

DIGITAL ACCESS CONTROL

COURSE: CSE 225



NAME: KARIM WALID ELHAMMADY

ID: 16P3090

PROGRAM: CESS

EMAIL: KARIM.ELHAMMADY629@GMAIL.COM

**A screenshot of a computer

Description automatically generatedPlacement**

A screenshot of a computer

Description automatically generated

**Routing**

A screenshot of a computer

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A screenshot of a computer

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**Final cif layout**

A screenshot of a computer

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A screenshot of a computer

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**Floorplan**

**A close up of text on a white background

Description automatically generated**

**MakeFile**

#-------Sdet--------------------------------------------#

all: sdeta.vbe \

sdetj.vbe \

sdetm.vbe \

sdeto.vbe \

sdetr.vbe

     @echo "<-- Generated"

#-------Finite State Machine Synthesis-----------------#

vhd\_to\_fsm:

    rename .vhd .fsm \*.vhd

sdeta.vbe: sdet.fsm

    @echo " Encoding Synthesis -> sdeta.vbe"

    syf -CEV -a sdet

sdetj.vbe: sdet.fsm

    @echo " Encoding Synthesis -> sdetj.vbe"

    syf -CEV -j sdet

sdetm.vbe: sdet.fsm

    @echo " Encoding Synthesis -> sdetm.vbe"

    syf -CEV -m sdet

sdeto.vbe: sdet.fsm

    @echo " Encoding Synthesis -> sdeto.vbe"

    syf -CEV -o sdet

sdetr.vbe: sdet.fsm

    @echo " Encoding Synthesis -> sdetr.vbe"

    syf -CEV -r sdet

#-------Clean Up---------------------------------------#

clean :

    rm -f \*.vbe \*.enc \*~

    @echo "Erase all the files generated by the makefile"

#-------BOOM-------------------------------------------#

sdet\_boom: sdeta\_b.vbe sdetj\_b.vbe sdetm\_b.vbe sdeto\_b.vbe sdetr\_b.vbe

%\_b.vbe: %.vbe

    @echo " Boolean Optimization -> $@"

    boom -V -d 50 $\* $\*\_b > $\*\_boom.out

#-------BOOG-------------------------------------------#

sdet\_boog: sdeta\_b.vst sdetj\_b.vst sdetm\_b.vst sdeto\_b.vst sdetr\_b.vst

%.vst: %.vbe paramfile.lax

    @echo " Logical Synthesis -> $@"

    boog -x 1 -l paramfile $\* > $\*\_boog.out

#-------LOON------------------------------------------#

sdet\_loon: sdeta\_b\_l.vst sdetj\_b\_l.vst sdetm\_b\_l.vst sdeto\_b\_l.vst sdetr\_b\_l.vst

%\_l.vst: %.vst paramfile.lax

    @echo " Netlist Optimization -> $@"

    loon -x 1 $\* $\*\_l paramfile > $\*\_loon.out

#-------Flatbeh&Proof---------------------------------#

%\_b\_l\_net.vbe: %\_b\_l.vst %.vbe

    @echo " Formal checking -> $@"

    flatbeh $\*\_b\_l $\*\_b\_l\_net > $\*\_flatbeh.out

    proof -d $\* $\*\_b\_l\_net > $\*\_proof.out

#-------scapin---------------------------------------#

ac\_scapin\_registers:

    cat sdetj\_b\_l.vst | grep sff

%\_scan.vst: %.vst scan.path

    @echo " scan-path insertion -> $@"

