
IBIS Model as De-Facto Standard

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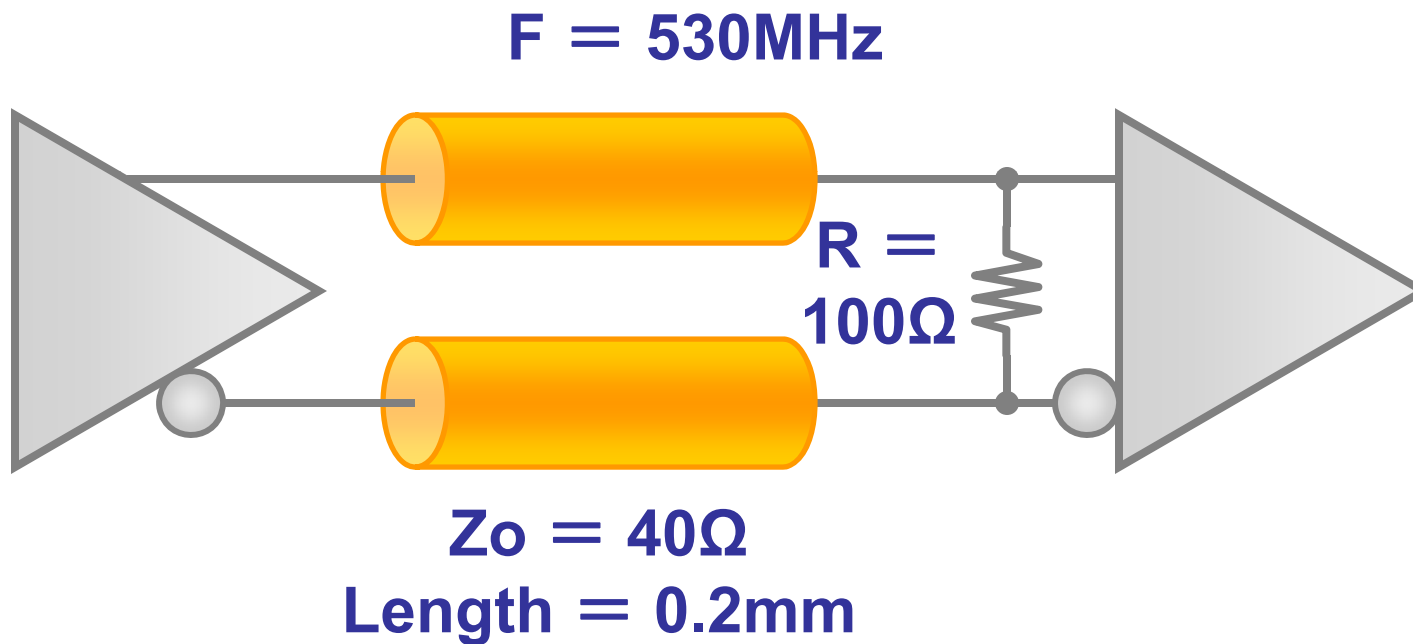
Prologue

When do you do SI simulation by using same IBIS model but different SI simulators,
do you think the results will be same?

