

Problem C: Static IR Drop Estimation Using Machine Learning

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Supported by: Steel Perlot and the OpenROAD Project

Q&A

Q1. I would like to ask topic chair Dr.Chhabria about problem C.

On page 4, spice-based data is provided.

Consider the following netlists,

```
R34269 n1_1080_1080_2 n1_600_1080_5 10.000000
```

```
R36241 n1_167996_60_7 n1_167460_60_8 10.000000
```

Is it possible to have a resistive component with different layers(via) and different xy locations(wire) at the same time?

Thank you.

A1. No, this will not be possible. If the layer changes, the x and y will be the same.

Q2. I would like to ask about problem C.

The website <https://github.com/UMN-EDA/BeGAN-benchmarks> has provided SPICE-based data. However, there are no matrices about effective distance and PDN density.

Could you please help to advise where the Image-based data provided? Thank you.

A2. These matrices will be released on the website and will be updated on the GitHub repo soon.

Q3. I would like to ask about problem C.

There is something strange in the spice files provided on the website <https://github.com/UMN-EDA/BeGAN-benchmarks>. For example, in real-circuit-enchmarks/asap7/data/aes_reg_grid.sp.gz, the layer changes from M7 to M8, and the x also changes.

```
R35161 n1_M7_4156_60 n1_M8_4380_60 10.000000
```

The format of the node in the netlist is also different from that of the document.

```
<netname>_<x-cordinate>_<y-cordinate>_<layer-idx>
```

```
n1_M7_4156_60
```

What's more, could you please help to advise when the Image-based data will be provided?

Thank you.

A3. This will be fixed shortly and the updated image-based data will be available by May 31st.