    scapin -VRB $\* scan $\*\_scan > scapin.out

#---------------------- ocp------------------------#

sdet\_p\_ap.ap : sdet.ioc sdetj\_b\_l\_scan.vst

    MBK\_IN\_LO=vst; export MBK\_IN\_LO;\

    MBK\_OUT\_PH=ap; export MBK\_OUT\_PH;\

    ocp -v -ring -ioc sdet sdetj\_b\_l\_scan sdet\_p > ocp.out

#----------------------- nero------------------#

nero.ap: sdet\_p.ap sdetj\_b\_l\_scan.vst

    nero -V -p sdet\_p sdetj\_b\_l\_scan sdetj\_b\_l\_scan > nero.out

#---------------------- ivx & cougar --------- #

%.al : %.ap

    MBK\_OUT\_LO=al; export MBK\_OUT\_LO;\

    RDS\_TECHNO\_NAME=./techno/techno-035.rds;\

    export RDS\_TECHNO\_NAME;\

    cougar -v $\* > cougar\_$\*.out

    lvx vst al $\* $\* -f > lvx\_$\*.out

#----------------- druc--------------------#

druc\_core : sdetj\_b\_l\_scan.ap

    RDS\_TECHNO\_NAME=./techno/techno-symb.rds;\

    export RDS\_TECHNO\_NAME;\

    druc sdetj\_b\_l\_scan > druc\_core.out

#------------- s2r------------------------#

sdet\_chip.cif : sdetj\_b\_l\_scan.ap

    RDS\_TECHNO\_NAME=./techno/techno-035.rds;\

    export RDS\_TECHNO\_NAME;\

    RDS\_OUT=cif; export RDS\_OUT;\

    s2r -v -r sdetj\_b\_l\_scan > s2r.out

**IOS file**

LEFT ( # IOs from bottom to top

(IOPIN scanin.0 );

(IOPIN day\_time.0 );

(IOPIN code(0).0 );

)

TOP ( # IOs from left to right

(IOPIN code(1).0 );

(IOPIN code(2).0 );

(IOPIN code(3).0 );

)

RIGHT( # IOs from bottom to top

(IOPIN test.0 );

(IOPIN reset.0 );

)

BOTTOM ( # IOs from left to right

(IOPIN door.0 );

(IOPIN clk.0 );

(IOPIN alarm.0 );

(IOPIN scanout.0 ); )

**OCP output**

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Placer for Standards Cells

Alliance CAD System 5.0 20090901, ocp 5.0

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E-mail : alliance-users@asim.lip6.fr

o ALLIANCE environment:

o ALLIANCE\_TOP : /usr/lib64/alliance

o MBK environment:

o MBK\_IN\_LO : vst

o MBK\_OUT\_LO : vst

o MBK\_IN\_PH : ap

o MBK\_OUT\_PH : ap

o MBK\_VSS : vss

o MBK\_VDD : vdd

o MBK\_CATAL\_NAME : CATAL

o MBK\_CATA\_LIB : .

/usr/lib64/alliance/cells/sxlib

/usr/lib64/alliance/cells/dp\_sxlib

/usr/lib64/alliance/cells/rflib

/usr/lib64/alliance/cells/rf2lib

/usr/lib64/alliance/cells/ramlib

/usr/lib64/alliance/cells/romlib

/usr/lib64/alliance/cells/pxlib

/usr/lib64/alliance/cells/padlib

o Number total of instances is .... 40

o Number of instances to place is .... 40

o Number of instances already placed is .... 0

o Number of nets is .... 49

o Sum of instances to place widths is ... 237

o Computing Initial Placement ...

o User Margin : 20%

o Number of Rows : 5

o Real Margin : 16.8421%

o Width of the abutment box : 57

o Height of the abutment box : 50

o conspace : 19 1st connector : 9.5

o adding connector : code 1 x : 9 y : 50

o adding connector : code 2 x : 28 y : 50

o adding connector : code 3 x : 47 y : 50

o conspace : 14.25 1st connector : 7.125

o adding connector : door x : 7 y : 0

o adding connector : clk x : 21 y : 0

o adding connector : alarm x : 35 y : 0

o adding connector : scanout x : 49 y : 0

o adding connector : scanin x : 0 y : 8

o adding connector : day\_time x : 0 y : 25

o adding connector : code 0 x : 0 y : 42

o adding connector: test x : 57 y : 12

o adding connector: reset x : 57 y : 37

o Initial Placement Computing ... done.

o Beginning global placement ....

o Initial RowCost = 7.6

o Initial BinCost = 7.6

o Initial NetCost = 2515.5

o Initial Cost = 1

o Computing Initial Temperature ...

