**Metrics for net Petri net**

**Density metric**

0.04392764857881137

**Details**

|F| = 136

|P X T| = 1548

**Extended Cardoso metric**

60.0

**Details**

Place source 1 = 2

Place sink 2 = 0

Place sink 3 = 1

Place source 4 = 1

Place sink 5 = 1

Place notDoneFirst 6 = 2

Place doneFirst 7 = 5

Place childSource 8 = 2

Place childSink 9 = 1

Place doChild 10 = 2

Place middle 11 = 2

Place replacement source 12 = 1

Place notDoneFirst 13 = 2

Place doneFirst 14 = 5

Place childSource 15 = 2

Place childSink 16 = 1

Place doChild 17 = 1

Place sink 18 = 1

Place childSource 19 = 2

Place childSink 20 = 1

Place doChild 21 = 1

Place childSource 22 = 2

Place childSink 23 = 1

Place doChild 24 = 1

Place source 25 = 1

Place sink 26 = 1

Place middle 27 = 2

Place replacement source 28 = 1

Place notDoneFirst 29 = 2

Place doneFirst 30 = 5

Place childSource 31 = 2

Place childSink 32 = 1

Place doChild 33 = 1

Place childSource 34 = 2

Place childSink 35 = 1

Place doChild 36 = 1

Metric = 60

**Extended Cyclomatic metric**

367.0

**Details**

|E| = 383

|V| = 120

p = 104

**Number of arcs**

136.0

**Details**

**Number of places**

36.0

**Details**

**Number of transitions**

43.0

**Details**

**Structuredness metric**

43740.0

**Details**

CHOICE Queued

Removed transition Accepted

Sum = 2.0

Metric = 3.0

CHOICE Accepted

Removed transition Completed

Sum = 2.0

Metric = 3.0

SEQUENCE sink 18

Removed place sink 18

Added arc from Accepted to childSink 16

Removed transition Accepted

Sum = 4.0

Metric = 4.0

UNSTRUCTURED replacement source 28 -> middle 27

Out transition tau firstDoChild

In transition tau firstDoChild

Out transition tau skipChild

In transition tau skipChild

In place replacement source 28

Out place notDoneFirst 29

In transition tau finish

In place childSink 32

In place doChild 36

Out place doneFirst 30

In place doneFirst 30

Out transition tau laterDoChild

In transition tau laterDoChild

Out transition tau skipChild

In transition tau skipChild

In place childSink 35

Out transition tau firstDoChild

In transition tau firstDoChild

Out place childSource 31

In place doChild 33

Out transition tau start

Out place middle 27

Out transition tau laterDoChild

In transition tau laterDoChild

Out place childSource 34

|F| = 36

|P U T| = 20

Sum = 850.0

DiffP = 2

DiffT = 1

Added arc from tau start to middle 27

Removed transition tau firstDoChild

Removed transition tau skipChild

Removed transition Completed

Removed place notDoneFirst 29

Removed transition tau finish

Removed place childSink 32

Removed place doChild 36

Removed place doneFirst 30

Removed transition tau laterDoChild

Removed transition tau skipChild

Removed place childSink 35

Removed transition tau firstDoChild

Removed transition Accepted

Removed place childSource 31

Removed place doChild 33

Removed transition tau laterDoChild

Removed place childSource 34

Metric = 1700.0

UNSTRUCTURED source 4 -> sink 5

Out transition tau skipChild

In transition tau skipChild

In place childSink 23

In place doChild 21

Out place childSource 19

Out transition tau skipChild

In transition tau skipChild

In place childSink 16

In place doChild 17

Out place doneFirst 14

In place doneFirst 14

Out place notDoneFirst 13

Out place childSource 15

In place replacement source 12

Out place childSource 8

Out transition tau firstDoChild

In transition tau firstDoChild

Out place doneFirst 7

In place doneFirst 7

Out transition tau laterDoChild

In transition tau laterDoChild

Out place doChild 10

In place doChild 10

Out transition tau start

Out transition tau laterDoChild

In transition tau laterDoChild

In place childSink 20

Out place childSource 22

Out transition tau skipChild

In transition tau skipChild

Out transition tau start

Out transition tau skipChild

In transition tau skipChild

Out transition tau laterDoChild

In transition tau laterDoChild

Out transition tau firstDoChild

In transition tau firstDoChild

Out place notDoneFirst 6

Out transition tau laterDoChild

In transition tau laterDoChild

Out place middle 11

In transition tau finish

In transition tau finish

Out transition tau firstDoChild

In transition tau firstDoChild

Out transition tau firstDoChild

In transition tau firstDoChild

In place childSink 9

In place doChild 24

|F| = 78

|P U T| = 43

Sum = 5040.0

DiffP = 2

DiffT = 1

Added arc from tau start to sink 5

Removed transition tau skipChild

Removed place childSink 23

Removed place doChild 21

Removed place childSource 19

Removed transition tau start

Removed transition tau skipChild

Removed place childSink 16

Removed transition tau from tree

Removed place doChild 17

Removed place doneFirst 14

Removed place notDoneFirst 13

Removed place childSource 15

Removed place replacement source 12

Removed place childSource 8

Removed transition tau firstDoChild

Removed transition Queued

Removed place doneFirst 7

Removed transition Accepted

Removed transition tau laterDoChild

Removed place doChild 10

Removed transition tau from tree

Removed transition tau laterDoChild

Removed place childSink 20

Removed place childSource 22

Removed transition tau skipChild

Removed transition tau start

Removed transition tau skipChild

Removed transition Queued

Removed transition tau laterDoChild

Removed transition tau firstDoChild

Removed place notDoneFirst 6

Removed transition tau laterDoChild

Removed transition Accepted

Removed place middle 11

Removed transition tau finish

Removed transition tau finish

Removed transition tau firstDoChild

Removed transition tau firstDoChild

Removed place childSink 9

Removed place doChild 24

Metric = 10080.0

MARKED GRAPH tau split -> tau join

Sum = 20166.0

DiffT = 1

Added arc from tau split to sink 3

Removed place sink 5

Removed transition tau join

Removed place source 4

Removed place source 25

Removed place sink 26

Removed transition Accepted

Removed transition tau start

Metric = 20166.0

STATE MACHINE source 1 -> sink 2

Sum = 43740.0

DiffP = 1

Added arc from tau split to sink 2

Removed transition tau from tree

Removed transition tau from tree

Removed place replacement source 28

Removed place sink 3

Removed transition tau start

Removed place middle 27

Removed transition tau start

Removed transition Completed

Metric = 43740.0