : [12:12]

n148 : [12:12]

n189 : [12:13]

n145 : [12:12]

n101 : [12:12]

n267 : [12:12]

n228 : [12:12]

n227 : [12:12]

n109 : [12:13]

n307 : [12:12]

n5 : [13:13]

n94 : [13:13]

n97 : [13:13]

n140 : [13:13]

n280 : [13:13]

n77 : [13:13]

n330 : [13:13]

n297 : [13:13]

n155 : [13:13]

n276 : [13:13]

n273 : [13:13]

n295 : [13:13]

n310 : [13:13]

n112 : [13:13]

n278 : [13:13]

n272 : [13:13]

n86 : [13:13]

n67 : [13:13]

n291 : [13:13]

n143 : [13:13]

n286 : [13:13]

n266 : [13:13]

n322 : [13:13]

n305 : [13:13]

n306 : [13:13]

n207 : [13:13]

n226 : [13:13]

Registered resources

CMP 13 21.0

ADD 11 12.0

ADD 13 1.0

ADD 5 1.0

MUL 10 36.8

MUL 9 36.8

MUL 8 36.8

MUL 7 27.599999999999998

MUL 11 9.2

SH 11 24.0

SH 7 24.0

SH 3 12.0

OR 13 32.0

OR 9 32.0

OR 5 16.0

AND 12 80.0

AND 8 64.0

AND 4 32.0

MEM 11 333.0

MEM 10 333.0

MEM 9 288.0

MEM 8 288.0

MEM 13 144.0

MEM 12 144.0

MEM 7 144.0

MEM 6 144.0

MEM 5 144.0

MEM 4 144.0

MEM 3 72.0

MEM 2 72.0

MEM 1 72.0

MEM 0 72.0

cost = 538.8

# WhirlpoolDigest-#init#-75-755

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=57098:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-#init#-75-755.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-#init#-75-755.dot

n90 (Other):

successors

n89 0

n92 (Other):

successors

n91 0

n91 (Shift):

successors

n144 0

predecessors

n92 0

n94 (Or):

successors

n195 0

predecessors

n96 0

n95 0

n93 (Or):

successors

n95 0

predecessors

n32 0

n42 0

n96 (Shift):

successors

n94 0

predecessors

n41 0

n95 (Or):

successors

n94 0

predecessors

n168 0

n93 0

n98 (Shift):

successors

n124 0

predecessors

n99 0

n97 (Or):

successors

n177 0

predecessors

n77 0

n99 (Other):

successors

n98 0

predecessors

n1 0

n202 (Add):

n203 (Cmp):

n200 (Mem):

predecessors

n195 0

n201 (Other):

successors

n150 0

n110 (Or):

successors

n33 0

predecessors

n185 0

n184 0

n111 (Shift):

successors

n33 0

predecessors

n151 0

n114 (Other):

successors

n113 0

predecessors

n28 0

n115 (Shift):

successors

n122 0

predecessors

n116 0

n112 (Shift):

successors

n136 0

predecessors

n12 0

n113 (Shift):

successors

n144 0

predecessors

n114 0

n118 (Or):

successors

n117 0

predecessors

n24 0

n127 0

n119 (Other):

successors

n23 0

n116 (Other):

successors

n115 0

predecessors

n1 0

n117 (Or):

successors

n56 0

predecessors

n16 0

n118 0

n100 (Or):

successors

n132 0

predecessors

n101 0

n102 0

n103 (Other):

successors

n170 0

predecessors

n1 0

n104 (Shift):

successors

n107 0

predecessors

n105 0

n101 (Or):

successors

n100 0

predecessors

n61 0

n170 0

n102 (Shift):

successors

n100 0

predecessors

n26 0

n107 (Or):

successors

n23 0

predecessors

n104 0

n108 0

n108 (Or):

successors

n107 0

predecessors

n197 0

n172 0

n105 (Other):

successors

n104 0

predecessors

n28 0

n106 (Other):

successors

n66 0

n109 (Other):

successors

n34 0

predecessors

n28 0

n10 (Other):

successors

n174 0

predecessors

n1 0

n140 (Other):

successors

n71 0

predecessors

n1 0

n12 (Other):

successors

n112 0

predecessors

n11 0

n11 (Or):

successors

n155 0

n68 0

n169 0

n180 0

n30 0

n8 0

n12 0

n88 0

predecessors

n1 0

n14 (Or):

successors

n13 0

predecessors

n36 0

n35 0

n132 (Or):

successors

n131 0

predecessors

n58 0

n100 0

n13 (Or):

successors

n192 0

predecessors

n14 0

n15 0

n133 (Other):

successors

n47 0

n16 (Shift):

successors

n117 0

predecessors

n17 0

n130 (Or):

successors

n156 0

predecessors

n79 0

n20 0

n15 (Shift):

successors

n13 0

predecessors

n84 0

n131 (Or):

successors

n134 0

predecessors

n132 0

n73 0

n18 (Shift):

successors

n164 0

predecessors

n19 0

n136 (Or):

successors

n70 0

predecessors

n112 0

n160 0

n17 (Other):

successors

n16 0

predecessors

n1 0

n137 (Cmp):

predecessors

n76 0

n134 (Or):

successors

n82 0

predecessors

n131 0

n39 0

n19 (Other):

successors

n18 0

n135 (Shift):

successors

n82 0

predecessors

n155 0

n138 (Other):

successors

n185 0

predecessors

n1 0

n139 (Or):

predecessors

n52 0

n21 (Other):

successors

n20 0

predecessors

n1 0

n20 (Shift):

successors

n130 0

predecessors

n21 0

n23 (Or):

successors

n22 0

predecessors

n107 0

n119 0

n22 (Mem):

predecessors

n23 0

n25 (Other):

successors

n24 0

predecessors

n1 0

n121 (Or):

successors

n198 0

predecessors

n51 0

n24 (Shift):

successors

n118 0

predecessors

n25 0

n122 (Or):

successors

n147 0

predecessors

n115 0

n123 0

n27 (Other):

successors

n153 0

predecessors

n28 0

n26 (Other):

successors

n102 0

predecessors

n1 0

n120 (Shift):

successors

n70 0

predecessors

n31 0

n29 (Shift):

successors

n179 0

predecessors

n30 0

n125 (Or):

successors

n124 0

predecessors

n147 0

n148 0

n28 (Or):

successors

n27 0

n114 0

n3 0

n72 0

n60 0

n105 0

n87 0

n109 0

predecessors

n1 0

n126 (Other):

successors

n175 0

predecessors

n1 0

n123 (Or):

successors

n122 0

predecessors

n144 0

n67 0

n124 (Or):

successors

n150 0

predecessors

n125 0

n98 0

n129 (Shift):

successors

n127 0

predecessors

n180 0

n127 (Or):

successors

n118 0

predecessors

n129 0

n128 0

n128 (Shift):

successors

n127 0

predecessors

n189 0

n30 (Other):

successors

n29 0

predecessors

n11 0

n32 (Or):

successors

n93 0

predecessors

n34 0

n33 0

n161 (Mem):

predecessors

n81 0

n31 (Other):

successors

n120 0

predecessors

n1 0

n162 (Other):

successors

n190 0

predecessors

n1 0

n34 (Shift):

successors

n32 0

predecessors

n109 0

n33 (Or):

successors

n32 0

predecessors

n110 0

n111 0

n160 (Or):

successors

n136 0

predecessors

n156 0

n89 0

n36 (Shift):

successors

n14 0

predecessors

n9 0

n154 (Other):

successors

n163 0

predecessors

n1 0

n35 (Shift):

successors

n14 0

predecessors

n88 0

n155 (Other):

successors

n135 0

predecessors

n11 0

n38 (Other):

successors

n37 0

n152 (Mem):

predecessors

n153 0

n37 (Shift):

successors

n166 0

predecessors

n38 0

n153 (Or):

successors

n152 0

predecessors

n27 0

n74 0

n158 (Or):

successors

n157 0

predecessors

n141 0

n179 0

n39 (Shift):

successors

n134 0

predecessors

n40 0

n159 (Other):

successors

n148 0

n156 (Or):

successors

n160 0

predecessors

n130 0

n86 0

n157 (Or):

successors

n176 0

predecessors

n158 0

n85 0

n41 (Other):

successors

n96 0

predecessors

n1 0

n40 (Other):

successors

n39 0

n43 (Other):

successors

n42 0

n150 (Or):

successors

n149 0

predecessors

n124 0

n201 0

n42 (Shift):

successors

n93 0

predecessors

n43 0

n151 (Other):

successors

n111 0

n45 (Other):

successors

n44 0

predecessors

n1 0

n44 (Shift):

successors

n196 0

predecessors

n45 0

n47 (Shift):

successors

n46 0

predecessors

n133 0

n143 (Shift):

successors

n56 0

predecessors

n181 0

n46 (Or):

successors

n164 0

predecessors

n47 0

n48 0

n144 (Or):

successors

n123 0

predecessors

n113 0

n91 0

n49 (Other):

successors

n76 0

predecessors

n50 0

n141 (Shift):

successors

n158 0

predecessors

n142 0

n48 (Shift):

successors

n46 0

predecessors

n60 0

n142 (Other):

successors

n141 0

predecessors

n1 0

n147 (Or):

successors

n125 0

predecessors

n122 0

n163 0

n148 (Shift):

successors

n125 0

predecessors

n159 0

n145 (Shift):