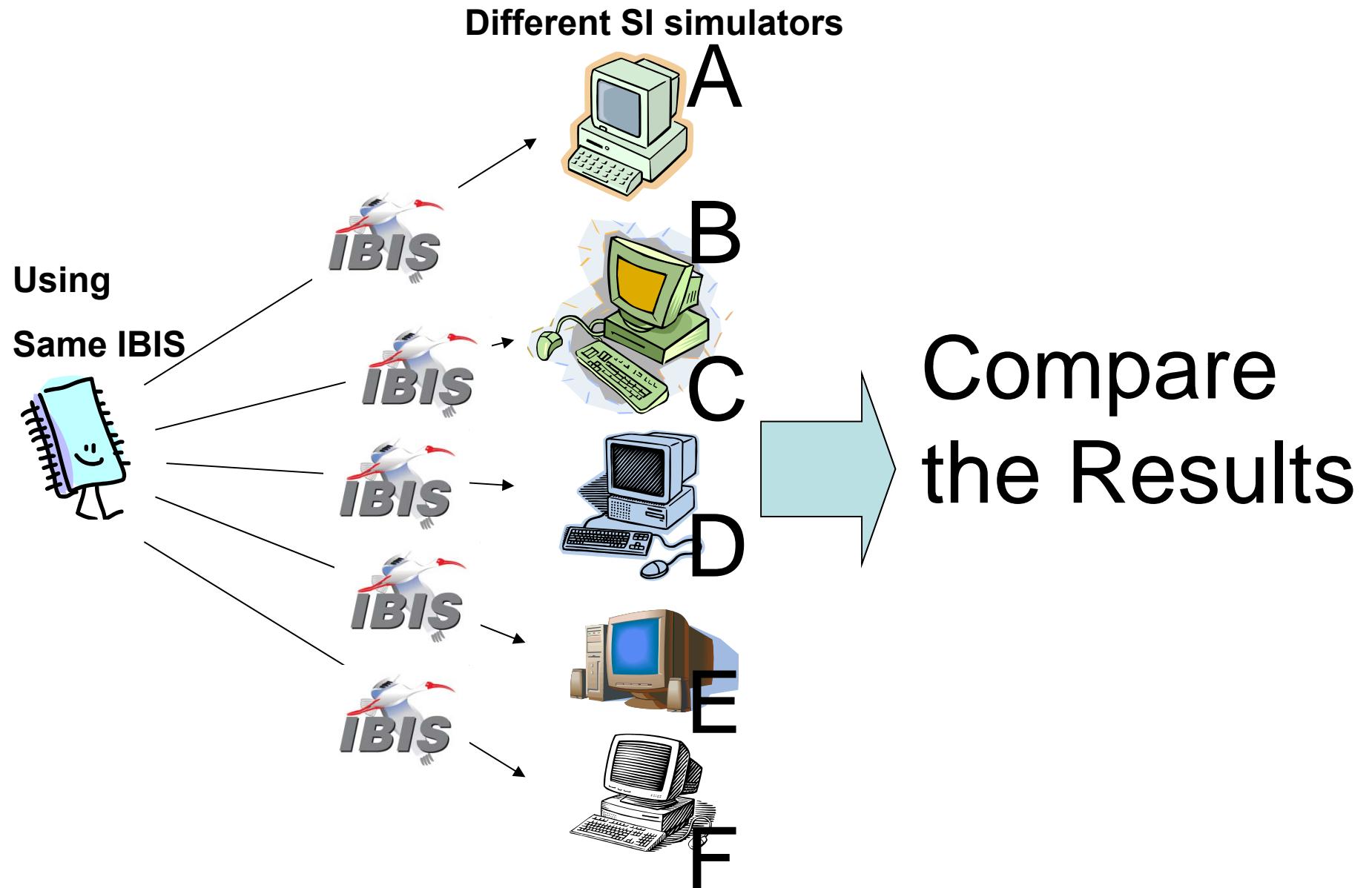
I did an experiment.

The experiments.