o bins size 237

o bins capa 237

o subrows capa 237

Loop = 1, Temperature = 0.170009, Cost = 0.983304

RowCost = 39.6, BinCost = 39.6, NetCost = 2473.5

Success Ratio = 98.3704%, Dist = 1, Delta = 0.5

o Total impossible movements = 737

o 0 % suroccupied target

o 34.8711 % source equal target

o 65.1289 % impossible exchange

Loop = 2, Temperature = 0.0850047, Cost = 0.913337

RowCost = 33.6, BinCost = 33.6, NetCost = 2297.5

Success Ratio = 97.1852%, Dist = 1, Delta = 0.5

o Total impossible movements = 1309

o 0 % suroccupied target

o 35.5997 % source equal target

o 64.4003 % impossible exchange

Loop = 3, Temperature = 0.0425024, Cost = 0.952693

RowCost = 41.6, BinCost = 41.6, NetCost = 2396.5

Success Ratio = 95.7037%, Dist = 1, Delta = 0.5

o Total impossible movements = 1890

o 0 % suroccupied target

o 36.455 % source equal target

o 63.545 % impossible exchange

Loop = 4, Temperature = 0.0212512, Cost = 0.937984

RowCost = 41.6, BinCost = 41.6, NetCost = 2359.5

Success Ratio = 85.7778%, Dist = 1, Delta = 0.5

o Total impossible movements = 2433

o 0 % suroccupied target

o 38.3066 % source equal target

o 61.6934 % impossible exchange

Loop = 5, Temperature = 0.0131729, Cost = 0.881932

RowCost = 39.6, BinCost = 39.6, NetCost = 2218.5

Success Ratio = 75.7037%, Dist = 1, Delta = 0.619866

o Total impossible movements = 2824

o 0 % suroccupied target

o 39.5184 % source equal target

o 60.4816 % impossible exchange

Loop = 6, Temperature = 0.00977391, Cost = 0.920493

RowCost = 39.6, BinCost = 39.6, NetCost = 2315.5

Success Ratio = 63.4074%, Dist = 1, Delta = 0.741971

o Total impossible movements = 3348

o 0 % suroccupied target

o 40.6511 % source equal target

o 59.3489 % impossible exchange

Loop = 7, Temperature = 0.00817084, Cost = 0.847346

RowCost = 45.6, BinCost = 45.6, NetCost = 2131.5

Success Ratio = 49.4815%, Dist = 1, Delta = 0.835985

o Total impossible movements = 3761

o 0 % suroccupied target

o 41.4252 % source equal target

o 58.5748 % impossible exchange

Loop = 8, Temperature = 0.0064054, Cost = 0.837011

RowCost = 31.6, BinCost = 31.6, NetCost = 2105.5

Success Ratio = 43.4074%, Dist = 0.994074, Delta = 0.783934

o Total impossible movements = 4204

o 0 % suroccupied target

o 41.8649 % source equal target

o 58.1351 % impossible exchange

Loop = 9, Temperature = 0.00510952, Cost = 0.791692

RowCost = 37.6, BinCost = 37.6, NetCost = 1991.5

Success Ratio = 37.6296%, Dist = 0.930748, Delta = 0.797689

o Total impossible movements = 4647

o 0 % suroccupied target

o 41.941 % source equal target

o 58.059 % impossible exchange

Loop = 10, Temperature = 0.00428651, Cost = 0.788909

RowCost = 47.6, BinCost = 47.6, NetCost = 1984.5

Success Ratio = 28.1481%, Dist = 0.783207, Delta = 0.838926

o Total impossible movements = 5210

o 0 % suroccupied target

o 42.2265 % source equal target

o 57.7735 % impossible exchange

Loop = 11, Temperature = 0.00345559, Cost = 0.774995

RowCost = 43.6, BinCost = 43.6, NetCost = 1949.5

Success Ratio = 20%, Dist = 0.595237, Delta = 0.806156

o Total impossible movements = 5641

o 0 % suroccupied target

o 42.6343 % source equal target

o 57.3657 % impossible exchange

Loop = 12, Temperature = 0.00282787, Cost = 0.771815

RowCost = 47.6, BinCost = 47.6, NetCost = 1941.5

Success Ratio = 20%, Dist = 0.45238, Delta = 0.818346

o Total impossible movements = 6152

o 0 % suroccupied target

o 42.8804 % source equal target