successors

n176 0

predecessors

n146 0

n146 (Other):

successors

n145 0

n149 (Mem):

predecessors

n150 0

n0 (Other):

successors

n57 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

n50 0

n9 0

n10 0

n54 0

n183 0

n31 0

n140 0

n162 0

n11 0

n99 0

n154 0

n17 0

n138 0

n116 0

n83 0

n41 0

n63 0

n84 0

n21 0

n45 0

n25 0

n26 0

n142 0

n103 0

n28 0

n126 0

n2 (Shift):

successors

n165 0

predecessors

n3 0

n3 (Other):

successors

n2 0

predecessors

n28 0

n4 (Mem):

predecessors

n5 0

n5 (Or):

successors

n4 0

predecessors

n69 0

n167 0

n6 (Or):

successors

n194 0

predecessors

n7 0

n8 0

n50 (Shift):

successors

n188 0

n49 0

predecessors

n1 0

n7 (Or):

successors

n6 0

predecessors

n165 0

n171 0

n180 (Other):

successors

n129 0

predecessors

n11 0

n8 (Other):

successors

n6 0

predecessors

n11 0

n52 (Shift):

successors

n51 0

n139 0

n9 (Other):

successors

n36 0

predecessors

n1 0

n51 (Other):

successors

n121 0

predecessors

n52 0

n54 (Other):

successors

n53 0

predecessors

n1 0

n183 (Other):

successors

n195 0

predecessors

n1 0

n53 (Shift):

successors

n65 0

predecessors

n54 0

n184 (Shift):

successors

n110 0

predecessors

n191 0

n56 (Or):

successors

n55 0

predecessors

n143 0

n117 0

n181 (Other):

successors

n143 0

n55 (Or):

successors

n74 0

predecessors

n57 0

n56 0

n182 (Other):

successors

n75 0

n58 (Shift):

successors

n132 0

predecessors

n59 0

n176 (Or):

successors

n175 0

predecessors

n145 0

n157 0

n57 (Shift):

successors

n55 0

predecessors

n0 0

n177 (Cmp):

predecessors

n97 0

n174 (Shift):

successors

n65 0

predecessors

n10 0

n59 (Other):

successors

n58 0

n175 (Or):

successors

n186 0

predecessors

n176 0

n126 0

n178 (Or):

predecessors

n78 0

n179 (Or):

successors

n158 0

predecessors

n164 0

n29 0

n61 (Shift):

successors

n101 0

predecessors

n62 0

n60 (Other):

successors

n48 0

predecessors

n28 0

n63 (Other):

successors

n85 0

predecessors

n1 0

n62 (Other):

successors

n61 0

n65 (Or):

successors

n64 0

predecessors

n174 0

n53 0

n172 (Shift):

successors

n108 0

predecessors

n173 0

n64 (Or):

successors

n196 0

predecessors

n65 0

n66 0

n173 (Other):

successors

n172 0

n67 (Shift):

successors

n123 0

predecessors

n68 0

n170 (Shift):

successors

n101 0

predecessors

n103 0

n66 (Shift):

successors

n64 0

predecessors

n106 0

n171 (Shift):

successors

n7 0

predecessors

n187 0

n69 (Or):

successors

n5 0

predecessors

n70 0

n71 0

n165 (Or):

successors

n7 0

predecessors

n166 0

n2 0

n68 (Other):

successors

n67 0

predecessors

n11 0

n166 (Or):

successors

n165 0

predecessors

n196 0

n37 0

n163 (Shift):

successors

n147 0

predecessors

n154 0

n164 (Or):

successors

n179 0

predecessors

n46 0

n18 0

n169 (Other):

successors

n168 0

predecessors

n11 0

n167 (Other):

successors

n5 0

n168 (Shift):

successors

n95 0

predecessors

n169 0

n70 (Or):

successors

n69 0

predecessors

n120 0

n136 0

n72 (Other):

successors

n73 0

predecessors

n28 0

n71 (Shift):

successors

n69 0

predecessors

n140 0

n74 (Or):

successors

n153 0

predecessors

n75 0

n55 0

n73 (Shift):

successors

n131 0

predecessors

n72 0

n76 (Or):

successors

n137 0

predecessors

n49 0

n75 (Shift):

successors

n74 0

predecessors

n182 0

n78 (Shift):

successors

n178 0

n77 0

n77 (Other):

successors

n97 0

predecessors

n78 0

n198 (Cmp):

predecessors

n121 0

n79 (Shift):

successors

n130 0

predecessors

n80 0

n199 (Other):

successors

n193 0

n196 (Or):

successors

n166 0

predecessors

n64 0

n44 0

n197 (Or):

successors

n108 0

predecessors

n190 0

n192 0

n81 (Or):

successors

n161 0

predecessors

n83 0

n82 0

n80 (Other):

successors

n79 0

n83 (Other):

successors

n81 0

predecessors

n1 0

n190 (Shift):

successors

n197 0

predecessors

n162 0

n82 (Or):

successors

n81 0

predecessors

n134 0

n135 0

n191 (Other):

successors

n184 0

n85 (Shift):

successors

n157 0

predecessors

n63 0

n84 (Other):

successors

n15 0

predecessors

n1 0

n87 (Other):

successors

n86 0

predecessors

n28 0

n194 (Mem):

predecessors

n6 0

n86 (Shift):

successors

n156 0

predecessors

n87 0

n195 (Or):

successors

n200 0

predecessors

n94 0

n183 0

n89 (Shift):

successors

n160 0

predecessors

n90 0

n192 (Or):

successors

n197 0

predecessors

n13 0

n193 0

n88 (Other):

successors

n35 0

predecessors

n11 0

n193 (Shift):

successors

n192 0

predecessors

n199 0

n187 (Other):

successors

n171 0

n188 (Or):

predecessors

n50 0

n185 (Shift):

successors

n110 0

predecessors

n138 0

n186 (Mem):

predecessors

n175 0

n189 (Other):

successors

n128 0

Nr of Nodes : 204

ASAP

Found schedule of length 14

n1 : [0:1]

n90 : [0:0]

n92 : [0:0]

n52 : [0:0]

n181 : [0:0]

n78 : [0:0]

n182 : [0:0]

n133 : [0:0]

n199 : [0:0]

n38 : [0:0]

n59 : [0:0]

n159 : [0:0]

n19 : [0:0]

n119 : [0:0]

n80 : [0:0]

n191 : [0:0]

n40 : [0:0]

n62 : [0:0]

n43 : [0:0]

n151 : [0:0]

n173 : [0:0]

n187 : [0:0]

n202 : [0:0]

n203 : [0:0]

n167 : [0:0]

n189 : [0:0]

n201 : [0:0]

n146 : [0:0]

n106 : [0:0]

n91 : [1:1]

n51 : [1:1]

n184 : [1:1]

n75 : [1:1]

n77 : [1:1]

n58 : [1:1]

n79 : [1:1]

n111 : [1:1]

n37 : [1:1]

n18 : [1:1]

n39 : [1:1]

n178 : [1:1]

n139 : [1:1]

n61 : [1:1]

n172 : [1:1]

n42 : [1:1]

n89 : [1:1]

n171 : [1:1]

n66 : [1:1]

n193 : [1:1]

n143 : [1:1]

n47 : [1:1]

n148 : [1:1]

n145 : [1:1]

n128 : [1:1]

n0 : [2:2]

n50 : [2:2]

n9 : [2:2]

n10 : [2:2]

n54 : [2:2]

n183 : [2:2]

n140 : [2:2]

n31 : [2:2]

n162 : [2:2]

n97 : [2:2]

n11 : [2:2]

n99 : [2:2]

n154 : [2:2]

n17 : [2:2]

n138 : [2:2]

n116 : [2:2]

n83 : [2:2]

n63 : [2:2]

n41 : [2:2]

n84 : [2:2]

n21 : [2:2]

n45 : [2:2]

n25 : [2:2]

n121 : [2:2]

n26 : [2:2]

n142 : [2:2]

n103 : [2:2]

n28 : [2:2]

n126 : [2:2]

n3 : [3:3]

n72 : [3:3]

n71 : [3:3]

n180 : [3:3]

n30 : [3:3]

n8 : [3:3]

n96 : [3:3]

n98 : [3:3]

n53 : [3:3]

n12 : [3:3]

n36 : [3:3]

n198 : [3:3]

n57 : [3:3]

n155 : [3:3]

n177 : [3:3]

n174 : [3:3]

n16 : [3:3]

n15 : [3:3]

n114 : [3:3]

n115 : [3:3]

n190 : [3:3]

n60 : [3:3]

n85 : [3:3]

n87 : [3:3]

n20 : [3:3]

n170 : [3:3]

n88 : [3:3]

n44 : [3:3]

n188 : [3:3]

n68 : [3:3]

n24 : [3:3]

n49 : [3:3]

n185 : [3:3]

n27 : [3:3]

n163 : [3:3]

n141 : [3:3]

n120 : [3:3]

n169 : [3:3]

n102 : [3:3]

n105 : [3:3]

n109 : [3:3]

n2 : [4:4]

n73 : [4:4]

n65 : [4:4]

n76 : [4:4]

n86 : [4:4]

n67 : [4:4]

n34 : [4:4]

n110 : [4:4]

n35 : [4:4]

n130 : [4:4]

n48 : [4:4]

n29 : [4:4]

n104 : [4:4]

n112 : [4:4]

n101 : [4:4]

n135 : [4:4]

n113 : [4:4]