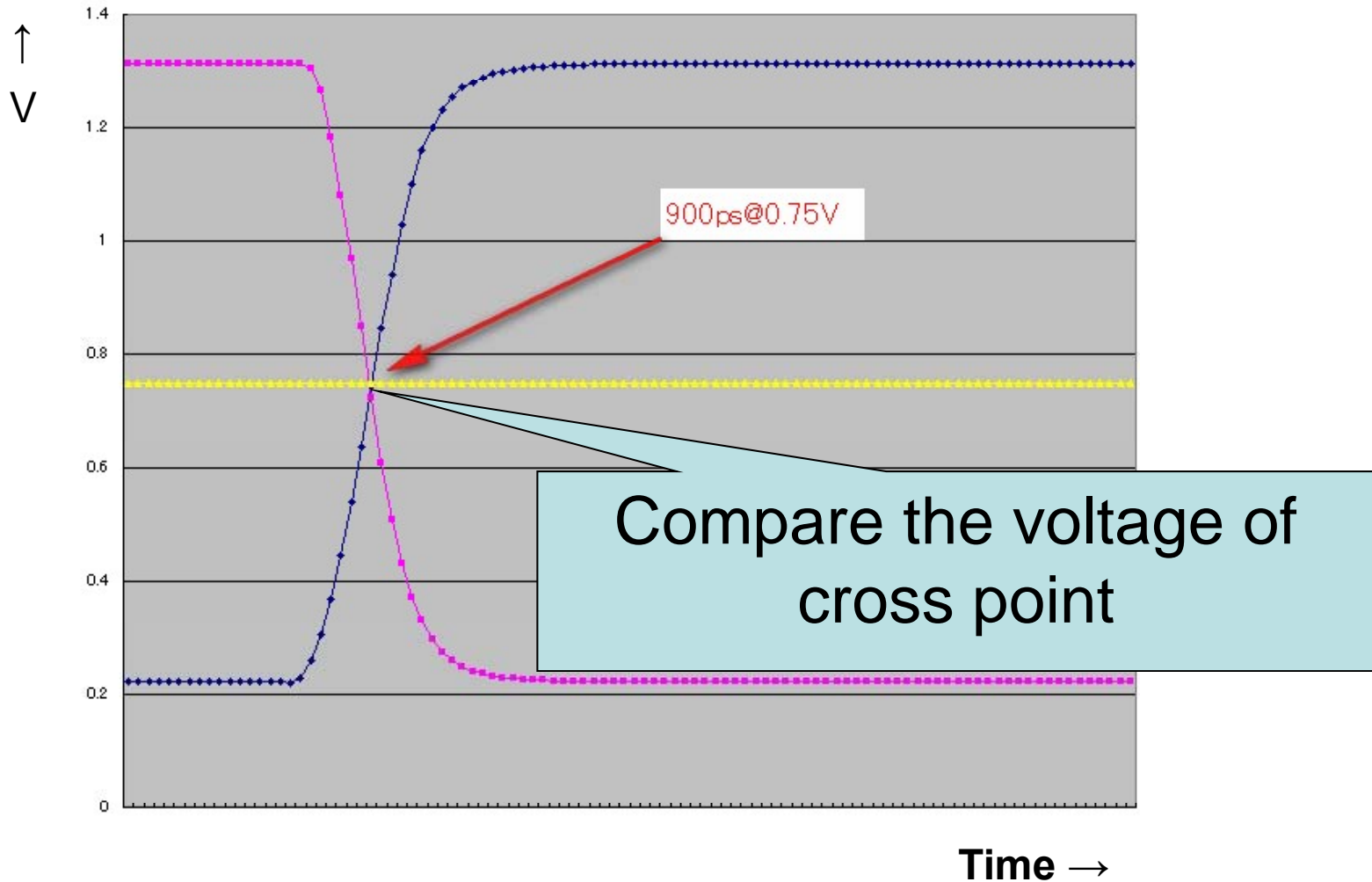
Using Same circuit



The experiments.



Compare point



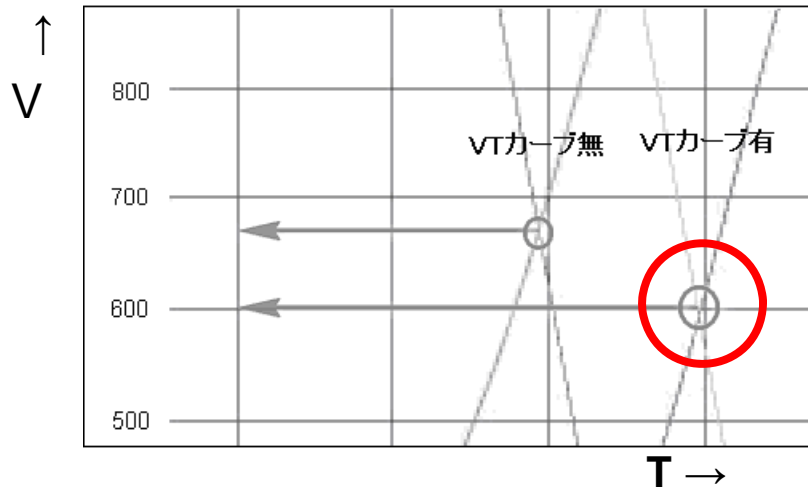
The Results

SI simulator	Cross Point Voltage
A	600 mV
B	730 mV
C	620 mV
D	750 mV
E	764 mV
F	705 mV