o 57.1196 % impossible exchange

Loop = 13, Temperature = 0.0023842, Cost = 0.733254

RowCost = 47.6, BinCost = 47.6, NetCost = 1844.5

Success Ratio = 12.4444%, Dist = 0.309629, Delta = 0.843106

o Total impossible movements = 6913

o 0 % suroccupied target

o 43.0927 % source equal target

o 56.9073 % impossible exchange

Loop = 14, Temperature = 0.00209423, Cost = 0.733254

RowCost = 47.6, BinCost = 47.6, NetCost = 1844.5

Success Ratio = 18.2222%, Dist = 0.229814, Delta = 0.878379

o Total impossible movements = 8137

o 0 % suroccupied target

o 44.9429 % source equal target

o 55.0571 % impossible exchange

Loop = 15, Temperature = 0.00175117, Cost = 0.753528

RowCost = 49.6, BinCost = 49.6, NetCost = 1895.5

Success Ratio = 12.5926%, Dist = 0.157635, Delta = 0.836188

o Total impossible movements = 9310

o 0 % suroccupied target

o 46.3373 % source equal target

o 53.6627 % impossible exchange

Loop = 16, Temperature = 0.00153732, Cost = 0.733254

RowCost = 49.6, BinCost = 49.6, NetCost = 1844.5

Success Ratio = 11.7037%, Dist = 0.106725, Delta = 0.877885

o Total impossible movements = 10854

o 0 % suroccupied target

o 47.3742 % source equal target

o 52.6258 % impossible exchange

o No More Mouvement Possible .....

o Global Placement finished .....

o Gain for RowCost = -552.632%

o Gain for BinCost = -552.632%

o Gain for NetCost = 26.6746%

o NetCost Estimated = 1844.5

o Movements Stats ?!

o 10840 Tried Moves

o 0.101476 % of accepted simple instance move

o 48.2011 % of accepted instance exchange

o 0.0645756 % of rejected simple instance move

o 51.6328 % of rejected instance exchange

o Impossible Movements Stats ....

o If you find these values interesting, call a doctor...

o Total impossible movements = 10927

o 0 % suroccupied target

o 47.616 % source equal target

o 52.384 % impossible exchange

o Final Optimization in process ...

o Net Cost before Final Optimization... 1955

o Final Optimization succeeded ...

o Final Net Cost ..... 1420.5

o Final Net Cost Optimization ..... 27.3402%

o Total Net Optimization .... 43.5301%

Ocp : placement finished

NO PREPLACEMENT GIVEN

o Destruction of DATABASE ....

**Nero output**

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Negotiating Router

Alliance CAD System 5.0 20090901, nero 5.0

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E-mail : alliance-users@asim.lip6.fr

S/N 20080611.1

o MBK environment :

MBK\_IN\_LO := vst

MBK\_OUT\_LO := vst

MBK\_IN\_PH := ap

MBK\_OUT\_PH := ap

MBK\_WORK\_LIB := .

MBK\_CATA\_LIB := .

/usr/lib64/alliance/cells/sxlib

/usr/lib64/alliance/cells/dp\_sxlib

/usr/lib64/alliance/cells/rflib

/usr/lib64/alliance/cells/rf2lib

/usr/lib64/alliance/cells/ramlib

/usr/lib64/alliance/cells/romlib

/usr/lib64/alliance/cells/pxlib

/usr/lib64/alliance/cells/padlib

MBK\_CATAL\_NAME := CATAL

MBK\_VDD := vdd

MBK\_VSS := vss

MBK\_SEPAR := .

o Loading netlist "sdetj\_b\_l\_scan"...

o Loading layout "sdet\_p"...

o Flattening layout...

o Flattening netlist...

o Building netlist dual representation (lofigchain)...

o Binding logical & physical views...

o Loading design into grid...

o Using seed cell "a2\_x2\_ins" (model "a2\_x2").

o Grid offset : (0,0) [adjust (0,0)]

o Small design, global routing disabled.

o Allocating grid size [58,51,3].

o Loading external terminals.

o Finding obstacles.

o Loading nets into grid.

o Allocating the net scheduler.

o Reading power grid.

o Local routing stage.