n168 : [4:4]

n129 : [4:4]

n14 : [5:5]

n46 : [5:5]

n100 : [5:5]

n144 : [5:5]

n137 : [5:5]

n156 : [5:5]

n127 : [5:5]

n64 : [5:5]

n33 : [5:5]

n132 : [6:6]

n13 : [6:6]

n196 : [6:6]

n164 : [6:6]

n123 : [6:6]

n118 : [6:6]

n32 : [6:6]

n160 : [6:6]

n166 : [7:7]

n122 : [7:7]

n131 : [7:7]

n136 : [7:7]

n179 : [7:7]

n93 : [7:7]

n117 : [7:7]

n192 : [7:7]

n165 : [8:8]

n197 : [8:8]

n147 : [8:8]

n158 : [8:8]

n134 : [8:8]

n70 : [8:8]

n95 : [8:8]

n56 : [8:8]

n69 : [9:9]

n125 : [9:9]

n157 : [9:9]

n94 : [9:9]

n7 : [9:9]

n108 : [9:9]

n82 : [9:9]

n55 : [9:9]

n176 : [10:10]

n81 : [10:10]

n5 : [10:10]

n124 : [10:10]

n6 : [10:10]

n107 : [10:10]

n74 : [10:10]

n195 : [10:10]

n175 : [11:11]

n153 : [11:11]

n4 : [11:12]

n200 : [11:12]

n161 : [11:12]

n150 : [11:11]

n194 : [11:12]

n23 : [11:11]

n152 : [12:13]

n186 : [12:13]

n149 : [12:13]

n22 : [12:13]

Registered resources

OR 10 16.0

OR 9 16.0

OR 8 16.0

OR 7 16.0

OR 6 16.0

OR 5 16.0

OR 4 10.0

OR 11 8.0

OR 2 8.0

OR 1 4.0

OR 3 2.0

CMP 3 4.2

CMP 5 2.1

CMP 0 2.1

SH 3 42.0

SH 1 42.0

SH 4 28.0

SH 0 4.0

SH 2 2.0

ADD 0 1.0

OTHER 2 24.0

OTHER 0 24.0

OTHER 3 17.0

OTHER 1 2.0

MEM 12 72.0

MEM 13 36.0

MEM 11 36.0

MEM 1 9.0

MEM 0 9.0

cost = 159.2

ALAP

Found schedule of length 14

n1 : [0:1]

n28 : [2:2]

n11 : [2:2]

n92 : [3:3]

n80 : [3:3]

n191 : [3:3]

n60 : [3:3]

n180 : [3:3]

n62 : [3:3]

n9 : [3:3]

n54 : [3:3]

n21 : [3:3]

n10 : [3:3]

n88 : [3:3]

n133 : [3:3]

n103 : [3:3]

n114 : [3:3]

n189 : [3:3]

n138 : [3:3]

n91 : [4:4]

n61 : [4:4]

n84 : [4:4]

n87 : [4:4]

n53 : [4:4]

n184 : [4:4]

n151 : [4:4]

n20 : [4:4]

n170 : [4:4]

n36 : [4:4]

n47 : [4:4]

n25 : [4:4]

n68 : [4:4]

n35 : [4:4]

n79 : [4:4]

n174 : [4:4]

n185 : [4:4]

n48 : [4:4]

n26 : [4:4]

n113 : [4:4]

n19 : [4:4]

n129 : [4:4]

n106 : [4:4]

n128 : [4:4]

n90 : [5:5]

n30 : [5:5]

n65 : [5:5]

n86 : [5:5]

n45 : [5:5]

n67 : [5:5]

n66 : [5:5]

n110 : [5:5]

n14 : [5:5]

n111 : [5:5]

n199 : [5:5]

n46 : [5:5]

n144 : [5:5]

n24 : [5:5]

n130 : [5:5]

n59 : [5:5]

n15 : [5:5]

n18 : [5:5]

n17 : [5:5]

n101 : [5:5]

n102 : [5:5]

n116 : [5:5]

n127 : [5:5]

n109 : [5:5]

n72 : [6:6]

n43 : [6:6]

n162 : [6:6]

n64 : [6:6]

n34 : [6:6]

n89 : [6:6]

n181 : [6:6]

n12 : [6:6]

n33 : [6:6]

n193 : [6:6]

n44 : [6:6]

n58 : [6:6]

n154 : [6:6]

n13 : [6:6]

n100 : [6:6]

n38 : [6:6]

n16 : [6:6]

n142 : [6:6]

n164 : [6:6]

n29 : [6:6]

n115 : [6:6]

n156 : [6:6]

n123 : [6:6]

n118 : [6:6]

n0 : [7:7]

n3 : [7:7]

n190 : [7:7]

n63 : [7:7]

n73 : [7:7]

n40 : [7:7]

n32 : [7:7]

n42 : [7:7]

n173 : [7:7]

n31 : [7:7]

n192 : [7:7]

n160 : [7:7]

n143 : [7:7]

n132 : [7:7]

n122 : [7:7]

n196 : [7:7]

n163 : [7:7]

n141 : [7:7]

n37 : [7:7]

n169 : [7:7]

n159 : [7:7]

n112 : [7:7]

n179 : [7:7]

n117 : [7:7]

n2 : [8:8]

n93 : [8:8]

n41 : [8:8]

n85 : [8:8]

n172 : [8:8]

n140 : [8:8]

n56 : [8:8]

n99 : [8:8]

n182 : [8:8]

n187 : [8:8]

n57 : [8:8]

n166 : [8:8]

n155 : [8:8]

n120 : [8:8]

n131 : [8:8]

n197 : [8:8]

n136 : [8:8]

n147 : [8:8]

n158 : [8:8]

n148 : [8:8]

n39 : [8:8]

n168 : [8:8]

n146 : [8:8]

n105 : [8:8]

n70 : [9:9]

n71 : [9:9]

n96 : [9:9]

n95 : [9:9]

n98 : [9:9]

n75 : [9:9]

n171 : [9:9]

n55 : [9:9]

n165 : [9:9]

n125 : [9:9]

n104 : [9:9]

n134 : [9:9]

n145 : [9:9]

n135 : [9:9]

n157 : [9:9]

n108 : [9:9]

n83 : [10:10]

n94 : [10:10]

n50 : [10:10]

n82 : [10:10]

n7 : [10:10]

n74 : [10:10]

n8 : [10:10]

n52 : [10:10]

n183 : [10:10]

n78 : [10:10]

n176 : [10:10]

n69 : [10:10]

n27 : [10:10]

n126 : [10:10]

n167 : [10:10]

n124 : [10:10]

n201 : [10:10]

n107 : [10:10]

n119 : [10:10]

n49 : [11:11]

n153 : [11:11]

n175 : [11:11]

n81 : [11:11]

n5 : [11:11]

n6 : [11:11]

n51 : [11:11]

n150 : [11:11]

n195 : [11:11]

n23 : [11:11]

n77 : [11:11]

n121 : [12:12]

n152 : [12:13]

n186 : [12:13]

n4 : [12:13]

n200 : [12:13]

n149 : [12:13]

n161 : [12:13]

n194 : [12:13]

n76 : [12:12]

n97 : [12:12]

n22 : [12:13]

n198 : [13:13]

n177 : [13:13]

n188 : [13:13]

n202 : [13:13]

n203 : [13:13]

n137 : [13:13]

n178 : [13:13]

n139 : [13:13]

Registered resources

OR 11 16.0

OR 10 16.0

OR 9 16.0

OR 8 16.0

OR 7 16.0

OR 6 16.0

OR 5 16.0

OR 13 6.0

OR 12 6.0

OR 2 4.0

CMP 13 8.4

ADD 13 1.0

SH 4 32.0

SH 9 16.0

SH 8 16.0

SH 7 16.0

SH 6 16.0

SH 5 16.0

SH 10 6.0

OTHER 3 16.0

OTHER 10 8.0

OTHER 8 8.0

OTHER 7 8.0

OTHER 6 8.0

OTHER 5 8.0

OTHER 4 8.0

OTHER 11 3.0

MEM 13 72.0

MEM 12 72.0

MEM 1 9.0

MEM 0 9.0

cost = 145.4

# WhirlpoolDigest-#init#-310-427

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51224:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-#init#-310-427.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-#init#-310-427.dot

n0 (And):

successors

n2 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n16 0

n2 (Or):

successors

n23 0

predecessors

n0 0

n3 0

n3 (Or):

successors

n2 0

predecessors

n4 0

n20 0

n4 (Or):

successors

n3 0

predecessors

n5 0

n6 0

n5 (And):

successors

n4 0

predecessors

n7 0

n6 (And):

successors

n4 0

predecessors

n25 0

n7 (Mem):

successors

n5 0

predecessors

n13 0

n8 (Mem):

successors

n20 0

predecessors

n9 0

n30 (And):

successors

n23 0

predecessors

n18 0

n9 (Add):

successors

n8 0

predecessors

n13 0

n10 (Mem):

successors

n31 0

predecessors

n11 0

n32 (Mem):

predecessors

n27 0

n33 0

n31 (And):

successors

n28 0

predecessors

n10 0

n12 (Add):

successors

n21 0

predecessors

n13 0

n34 (Add):

n11 (Add):

successors

n10 0

predecessors

n13 0

n33 (Mem):

successors

n32 0

n14 (Mem):

successors

n29 0

predecessors

n15 0

n13 (Mul):