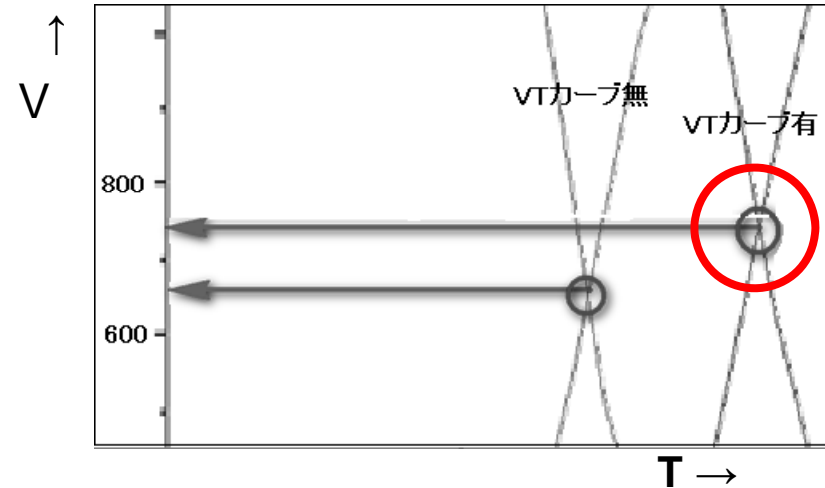
The results are all different

The Results

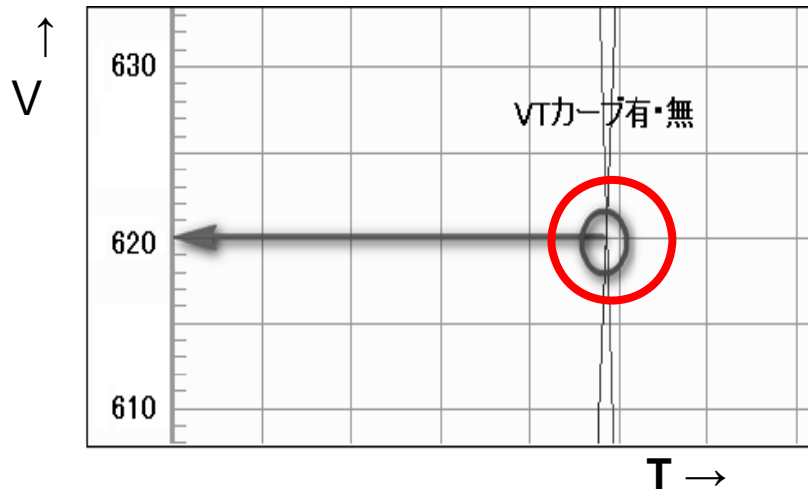
Simulator A



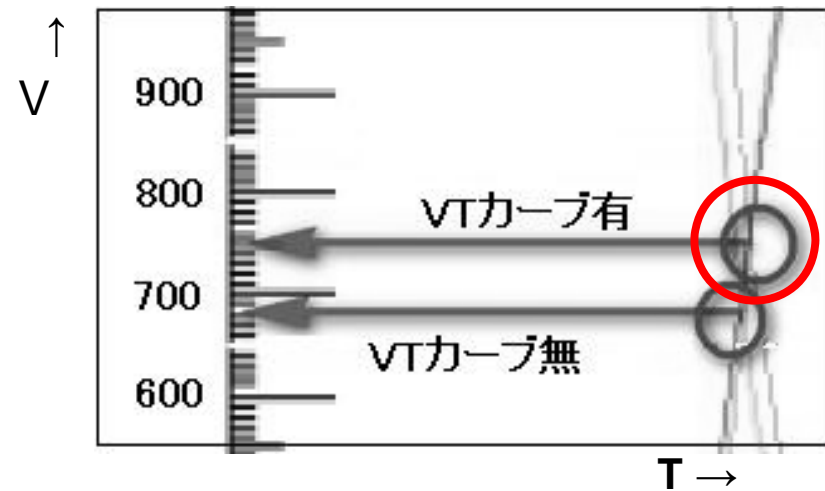
Simulator B



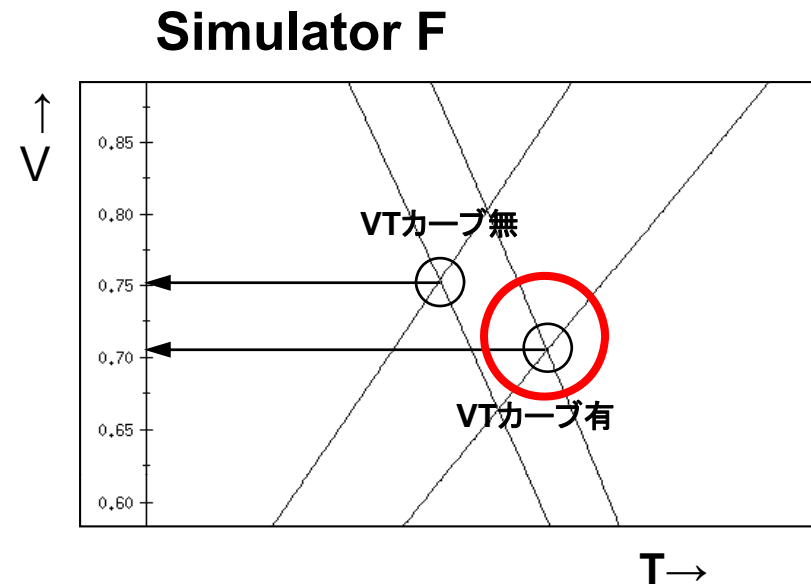