- [ 50] (hp := 0) "vdd"

- [ 49] (hp := 0) "vss"

- [ 48] (hp := 8) "na3\_x1\_7\_sig"

- [ 47] (hp := 10) "nao22\_x1\_sig"

- [ 46] (hp := 11) "door"

- [ 45] (hp := 11) "alarm"

- [ 44] (hp := 11) "aux4"

- [ 43] (hp := 12) "a4\_x2\_sig"

- [ 42] (hp := 13) "scanout"

- [ 41] (hp := 13) "na3\_x1\_5\_sig"

- [ 40] (hp := 13) "na2\_x1\_2\_sig"

- [ 39] (hp := 16) "o2\_x2\_sig"

- [ 38] (hp := 16) "o3\_x2\_sig"

- [ 37] (hp := 16) "na3\_x1\_2\_sig"

- [ 36] (hp := 16) "noa22\_x1\_sig"

- [ 35] (hp := 17) "no2\_x1\_2\_sig"

- [ 34] (hp := 17) "na3\_x1\_4\_sig"

- [ 33] (hp := 17) "not\_aux0"

- [ 32] (hp := 18) "scanin"

- [ 31] (hp := 18) "na2\_x1\_sig"

- [ 30] (hp := 20) "inv\_x2\_sig"

- [ 29] (hp := 21) "na3\_x1\_6\_sig"

- [ 28] (hp := 21) "na3\_x1\_3\_sig"

- [ 27] (hp := 21) "not\_aux3"

- [ 26] (hp := 23) "no2\_x1\_sig"

- [ 25] (hp := 23) "not\_fsm\_alarm\_cs 2"

- [ 24] (hp := 24) "no2\_x1\_3\_sig"

- [ 23] (hp := 24) "not\_code 2"

- [ 22] (hp := 25) "day\_time"

- [ 21] (hp := 32) "not\_fsm\_alarm\_cs 0"

- [ 20] (hp := 34) "not\_aux2"

- [ 19] (hp := 39) "not\_fsm\_alarm\_cs 1"

- [ 18] (hp := 39) "not\_code 1"

- [ 17] (hp := 43) "a2\_x2\_sig"

- [ 16] (hp := 44) "na3\_x1\_sig"

- [ 15] (hp := 45) "not\_aux1"

- [ 14] (hp := 46) "clk"

- [ 13] (hp := 46) "not\_aux4"

- [ 12] (hp := 50) "not\_code 3"

- [ 11] (hp := 51) "code 1"

- [ 10] (hp := 52) "no4\_x1\_sig"

- [ 9] (hp := 54) "code 0"

- [ 8] (hp := 55) "reset"

- [ 7] (hp := 56) "no4\_x1\_2\_sig"

- [ 6] (hp := 58) "fsm\_alarm\_cs 2"

- [ 5] (hp := 70) "test"

- [ 4] (hp := 72) "fsm\_alarm\_cs 1"

- [ 3] (hp := 73) "aux3"

- [ 2] (hp := 80) "fsm\_alarm\_cs 0"

- [ 1] (hp := 83) "code 3"

- [ 0] (hp := 84) "code 2"

> AStar unable to find a path.

> Re-routing with pri := 256.

- [ 1] (hp := 24) "not\_code 2"

- [ 0] (hp := 51) "code 1"

o Routing stats :

- routing iterations := 34880

- re-routing iterations := 3082

- ratio := 8.11865%.

o Dumping routing grid.

o Saving MBK figure "sdetj\_b\_l\_scan".

* Saving layout as "sdetj\_b\_l\_scan"...

**lvx output**

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Gate Netlist Comparator

Alliance CAD System 5.0 20090901, lvx 1.4

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E-mail : alliance-users@asim.lip6.fr

\*\*\*\*\* Loading and flattening sdetj\_b\_l\_scan (vst)...