successors

n16 0

n15 0

n26 0

n19 0

n7 0

n9 0

n12 0

n11 0

predecessors

n17 0

n35 (Cmp):

n16 (Add):

successors

n1 0

predecessors

n13 0

n15 (Add):

successors

n14 0

predecessors

n13 0

n18 (Mem):

successors

n30 0

predecessors

n19 0

n17 (Sub):

successors

n13 0

n19 (Add):

successors

n18 0

predecessors

n13 0

n21 (Mem):

successors

n24 0

predecessors

n12 0

n20 (And):

successors

n3 0

predecessors

n8 0

n23 (Or):

successors

n22 0

predecessors

n2 0

n30 0

n22 (Or):

successors

n28 0

predecessors

n24 0

n23 0

n25 (Mem):

successors

n6 0

predecessors

n26 0

n24 (And):

successors

n22 0

predecessors

n21 0

n27 (Or):

successors

n32 0

predecessors

n29 0

n28 0

n26 (Add):

successors

n25 0

predecessors

n13 0

n29 (And):

successors

n27 0

predecessors

n14 0

n28 (Or):

successors

n27 0

predecessors

n31 0

n22 0

Nr of Nodes : 36

ASAP

Found schedule of length 18

n35 : [0:0]

n17 : [0:0]

n34 : [0:0]

n33 : [0:1]

n13 : [1:4]

n16 : [5:5]

n15 : [5:5]

n26 : [5:5]

n19 : [5:5]

n7 : [5:6]

n9 : [5:5]

n12 : [5:5]

n11 : [5:5]

n14 : [6:7]

n25 : [6:7]

n1 : [6:7]

n18 : [6:7]

n8 : [6:7]

n21 : [6:7]

n10 : [6:7]

n5 : [7:7]

n24 : [8:8]

n0 : [8:8]

n29 : [8:8]

n6 : [8:8]

n30 : [8:8]

n20 : [8:8]

n31 : [8:8]

n4 : [9:9]

n3 : [10:10]

n2 : [11:11]

n23 : [12:12]

n22 : [13:13]

n28 : [14:14]

n27 : [15:15]

n32 : [16:17]

Registered resources

AND 8 14.0

AND 7 2.0

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

ADD 5 7.0

ADD 0 1.0

MEM 6 72.0

MEM 7 63.0

MEM 17 9.0

MEM 16 9.0

MEM 5 9.0

MEM 1 9.0

MEM 0 9.0

SUB 0 1.4

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

CMP 0 2.1

cost = 100.8

ALAP

Found schedule of length 18

n17 : [0:0]

n13 : [1:4]

n26 : [5:5]

n25 : [6:7]

n7 : [6:7]

n9 : [6:6]

n16 : [7:7]

n8 : [7:8]

n1 : [8:9]

n19 : [8:8]

n5 : [8:8]

n6 : [8:8]

n18 : [9:10]

n4 : [9:9]

n20 : [9:9]

n12 : [9:9]

n0 : [10:10]

n3 : [10:10]

n21 : [10:11]

n11 : [10:10]

n15 : [11:11]

n2 : [11:11]

n30 : [11:11]

n10 : [11:12]

n14 : [12:13]

n24 : [12:12]

n23 : [12:12]

n31 : [13:13]

n22 : [13:13]

n29 : [14:14]

n28 : [14:14]

n33 : [14:15]

n27 : [15:15]

n32 : [16:17]

n35 : [17:17]

n34 : [17:17]

Registered resources

AND 8 4.0

AND 14 2.0

AND 13 2.0

AND 12 2.0

AND 11 2.0

AND 10 2.0

AND 9 2.0

MUL 4 2.3

MUL 3 2.3

MUL 2 2.3

MUL 1 2.3

MEM 7 27.0

MEM 12 18.0

MEM 11 18.0

MEM 10 18.0

MEM 9 18.0

MEM 8 18.0

MEM 6 18.0

MEM 17 9.0

MEM 16 9.0

MEM 15 9.0

MEM 14 9.0

MEM 13 9.0

ADD 17 1.0

ADD 11 1.0

ADD 10 1.0

ADD 9 1.0

ADD 8 1.0

ADD 7 1.0

ADD 6 1.0

ADD 5 1.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

SUB 0 1.4

CMP 17 2.1

cost = 39.8

# WhirlpoolDigest-increment-10-53

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51245:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-increment-10-53.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-increment-10-53.dot

n0 (Other):

successors

n6 0

predecessors

n1 0

n1 (And):

successors

n0 0

predecessors

n2 0

n2 (Add):

successors

n1 0

n9 0

predecessors

n5 0

n3 (And):

successors

n5 0

predecessors

n4 0

n4 (Or):

successors

n3 0

predecessors

n7 0

n5 (Add):

successors

n2 0

predecessors

n3 0

n8 0

n6 (Or):

predecessors

n0 0

n7 0

n7 (Mem):

successors

n4 0

n6 0

n8 (Or):

successors

n5 0

n9 (Shift):

predecessors

n2 0

n10 (Add):

n11 (Cmp):

Nr of Nodes : 12

ASAP

Found schedule of length 9

n7 : [0:1]

n8 : [0:0]

n10 : [0:0]

n11 : [0:0]

n4 : [2:2]

n3 : [3:3]

n5 : [4:4]

n2 : [5:5]

n1 : [6:6]

n9 : [6:6]

n0 : [7:7]

n6 : [8:8]

Registered resources

SH 6 2.0

AND 6 2.0

AND 3 2.0

ADD 5 1.0

ADD 4 1.0

ADD 0 1.0

CMP 0 2.1

OR 8 2.0

OR 2 2.0

OR 0 2.0

OTHER 7 1.0

MEM 1 9.0

MEM 0 9.0

cost = 19.1

ALAP

Found schedule of length 9

n7 : [0:1]

n4 : [2:2]

n3 : [3:3]

n8 : [3:3]

n5 : [4:4]

n2 : [5:5]

n1 : [6:6]

n0 : [7:7]

n6 : [8:8]

n9 : [8:8]

n10 : [8:8]

n11 : [8:8]

Registered resources

SH 8 2.0

AND 6 2.0

AND 3 2.0

ADD 8 1.0

ADD 5 1.0

ADD 4 1.0

CMP 8 2.1

OR 8 2.0

OR 3 2.0

OR 2 2.0

OTHER 7 1.0

MEM 1 9.0

MEM 0 9.0

cost = 19.1

# WhirlpoolDigest-processBlock-2-37

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51251:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-2-37.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-2-37.dot

n0 (Mem):

predecessors

n1 0

n2 0

n1 (Mem):

successors

n0 0

n2 (Mem):

successors

n0 0

n3 0

predecessors

n5 0

n3 (Or):

successors

n6 0

predecessors

n2 0

n4 0

n4 (Mem):

successors

n3 0

predecessors

n8 0

n5 (Mem):

successors

n2 0

n6 (Mem):

predecessors

n3 0

n7 0

n7 (Mem):

successors

n6 0

n8 (Mem):

successors

n4 0

n9 (Add):

n10 (Cmp):

Nr of Nodes : 11

ASAP

Found schedule of length 7

n1 : [0:1]

n5 : [0:1]

n7 : [0:1]

n8 : [0:1]

n9 : [0:0]

n10 : [0:0]

n2 : [2:3]

n4 : [2:3]

n0 : [4:5]

n3 : [4:4]

n6 : [5:6]

Registered resources

CMP 0 2.1

OR 4 2.0

ADD 0 1.0

MEM 1 36.0

MEM 0 36.0

MEM 5 18.0

MEM 3 18.0

MEM 2 18.0

MEM 6 9.0

MEM 4 9.0

cost = 41.1

ALAP

Found schedule of length 7

n5 : [0:1]

n8 : [0:1]

n2 : [2:3]

n4 : [2:3]

n1 : [3:4]

n7 : [3:4]

n3 : [4:4]

n0 : [5:6]

n6 : [5:6]

n9 : [6:6]

n10 : [6:6]

Registered resources

CMP 6 2.1

OR 4 2.0

ADD 6 1.0

MEM 3 36.0

MEM 6 18.0

MEM 5 18.0

MEM 4 18.0

MEM 2 18.0

MEM 1 18.0

MEM 0 18.0

cost = 41.1

# WhirlpoolDigest-processBlock-50-321

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51280:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-50-321.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-50-321.dot

n0 (Mem):

predecessors

n1 0

n2 0

n1 (Mem):

successors

n58 0

n57 0

n0 0

n70 0

n71 0

n40 0

n62 0

n44 0

n55 0

n2 (Or):

successors

n0 0

n33 0

predecessors

n17 0

n3 (Shift):

successors

n25 0

predecessors

n4 0

n4 (Mem):

successors

n3 0

predecessors

n15 0

n19 0

n5 (Or):

successors

n55 0

predecessors

n6 0

n7 0

n6 (Or):

successors

n58 0

n5 0

predecessors

n37 0

n67 0

n50 (Other):

successors

n49 0

predecessors

n46 0

n7 (Mem):

successors

n5 0

predecessors

n41 0

n8 (Shift):

successors

n24 0

predecessors

n9 0

n52 (Or):

successors

n62 0

n45 0

predecessors

n56 0

n33 0

n9 (Mem):

successors

n8 0

predecessors

n27 0

n15 0

n51 (Other):

successors

n18 0

predecessors

n21 0

n10 (And):

successors

n56 0

predecessors

n11 0

n54 (Other):