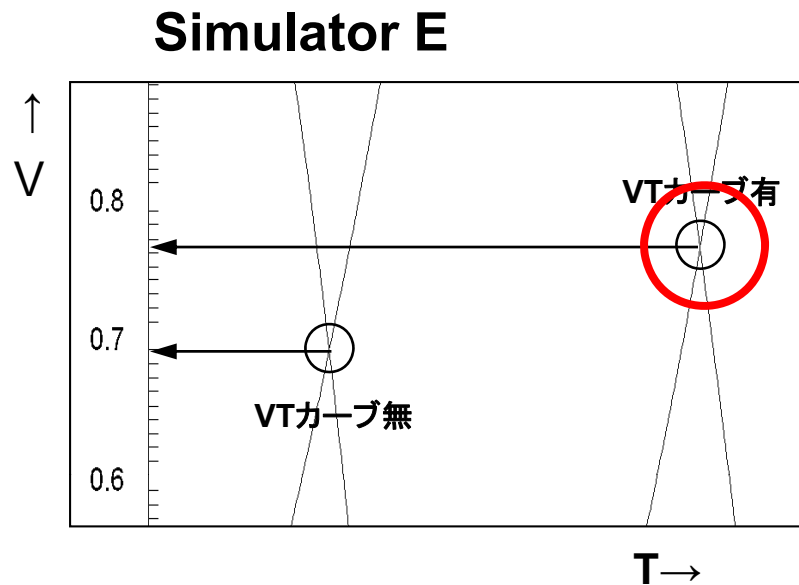
Simulator C



Simulator D



The Results



All of 6 simulator's results
are different!!

(MAX 160mV difference)

SI simulator	Cross Point Voltage
A	600 mV
B	730 mV
C	620 mV
D	750 mV
E	764 mV
F	705 mV

What can I believe?

