

Problem A: Functional ECO with Behavioral Change

Guidance

Yen-Chun Fang, Shao-Lun Huang, Ching-Yi Huang, Chi-An (Rocky) Wu, Chung-Han Chou Chih-Jen
(Jacky) Hsu, WoeiTzy (Wells) Jong, and Kei-Yong Khoo
Cadence Design Systems, Inc.

Q&A

Q1. Regarding the question about support of patch's output ports, could I have one wire of new function as a support of another new function? Or, we could only use original wires in G1.v as support?

Assume that I want to change wire x and y in G1.v. If I use changed x as one support of y , is it a valid patch?

```
module top_eco(x,a,y);  
output x, y;  
input a;  
wire a, x, y;  
not eco_n1(x, a);  
and eco_a1(y, x, a);  
endmodule
```

A1. Yes, you can use any signal in the patch module to compose your functions. We only allow all-fanout changes in the patch.

For example,

```
not eco_n1(x, a);  
and eco_a1(y, x, a);
```

Signal a is fanout to eco_n1 and eco_a1 .

If you want to change the signal a by your patch

```
...  
output a;  
input b;  
assign a=b;
```

...

All fanout of a will be changed to b in this case.

You may not change designated fanout of a .