successors

n53 0

predecessors

n12 0

n53 (And):

successors

n67 0

predecessors

n54 0

n12 (Shift):

successors

n54 0

predecessors

n13 0

n56 (Mem):

successors

n52 0

predecessors

n10 0

n11 (Other):

successors

n10 0

predecessors

n65 0

n55 (Mem):

predecessors

n1 0

n5 0

n14 (Mem):

successors

n26 0

predecessors

n16 0

n15 0

n58 (Mem):

predecessors

n1 0

n6 0

n13 (Mem):

successors

n12 0

predecessors

n15 0

n60 0

n57 (Mem):

predecessors

n38 0

n1 0

n16 (And):

successors

n14 0

predecessors

n69 0

n15 (Mem):

successors

n14 0

n36 0

n47 0

n13 0

n4 0

n9 0

n66 0

n22 0

n59 (Other):

successors

n32 0

predecessors

n35 0

n18 (And):

successors

n17 0

predecessors

n51 0

n17 (Mem):

successors

n2 0

predecessors

n18 0

n19 (And):

successors

n4 0

predecessors

n20 0

n61 (And):

successors

n36 0

predecessors

n73 0

n60 (And):

successors

n13 0

predecessors

n72 0

n63 (And):

successors

n22 0

predecessors

n64 0

n62 (Mem):

predecessors

n1 0

n52 0

n21 (Shift):

successors

n51 0

predecessors

n22 0

n65 (Shift):

successors

n11 0

predecessors

n66 0

n20 (Sub):

successors

n19 0

n64 (Sub):

successors

n63 0

n23 (And):

successors

n34 0

predecessors

n24 0

n67 (Mem):

successors

n6 0

predecessors

n53 0

n22 (Mem):

successors

n21 0

predecessors

n15 0

n63 0

n66 (Mem):

successors

n65 0

predecessors

n15 0

n42 0

n25 (Other):

successors

n68 0

predecessors

n3 0

n69 (Sub):

successors

n16 0

n24 (Other):

successors

n23 0

predecessors

n8 0

n68 (And):

successors

n39 0

predecessors

n25 0

n27 (And):

successors

n9 0

predecessors

n28 0

n26 (Other):

successors

n41 0

predecessors

n14 0

n29 (And):

successors

n47 0

predecessors

n30 0

n28 (Sub):

successors

n27 0

n70 (Mem):

predecessors

n1 0

n72 (Sub):

successors

n60 0

n71 (Mem):

predecessors

n1 0

n37 0

n30 (Sub):

successors

n29 0

n74 (Add):

n73 (Sub):

successors

n61 0

n32 (And):

successors

n31 0

predecessors

n59 0

n31 (Mem):

successors

n45 0

predecessors

n32 0

n75 (Cmp):

n34 (Mem):

successors

n33 0

predecessors

n23 0

n33 (Or):

successors

n52 0

n40 0

predecessors

n2 0

n34 0

n36 (Mem):

successors

n35 0

predecessors

n15 0

n61 0

n35 (Shift):

successors

n59 0

predecessors

n36 0

n38 (Or):

successors

n57 0

n37 0

predecessors

n48 0

n45 0

n37 (Or):

successors

n6 0

n71 0

predecessors

n38 0

n39 0

n39 (Mem):

successors

n37 0

predecessors

n68 0

n41 (And):

successors

n7 0

predecessors

n26 0

n40 (Mem):

predecessors

n1 0

n33 0

n43 (Sub):

successors

n42 0

n42 (And):

successors

n66 0

predecessors

n43 0

n45 (Or):

successors

n38 0

n44 0

predecessors

n52 0

n31 0

n44 (Mem):

predecessors

n1 0

n45 0

n47 (Mem):

successors

n46 0

predecessors

n15 0

n29 0

n46 (Shift):

successors

n50 0

predecessors

n47 0

n49 (And):

successors

n48 0

predecessors

n50 0

n48 (Mem):

successors

n38 0

predecessors

n49 0

Nr of Nodes : 76

ASAP

Found schedule of length 19

n69 : [0:0]

n1 : [0:1]

n15 : [0:1]

n28 : [0:0]

n72 : [0:0]

n30 : [0:0]

n74 : [0:0]

n73 : [0:0]

n43 : [0:0]

n20 : [0:0]

n64 : [0:0]

n75 : [0:0]

n16 : [1:1]

n27 : [1:1]

n29 : [1:1]

n19 : [1:1]

n61 : [1:1]

n60 : [1:1]

n63 : [1:1]

n42 : [1:1]

n14 : [2:3]

n47 : [2:3]

n36 : [2:3]

n13 : [2:3]

n70 : [2:3]

n4 : [2:3]

n9 : [2:3]

n22 : [2:3]

n66 : [2:3]

n46 : [4:4]

n35 : [4:4]

n26 : [4:4]

n3 : [4:4]

n8 : [4:4]

n21 : [4:4]

n65 : [4:4]

n12 : [4:4]

n25 : [5:5]

n24 : [5:5]

n59 : [5:5]

n50 : [5:5]

n41 : [5:5]

n51 : [5:5]

n54 : [5:5]

n11 : [5:5]

n68 : [6:6]

n49 : [6:6]

n18 : [6:6]

n7 : [6:7]

n32 : [6:6]

n10 : [6:6]

n53 : [6:6]

n23 : [6:6]

n48 : [7:8]

n39 : [7:8]

n17 : [7:8]

n31 : [7:8]

n56 : [7:8]

n67 : [7:8]

n34 : [7:8]

n2 : [9:9]

n0 : [10:11]

n33 : [10:10]

n52 : [11:11]

n40 : [11:12]

n62 : [12:13]

n45 : [12:12]

n38 : [13:13]

n44 : [13:14]

n57 : [14:15]

n37 : [14:14]

n6 : [15:15]

n71 : [15:16]

n58 : [16:17]

n5 : [16:16]

n55 : [17:18]

Registered resources

SH 4 14.0

AND 1 16.0

AND 6 14.0

AND 5 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

ADD 0 1.0

CMP 0 2.1

MEM 3 81.0

MEM 2 81.0

MEM 7 72.0

MEM 8 63.0

MEM 17 18.0

MEM 16 18.0

MEM 15 18.0

MEM 14 18.0

MEM 13 18.0

MEM 12 18.0

MEM 11 18.0

MEM 1 18.0

MEM 0 18.0

MEM 18 9.0

MEM 10 9.0

MEM 6 9.0

OTHER 5 7.0

OTHER 4 1.0

SUB 0 11.2

cost = 134.29999999999998

ALAP

Found schedule of length 19

n15 : [0:1]

n64 : [0:0]

n28 : [1:1]

n63 : [1:1]

n27 : [2:2]

n43 : [2:2]

n22 : [2:3]

n73 : [3:3]

n9 : [3:4]

n42 : [3:3]

n61 : [4:4]

n30 : [4:4]

n21 : [4:4]

n66 : [4:5]

n36 : [5:6]

n29 : [5:5]

n8 : [5:5]

n51 : [5:5]

n20 : [5:5]

n47 : [6:7]

n24 : [6:6]

n18 : [6:6]

n19 : [6:6]

n72 : [6:6]

n65 : [6:6]

n35 : [7:7]

n17 : [7:8]

n4 : [7:8]

n60 : [7:7]

n23 : [7:7]

n11 : [7:7]

n69 : [8:8]

n13 : [8:9]

n46 : [8:8]

n59 : [8:8]

n10 : [8:8]

n34 : [8:9]

n16 : [9:9]

n2 : [9:9]

n3 : [9:9]

n50 : [9:9]

n32 : [9:9]

n56 : [9:10]

n14 : [10:11]

n25 : [10:10]

n49 : [10:10]

n31 : [10:11]

n12 : [10:10]

n33 : [10:10]

n68 : [11:11]

n48 : [11:12]

n52 : [11:11]

n54 : [11:11]

n26 : [12:12]

n39 : [12:13]

n53 : [12:12]

n45 : [12:12]

n38 : [13:13]

n41 : [13:13]

n67 : [13:14]

n37 : [14:14]

n7 : [14:15]

n1 : [15:16]

n6 : [15:15]

n5 : [16:16]

n58 : [17:18]

n57 : [17:18]

n0 : [17:18]

n70 : [17:18]

n71 : [17:18]

n62 : [17:18]

n40 : [17:18]

n55 : [17:18]

n44 : [17:18]

n74 : [18:18]

n75 : [18:18]

Registered resources

SH 10 2.0

SH 9 2.0

SH 8 2.0

SH 7 2.0

SH 6 2.0

SH 5 2.0

SH 4 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

AND 9 4.0

AND 7 4.0

AND 6 4.0

AND 13 2.0

AND 12 2.0

AND 11 2.0

AND 10 2.0

AND 8 2.0

AND 5 2.0

AND 4 2.0

AND 3 2.0

AND 2 2.0

AND 1 2.0

ADD 18 1.0

CMP 18 2.1

MEM 18 81.0

MEM 17 81.0

MEM 8 36.0

MEM 11 27.0

MEM 10 27.0

MEM 9 27.0

MEM 7 27.0

MEM 15 18.0

MEM 14 18.0

MEM 13 18.0

MEM 12 18.0

MEM 6 18.0

MEM 5 18.0

MEM 4 18.0

MEM 3 18.0

MEM 16 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

OTHER 12 1.0

OTHER 11 1.0

OTHER 10 1.0

OTHER 9 1.0

OTHER 8 1.0

OTHER 7 1.0

OTHER 6 1.0

OTHER 5 1.0

SUB 8 1.4

SUB 6 1.4

SUB 5 1.4

SUB 4 1.4

SUB 3 1.4

SUB 2 1.4

SUB 1 1.4

SUB 0 1.4

cost = 94.5

# WhirlpoolDigest-processBlock-359-635

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51304:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-359-635.dot