We are in era of

Can get IBIS model easily

Can trust IBIS model

Many Thanks for JEITA

IBIS Quality Framework

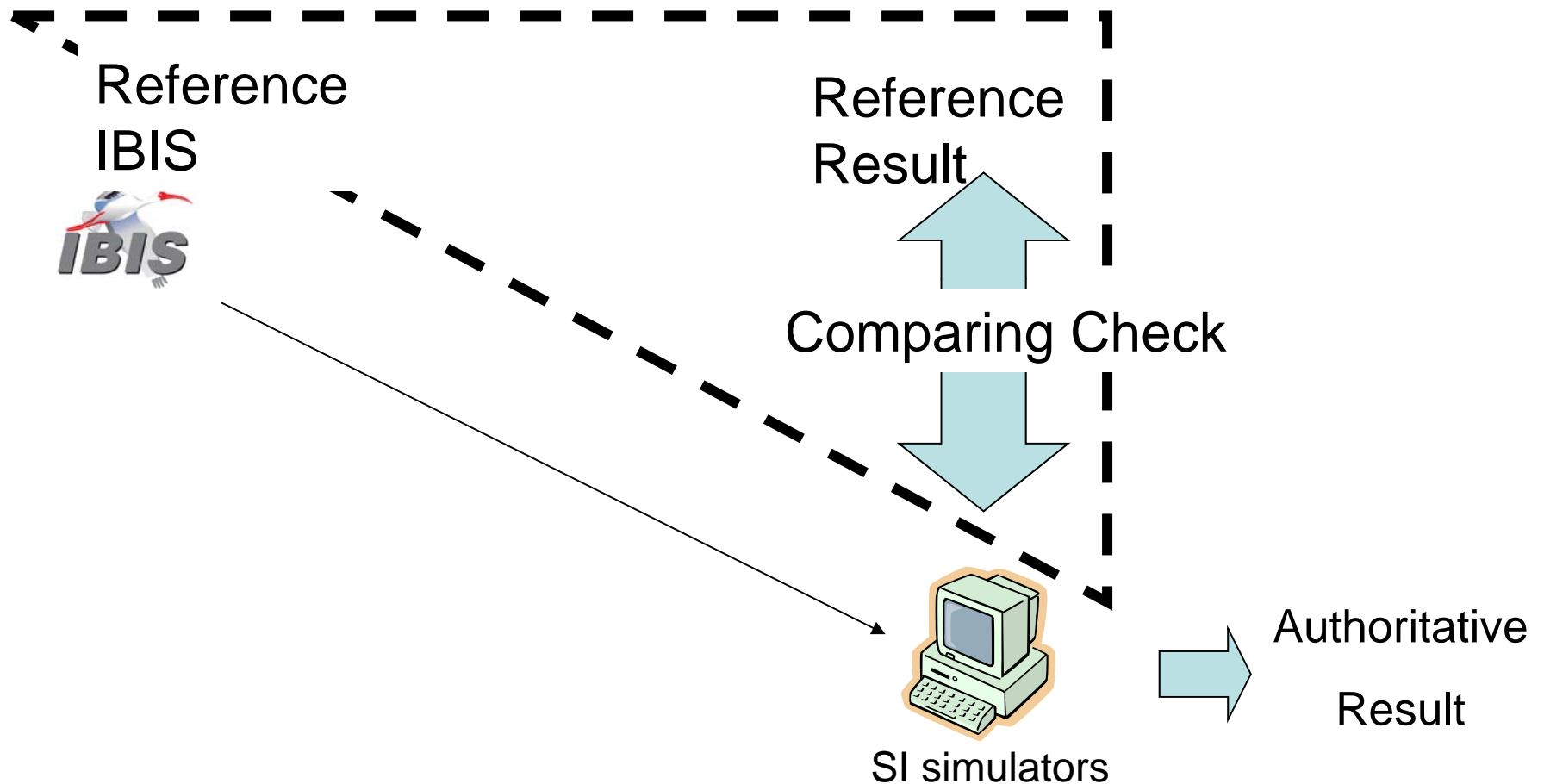
But,

In order to use IBIS model as real **de-facto standard**,

Now, we may need to have

The quality framework for SI simulators

The quality framework for SI simulators



Many thanks for helping to do the experiment.