\*\*\*\*\* Loading and flattening sdetj\_b\_l\_scan (al)...

\*\*\*\*\* Compare Terminals .............

\*\*\*\*\* O.K. (0 sec)

\*\*\*\*\* Compare Instances ..........

\*\*\*\*\* O.K. (0 sec)

\*\*\*\*\* Compare Connections .............

\*\*\*\*\* O.K. (0 sec)

===== Terminals .......... 14

===== Instances .......... 40

===== Connectors ......... 226

\*\*\*\*\* Netlists are Identical. \*\*\*\*\* (0 sec)

**Cougar output**

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Netlist extractor ... formerly Lynx

Alliance CAD System 5.0 20090901, cougar 1.21

Copyright (c) 1998-2019, ASIM/LIP6/UPMC

Author(s): Ludovic Jacomme and Gregoire Avot

Contributor(s): Picault Stephane

E-mail : alliance-users@asim.lip6.fr

---> Parse technological file ./techno/techno-035.rds

RDS\_LAMBDA = 24

RDS\_UNIT = 80

RDS\_PHYSICAL\_GRID = 2

MBK\_SCALE\_X = 100

---> Extract symbolic figure sdetj\_b\_l\_scan

---> Translate Mbk -> Rds

---> Build windows

<--- 80

---> Rectangles : 1258

---> Figure size : ( -116, -116 )

( 28616, 25116 )

---> Cut transistors

<--- 0

---> Build equis

<--- 55

---> Delete windows

---> Build signals

<--- 55

---> Build instances

<--- 65

---> Build transistors

<--- 0

---> Save netlist

<--- done !

---> Total extracted capacitance

<--- 0.0pF

**Druc output**

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Design Rule Checker

Alliance CAD System 5.0 20090901, druc 5.0

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E-mail : alliance-users@asim.lip6.fr

Flatten DRC on: sdetj\_b\_l\_scan

Delete MBK figure : sdetj\_b\_l\_scan

Load Flatten Rules : ./techno/techno-symb.rds

Unify : sdetj\_b\_l\_scan

Create Ring : sdetj\_b\_l\_scan\_rng

Merge Errorfiles:

Merge Error Instances:

instructionCourante : 00001234567891011121314151617181920212223242526272829303132333435363738394041424344454647484950515253545556

End DRC on: sdetj\_b\_l\_scan

Saving the Error file figure

Done

5758

Some errors have been detected, see file: sdetj\_b\_l\_scan.drc for detailed

**S2r output**

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Symbolic to Real layout converter

Alliance CAD System 5.0 20090901, s2r 5.0

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E-mail : alliance-users@asim.lip6.fr

o loading technology file : ./techno/techno-035.rds

o loading all level of symbolic layout : sdetj\_b\_l\_scan

o removing symbolic data structure

o layout post-treating

with top connectors,

with sub connectors,

with signal names,

without scotch.

--> post-treating model buf\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model o2\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model no2\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model on12\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model sff2\_x4

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model inv\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model na3\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model o3\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model nao22\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model a2\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model no4\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model na2\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model a4\_x2

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model noa22\_x1

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

--> post-treating model tie\_x0

rectangle merging :

. RDS\_NWELL .................................

. RDS\_PWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_ALU1 .................................

--> post-treating model rowend\_x0

rectangle merging :

. RDS\_NWELL .................................

. RDS\_ALU1 .................................

--> post-treating model sdetj\_b\_l\_scan

ring flattenning :

. RDS\_NWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

rectangle merging :

. RDS\_NWELL .................................

. RDS\_NIMP .................................

. RDS\_PIMP .................................

. RDS\_ACTIV .................................

. RDS\_POLY .................................

. RDS\_ALU1 .................................

. RDS\_ALU2 .................................

. RDS\_ALU3 .................................

o saving sdetj\_b\_l\_scan.cif

o memory allocation informations

--> required rectangles = 1626 really allocated = 7

--> Number of allocated bytes: 295233