Scheduling scheduler-framework-master/graphs/WhirlpoolDigest-processBlock-359-635.dot

n0 (Other):

successors

n54 0

predecessors

n1 0

n1 (Shift):

successors

n0 0

predecessors

n16 0

n2 (Shift):

successors

n63 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

predecessors

n17 0

n12 0

n4 (Mem):

successors

n59 0

predecessors

n5 0

n5 (And):

successors

n4 0

predecessors

n40 0

n6 (Or):

successors

n56 0

predecessors

n7 0

n8 0

n50 (And):

successors

n49 0

predecessors

n38 0

n7 (Or):

successors

n6 0

n73 0

predecessors

n69 0

n27 0

n8 (Mem):

successors

n6 0

predecessors

n57 0

n52 (Mem):

predecessors

n53 0

n22 0

n9 (Or):

successors

n23 0

n33 0

predecessors

n10 0

n11 0

n51 (And):

successors

n69 0

predecessors

n30 0

n10 (Mem):

successors

n71 0

n9 0

predecessors

n60 0

n54 (And):

successors

n48 0

predecessors

n0 0

n53 (Or):

successors

n27 0

n52 0

predecessors

n49 0

n59 0

n12 (And):

successors

n3 0

predecessors

n13 0

n56 (Mem):

predecessors

n6 0

n22 0

n11 (Mem):

successors

n9 0

predecessors

n58 0

n55 (And):

successors

n32 0

predecessors

n70 0

n14 (Shift):

successors

n44 0

predecessors

n15 0

n58 (And):

successors

n11 0

predecessors

n63 0

n13 (Sub):

successors

n12 0

n57 (And):

successors

n8 0

predecessors

n34 0

n16 (Mem):

successors

n1 0

predecessors

n18 0

n17 0

n15 (Mem):

successors

n14 0

predecessors

n17 0

n67 0

n59 (Or):

successors

n72 0

n53 0

predecessors

n47 0

n4 0

n18 (And):

successors

n16 0

predecessors

n74 0

n17 (Mem):

successors

n35 0

n16 0

n15 0

n28 0

n3 0

n61 0

n32 0

n64 0

n19 (And):

successors

n42 0

predecessors

n20 0

n61 (Mem):

successors

n31 0

predecessors

n17 0

n65 0

n60 (Mem):

successors

n10 0

n63 (Other):

successors

n58 0

predecessors

n2 0

n62 (Mem):

successors

n27 0

predecessors

n43 0

n21 (Mem):

predecessors

n23 0

n22 0

n65 (And):

successors

n61 0

predecessors

n66 0

n20 (Other):

successors

n19 0

predecessors

n29 0

n64 (Mem):

successors

n39 0

predecessors

n17 0

n45 0

n23 (Or):

successors

n47 0

n21 0

predecessors

n9 0

n42 0

n67 (And):

successors

n15 0

predecessors

n68 0

n22 (Mem):

successors

n26 0

n72 0

n71 0

n52 0

n73 0

n21 0

n75 0

n56 0

n33 0

n66 (Sub):

successors

n65 0

n25 (Sub):

successors

n24 0

n69 (Mem):

successors

n7 0

predecessors

n51 0

n24 (And):

successors

n28 0

predecessors

n25 0

n68 (Sub):

successors

n67 0

n27 (Or):

successors

n26 0

n7 0

predecessors

n62 0

n53 0

n26 (Mem):

predecessors

n27 0

n22 0

n29 (Shift):

successors

n20 0

predecessors

n32 0

n28 (Mem):

successors

n41 0

predecessors

n24 0

n17 0

n70 (Sub):

successors

n55 0

n72 (Mem):

predecessors

n59 0

n22 0

n71 (Mem):

predecessors

n10 0

n22 0

n30 (Other):

successors

n51 0

predecessors

n31 0

n74 (Sub):

successors

n18 0

n73 (Mem):

predecessors

n7 0

n22 0

n32 (Mem):

successors

n29 0

predecessors

n17 0

n55 0

n76 (Add):

n31 (Shift):

successors

n30 0

predecessors

n61 0

n75 (Mem):

predecessors

n47 0

n22 0

n34 (Other):

successors

n57 0

predecessors

n35 0

n33 (Mem):

predecessors

n9 0

n22 0

n77 (Cmp):

n36 (And):

successors

n35 0

predecessors

n37 0

n35 (Mem):

successors

n34 0

predecessors

n36 0

n17 0

n38 (Other):

successors

n50 0

predecessors

n39 0

n37 (Sub):

successors

n36 0

n39 (Shift):

successors

n38 0

predecessors

n64 0

n41 (Shift):

successors

n40 0

predecessors

n28 0

n40 (Other):

successors

n5 0

predecessors

n41 0

n43 (And):

successors

n62 0

predecessors

n44 0

n42 (Mem):

successors

n23 0

predecessors

n19 0

n45 (And):

successors

n64 0

predecessors

n46 0

n44 (Other):

successors

n43 0

predecessors

n14 0

n47 (Or):

successors

n59 0

n75 0

predecessors

n48 0

n23 0

n46 (Sub):

successors

n45 0

n49 (Mem):

successors

n53 0

predecessors

n50 0

n48 (Mem):

successors

n47 0

predecessors

n54 0

Nr of Nodes : 78

ASAP

Found schedule of length 19

n70 : [0:0]

n60 : [0:1]

n74 : [0:0]

n76 : [0:0]

n22 : [0:1]

n66 : [0:0]

n77 : [0:0]

n25 : [0:0]

n13 : [0:0]

n68 : [0:0]

n46 : [0:0]

n37 : [0:0]

n17 : [0:1]

n36 : [1:1]

n24 : [1:1]

n18 : [1:1]

n65 : [1:1]

n12 : [1:1]

n67 : [1:1]

n45 : [1:1]

n55 : [1:1]

n35 : [2:3]

n16 : [2:3]

n15 : [2:3]

n28 : [2:3]

n3 : [2:3]

n61 : [2:3]

n10 : [2:3]

n32 : [2:3]

n64 : [2:3]

n14 : [4:4]

n1 : [4:4]

n2 : [4:4]

n29 : [4:4]

n39 : [4:4]

n71 : [4:5]

n41 : [4:4]

n31 : [4:4]

n34 : [4:4]

n57 : [5:5]

n0 : [5:5]

n38 : [5:5]

n63 : [5:5]

n30 : [5:5]

n40 : [5:5]

n20 : [5:5]

n44 : [5:5]

n58 : [6:6]

n5 : [6:6]

n19 : [6:6]

n50 : [6:6]

n8 : [6:7]

n51 : [6:6]

n54 : [6:6]

n43 : [6:6]

n69 : [7:8]

n49 : [7:8]

n48 : [7:8]

n4 : [7:8]

n62 : [7:8]

n42 : [7:8]

n11 : [7:8]

n9 : [9:9]

n23 : [10:10]

n33 : [10:11]

n47 : [11:11]

n21 : [11:12]

n59 : [12:12]

n75 : [12:13]

n72 : [13:14]

n53 : [13:13]

n27 : [14:14]

n52 : [14:15]

n26 : [15:16]

n7 : [15:15]

n6 : [16:16]

n73 : [16:17]

n56 : [17:18]

Registered resources

SH 4 14.0

AND 1 16.0

AND 6 14.0

AND 5 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

ADD 0 1.0

CMP 0 2.1

MEM 3 81.0

MEM 2 81.0

MEM 7 72.0

MEM 8 63.0

MEM 1 27.0

MEM 0 27.0

MEM 17 18.0

MEM 16 18.0

MEM 15 18.0

MEM 14 18.0

MEM 13 18.0

MEM 12 18.0

MEM 11 18.0

MEM 18 9.0

MEM 10 9.0

MEM 6 9.0

MEM 5 9.0

MEM 4 9.0

OTHER 5 7.0

OTHER 4 1.0

SUB 0 11.2

cost = 134.29999999999998

ALAP

Found schedule of length 19

n13 : [0:0]

n17 : [0:1]

n70 : [1:1]

n12 : [1:1]

n3 : [2:3]

n74 : [2:2]

n55 : [2:2]

n25 : [3:3]

n18 : [3:3]

n32 : [3:4]

n24 : [4:4]

n46 : [4:4]

n16 : [4:5]

n2 : [4:4]

n68 : [5:5]

n29 : [5:5]

n28 : [5:6]

n60 : [5:6]

n63 : [5:5]

n45 : [5:5]

n58 : [6:6]

n1 : [6:6]

n64 : [6:7]

n20 : [6:6]

n67 : [6:6]

n66 : [6:6]

n0 : [7:7]

n15 : [7:8]

n19 : [7:7]

n41 : [7:7]

n65 : [7:7]

n10 : [7:8]

n11 : [7:8]

n37 : [8:8]

n39 : [8:8]

n61 : [8:9]

n40 : [8:8]

n54 : [8:8]

n42 : [8:9]

n36 : [9:9]

n14 : [9:9]

n38 : [9:9]

n48 : [9:10]

n5 : [9:9]

n9 : [9:9]

n35 : [10:11]

n4 : [10:11]

n50 : [10:10]

n31 : [10:10]

n23 : [10:10]

n44 : [10:10]

n47 : [11:11]

n49 : [11:12]

n30 : [11:11]

n43 : [11:11]

n59 : [12:12]

n51 : [12:12]

n62 : [12:13]

n34 : [12:12]

n69 : [13:14]

n57 : [13:13]

n53 : [13:13]

n27 : [14:14]

n8 : [14:15]

n7 : [15:15]

n22 : [15:16]

n6 : [16:16]

n26 : [17:18]

n72 : [17:18]

n71 : [17:18]

n52 : [17:18]

n73 : [17:18]

n21 : [17:18]

n75 : [17:18]

n56 : [17:18]

n33 : [17:18]

n76 : [18:18]

n77 : [18:18]

Registered resources

SH 10 2.0

SH 9 2.0

SH 8 2.0

SH 7 2.0

SH 6 2.0

SH 5 2.0

SH 4 2.0

OR 16 2.0

OR 15 2.0

OR 14 2.0

OR 13 2.0

OR 12 2.0

OR 11 2.0

OR 10 2.0

OR 9 2.0

AND 9 4.0

AND 7 4.0

AND 6 4.0

AND 13 2.0

AND 12 2.0

AND 11 2.0

AND 10 2.0

AND 8 2.0

AND 5 2.0

AND 4 2.0

AND 3 2.0

AND 2 2.0

AND 1 2.0

ADD 18 1.0

CMP 18 2.1

MEM 18 81.0

MEM 17 81.0

MEM 8 45.0

MEM 7 36.0

MEM 11 27.0

MEM 10 27.0

MEM 9 27.0

MEM 6 27.0

MEM 5 27.0

MEM 15 18.0

MEM 14 18.0

MEM 13 18.0

MEM 12 18.0

MEM 4 18.0

MEM 3 18.0

MEM 16 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

OTHER 12 1.0

OTHER 11 1.0

OTHER 10 1.0

OTHER 9 1.0

OTHER 8 1.0

OTHER 7 1.0

OTHER 6 1.0

OTHER 5 1.0

SUB 8 1.4

SUB 6 1.4

SUB 5 1.4

SUB 4 1.4

SUB 3 1.4

SUB 2 1.4

SUB 1 1.4

SUB 0 1.4

cost = 94.5

# XTEAEngine-encryptBlock-21-142

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51318:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/XTEAEngine-encryptBlock-21-142.dot

Scheduling scheduler-framework-master/graphs/XTEAEngine-encryptBlock-21-142.dot

n0 (Or):

successors

n14 0

predecessors

n1 0

n2 0

n1 (Add):

successors

n0 0

predecessors

n7 0

n21 0

n2 (Mem):

successors

n0 0

predecessors

n13 0

n22 0

n3 (Add):

successors

n15 0

predecessors

n4 0

n5 0

n4 (Or):

successors

n3 0

predecessors

n8 0

n9 0

n5 (Add):

successors

n14 0

n3 0

n8 0

n9 0

predecessors

n11 0

n6 (Shift):

successors

n21 0

predecessors

n7 0

n7 (Add):

successors

n25 0

n1 0

n6 0

n10 0

predecessors

n15 0

n8 (Shift):

successors

n4 0

predecessors

n5 0

n30 (Mem):

successors

n16 0

n29 0

n9 (Shift):

successors

n4 0

predecessors

n5 0

n10 (Shift):

successors

n21 0

predecessors

n7 0

n32 (Add):

predecessors

n13 0

n31 (Mem):

successors

n11 0

predecessors

n22 0

n12 (Cmp):

predecessors

n13 0

n11 (Or):

successors

n5 0

predecessors

n27 0

n31 0

n33 (Cmp):

n14 (Add):

successors

n24 0

n17 0

n28 0

predecessors

n0 0

n5 0

n13 (Add):

successors

n2 0

n29 0

n32 0

n12 0

n16 (Mem):

successors

n15 0

predecessors

n30 0

n15 (Or):

successors

n7 0

predecessors

n16 0

n3 0

n18 (Or):

successors

n27 0

predecessors

n19 0

n20 0

n17 (Shift):

successors

n23 0

predecessors

n14 0

n19 (Shift):

successors

n18 0

n21 (Or):

successors

n1 0

predecessors

n6 0

n10 0

n20 (Shift):

successors

n18 0

n23 (Or):

successors

n28 0

predecessors

n24 0

n17 0

n22 (Mem):

successors

n2 0

n31 0

n25 (Add):

predecessors

n26 0

n7 0

n24 (Shift):

successors

n23 0

predecessors

n14 0

n27 (Add):

successors

n11 0

predecessors

n18 0

n26 (Or):

successors

n25 0

predecessors

n29 0

n28 0

n29 (Mem):

successors

n26 0

predecessors

n13 0

n30 0

n28 (Add):

successors

n26 0

predecessors

n14 0

n23 0

Nr of Nodes : 34

ASAP

Found schedule of length 21

n13 : [0:0]

n19 : [0:0]

n30 : [0:1]

n20 : [0:0]

n33 : [0:0]

n22 : [0:1]

n18 : [1:1]

n32 : [1:1]

n12 : [1:1]

n16 : [2:3]

n27 : [2:2]

n29 : [2:3]

n2 : [2:3]

n31 : [2:3]

n11 : [4:4]

n5 : [5:5]

n8 : [6:6]

n9 : [6:6]

n4 : [7:7]

n3 : [8:8]

n15 : [9:9]

n7 : [10:10]

n6 : [11:11]

n10 : [11:11]

n21 : [12:12]

n1 : [13:13]

n0 : [14:14]

n14 : [15:15]

n24 : [16:16]

n17 : [16:16]

n23 : [17:17]

n28 : [18:18]

n26 : [19:19]

n25 : [20:20]

Registered resources

OR 19 2.0

OR 17 2.0

OR 14 2.0

OR 12 2.0

OR 9 2.0

OR 7 2.0

OR 4 2.0

OR 1 2.0

MEM 3 36.0

MEM 2 36.0

MEM 1 18.0

MEM 0 18.0

CMP 1 2.1

CMP 0 2.1

SH 16 4.0

SH 11 4.0

SH 6 4.0

SH 0 4.0

ADD 20 1.0

ADD 18 1.0

ADD 15 1.0

ADD 13 1.0

ADD 10 1.0

ADD 8 1.0

ADD 5 1.0

ADD 2 1.0

ADD 1 1.0

ADD 0 1.0

cost = 45.1

ALAP

Found schedule of length 21

n22 : [0:1]

n19 : [1:1]

n20 : [1:1]

n18 : [2:2]

n31 : [2:3]

n27 : [3:3]

n11 : [4:4]

n5 : [5:5]

n30 : [5:6]

n8 : [6:6]

n9 : [6:6]

n16 : [7:8]

n4 : [7:7]

n3 : [8:8]

n15 : [9:9]

n7 : [10:10]

n13 : [11:11]

n6 : [11:11]

n10 : [11:11]

n2 : [12:13]

n21 : [12:12]

n1 : [13:13]

n0 : [14:14]

n14 : [15:15]

n24 : [16:16]

n17 : [16:16]

n29 : [17:18]

n23 : [17:17]

n28 : [18:18]

n26 : [19:19]

n25 : [20:20]

n32 : [20:20]

n12 : [20:20]

n33 : [20:20]

Registered resources

OR 19 2.0

OR 17 2.0

OR 14 2.0

OR 12 2.0

OR 9 2.0

OR 7 2.0

OR 4 2.0

OR 2 2.0

CMP 20 4.2

MEM 18 9.0

MEM 17 9.0

MEM 13 9.0

MEM 12 9.0

MEM 8 9.0

MEM 7 9.0

MEM 6 9.0

MEM 5 9.0

MEM 3 9.0

MEM 2 9.0

MEM 1 9.0

MEM 0 9.0

SH 16 4.0

SH 11 4.0

SH 6 4.0

SH 1 4.0

ADD 20 2.0

ADD 18 1.0

ADD 15 1.0

ADD 13 1.0

ADD 11 1.0

ADD 10 1.0

ADD 8 1.0

ADD 5 1.0

ADD 3 1.0

cost = 21.2

# XTEAEngine-setKey-4-123

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51332:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/XTEAEngine-setKey-4-123.dot

Scheduling scheduler-framework-master/graphs/XTEAEngine-setKey-4-123.dot

n0 (And):

successors

n9 0

predecessors

n1 0

n1 (Mem):

successors

n0 0

predecessors

n31 0

n2 (And):

successors

n14 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

predecessors

n36 0

n4 (Mem):

successors

n8 0

predecessors

n5 0

n5 (Add):

successors

n36 0

n35 0

n4 0

n6 0

n31 0

n6 (Add):

successors

n10 0

predecessors

n5 0

n7 (Or):

successors

n27 0

predecessors

n8 0

n9 0

n8 (Shift):

successors

n7 0

predecessors

n4 0

n30 (Add):

successors

n24 0

n9 (Shift):

successors

n7 0

predecessors

n0 0

n10 (Mem):

successors

n15 0

predecessors

n6 0

n32 (Shift):

successors

n19 0

predecessors

n21 0

n31 (Add):

successors

n1 0

predecessors

n5 0

n12 (Add):

successors

n39 0

n11 0

n33 0

n34 (Mem):

successors

n38 0

n33 0

n11 (Add):

predecessors

n12 0

n33 (Mem):

predecessors

n27 0

n34 0

n12 0

n14 (Shift):

successors

n13 0

predecessors

n2 0

n36 (Add):

successors

n3 0

predecessors

n5 0

n13 (Or):

successors

n27 0

predecessors

n14 0

n15 0

n35 (Add):

predecessors

n5 0

n16 (Shift):

successors

n19 0

predecessors

n17 0

n38 (Mem):

predecessors

n18 0

n34 0

n15 (And):

successors

n13 0

predecessors

n10 0

n37 (Add):

successors

n22 0

n18 (Or):

successors

n38 0

predecessors

n19 0

n20 0

n17 (Mem):

successors

n16 0

n39 (Cmp):

predecessors

n12 0

n19 (Or):

successors

n18 0

predecessors

n16 0

n32 0

n40 (Cmp):

n21 (And):

successors

n32 0

predecessors

n22 0

n20 (Or):

successors

n18 0

predecessors

n29 0

n23 0

n23 (And):

successors

n20 0

predecessors

n24 0

n22 (Mem):

successors

n21 0

predecessors

n37 0

n25 (And):

successors

n29 0

predecessors

n26 0

n24 (Mem):

successors

n23 0

predecessors

n30 0

n27 (Or):

successors

n33 0

predecessors

n13 0

n7 0

n26 (Mem):

successors

n25 0

predecessors

n28 0

n29 (Shift):

successors

n20 0

predecessors

n25 0

n28 (Add):

successors

n26 0

Nr of Nodes : 41

ASAP

Found schedule of length 10

n37 : [0:0]

n17 : [0:1]

n28 : [0:0]

n5 : [0:0]

n30 : [0:0]

n40 : [0:0]

n12 : [0:0]

n34 : [0:1]

n36 : [1:1]

n35 : [1:1]

n24 : [1:2]

n26 : [1:2]

n39 : [1:1]

n4 : [1:2]

n6 : [1:1]

n31 : [1:1]

n22 : [1:2]

n11 : [1:1]

n16 : [2:2]

n1 : [2:3]

n3 : [2:3]

n10 : [2:3]

n25 : [3:3]

n8 : [3:3]

n21 : [3:3]

n23 : [3:3]

n0 : [4:4]

n15 : [4:4]

n29 : [4:4]

n2 : [4:4]

n32 : [4:4]

n14 : [5:5]

n19 : [5:5]

n9 : [5:5]

n20 : [5:5]

n13 : [6:6]

n18 : [6:6]

n7 : [6:6]

n38 : [7:8]

n27 : [7:7]

n33 : [8:9]

Registered resources

OR 6 6.0

OR 5 4.0

OR 7 2.0

AND 4 6.0

AND 3 6.0

CMP 1 2.1

CMP 0 2.1

SH 5 4.0

SH 4 4.0

SH 3 2.0

SH 2 2.0

MEM 2 63.0

MEM 1 54.0

MEM 3 27.0

MEM 8 18.0

MEM 0 18.0

MEM 9 9.0

MEM 7 9.0

ADD 1 5.0

ADD 0 5.0

cost = 86.1

ALAP

Found schedule of length 10

n5 : [0:0]

n36 : [1:1]

n37 : [1:1]

n28 : [1:1]

n31 : [1:1]

n26 : [2:3]

n1 : [2:3]

n3 : [2:3]

n6 : [2:2]

n30 : [2:2]

n22 : [2:3]

n24 : [3:4]

n17 : [3:4]

n4 : [3:4]

n10 : [3:4]

n25 : [4:4]

n0 : [4:4]

n2 : [4:4]

n21 : [4:4]

n14 : [5:5]

n16 : [5:5]

n15 : [5:5]

n29 : [5:5]

n8 : [5:5]

n9 : [5:5]

n32 : [5:5]

n23 : [5:5]

n13 : [6:6]

n19 : [6:6]

n7 : [6:6]

n20 : [6:6]

n34 : [6:7]

n27 : [7:7]

n18 : [7:7]

n12 : [7:7]

n38 : [8:9]

n33 : [8:9]

n35 : [9:9]

n39 : [9:9]

n40 : [9:9]

n11 : [9:9]

Registered resources

OR 6 8.0

OR 7 4.0

AND 4 8.0

AND 5 4.0

CMP 9 4.2

SH 5 12.0

MEM 3 72.0

MEM 4 36.0

MEM 2 36.0

MEM 9 18.0

MEM 8 18.0

MEM 7 9.0

MEM 6 9.0

ADD 1 4.0

ADD 9 2.0

ADD 2 2.0

ADD 7 1.0

ADD 0 1.0

cost = 108.2

# XTEAEngine-setKey-70-169

"C:\Program Files\Microsoft\jdk-11.0.12.7-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea\_rt.jar=51348:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\sobuh\OneDrive\00000000000000000. MASTERSTUDIUM TU DARMSTADT\High Level Synthese\Mini-Task-1\scheduler-framework-master\SDC\out\production\test1" scheduler.Main scheduler-framework-master/graphs/XTEAEngine-setKey-70-169.dot

Scheduling scheduler-framework-master/graphs/XTEAEngine-setKey-70-169.dot

n0 (Cmp):

predecessors

n1 0

n1 (Add):

successors

n25 0

n24 0

n0 0

n10 0

n2 (Add):

successors

n18 0

predecessors

n3 0

n3 (Mem):

successors

n2 0

predecessors

n12 0

n22 0

n4 (Add):

successors

n10 0

predecessors

n5 0

n6 0

n5 (Sub):

successors

n17 0

n4 0

predecessors

n14 0

n6 (Mem):

successors

n4 0

predecessors

n16 0

n12 0

n7 (Mem):

predecessors

n8 0

n9 0

n8 (Mem):

successors

n7 0

n10 0

n9 (Add):

successors

n7 0

predecessors

n14 0

n11 0

n10 (Mem):

predecessors

n1 0

n4 0

n8 0

n12 (Mem):

successors

n3 0

n6 0

n21 0

n11 0

n11 (Mem):

successors

n9 0

predecessors

n13 0

n12 0

n14 (Sub):

successors

n15 0

n5 0

n9 0

n20 0

n23 0

n13 (And):

successors

n11 0

predecessors

n23 0

n16 (And):

successors

n6 0

predecessors

n17 0

n15 (And):

successors

n21 0

predecessors

n14 0

n18 (Mem):

predecessors

n2 0

n19 0

n17 (Shift):

successors

n16 0

predecessors

n5 0

n19 (Mem):

successors

n25 0

n18 0

n21 (Mem):

successors

n20 0

predecessors

n15 0

n12 0

n20 (Add):

successors

n25 0

predecessors

n14 0

n21 0

n23 (Shift):

successors

n13 0

predecessors

n14 0

n22 (And):

successors

n3 0

n25 (Mem):

predecessors

n1 0

n19 0

n20 0

n24 (Add):

predecessors

n1 0

n26 (Cmp):

Nr of Nodes : 27

ASAP

Found schedule of length 9

n14 : [0:0]

n1 : [0:0]

n26 : [0:0]

n19 : [0:1]

n8 : [0:1]

n12 : [0:1]

n22 : [0:0]

n24 : [1:1]

n0 : [1:1]

n15 : [1:1]

n5 : [1:1]

n23 : [1:1]

n13 : [2:2]

n3 : [2:3]

n17 : [2:2]

n21 : [2:3]

n16 : [3:3]

n11 : [3:4]

n2 : [4:4]

n6 : [4:5]

n20 : [4:4]

n25 : [5:6]

n18 : [5:6]

n9 : [5:5]

n4 : [6:6]

n7 : [6:7]

n10 : [7:8]

Registered resources

SH 2 2.0

SH 1 2.0

AND 3 2.0

AND 2 2.0

AND 1 2.0

AND 0 2.0

CMP 1 2.1

CMP 0 2.1

MEM 6 27.0

MEM 5 27.0

MEM 3 27.0

MEM 1 27.0

MEM 0 27.0

MEM 7 18.0

MEM 4 18.0

MEM 2 18.0

MEM 8 9.0

ADD 4 2.0

ADD 6 1.0

ADD 5 1.0

ADD 1 1.0

ADD 0 1.0

SUB 1 1.4

SUB 0 1.4

cost = 36.5

ALAP

Found schedule of length 9

n14 : [0:0]

n5 : [1:1]

n17 : [2:2]

n12 : [2:3]

n23 : [2:2]

n13 : [3:3]

n16 : [3:3]

n15 : [3:3]

n22 : [3:3]

n3 : [4:5]

n6 : [4:5]

n21 : [4:5]

n11 : [4:5]

n19 : [5:6]

n8 : [5:6]

n1 : [6:6]

n2 : [6:6]

n4 : [6:6]

n9 : [6:6]

n20 : [6:6]

n25 : [7:8]

n18 : [7:8]

n7 : [7:8]

n10 : [7:8]

n24 : [8:8]

n0 : [8:8]

n26 : [8:8]

Registered resources

SH 2 4.0

AND 3 8.0

MEM 5 54.0

MEM 8 36.0

MEM 7 36.0

MEM 4 36.0

MEM 6 18.0

MEM 3 9.0

MEM 2 9.0

CMP 8 4.2

ADD 6 5.0

ADD 8 1.0

SUB 1 1.4

SUB 0 1.4

cost = 76.60000000000001