IBITECH Co., LTD
BOARD TECHNOLOGY Ltd
TOWA Electronics Co., Ltd
Cedar-Creek Co., Ltd
Xpeedic Technology, Inc.

Epilogue

I did another experiment.

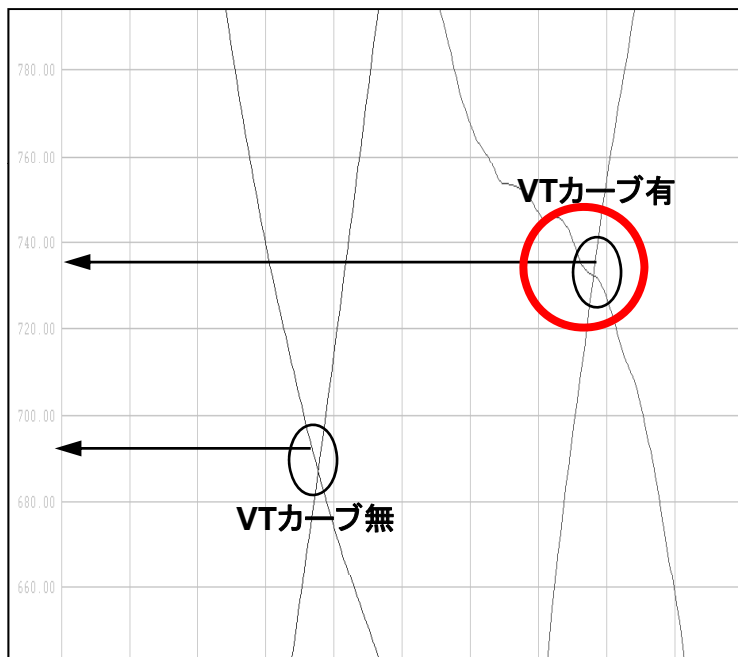
Same IBIS and same SI simulator but
different Engineer.

The result was.....

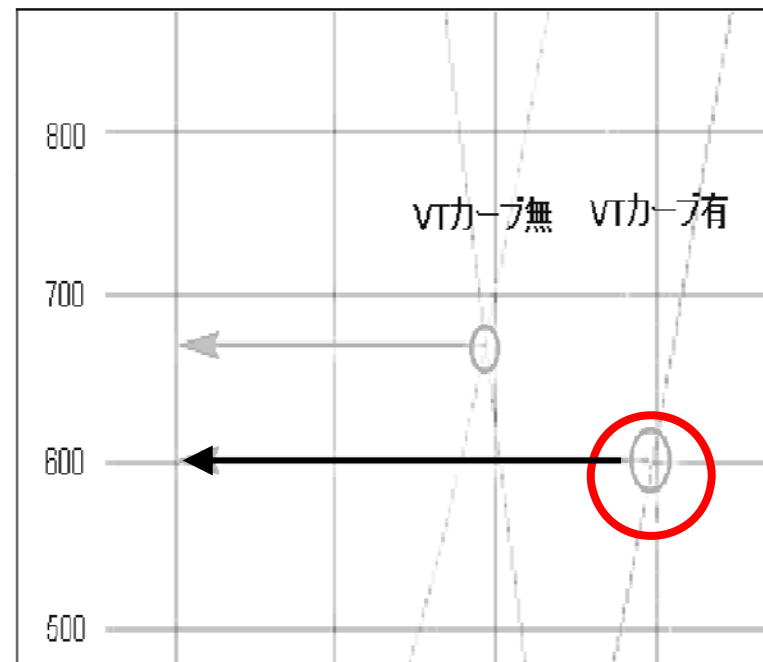
The result was.....

Different!

?



Engineer Mr. A



Engineer Mr. B

Engineer's skill makes the result difference

Today, IBIS model is getting to be real de-facto standard.

Every body can get good IBIS.

So many engineers (From beginner to expert) are using IBIS model.

But, SI simulator is not magical tool yet.

It still depends on engineer's skill.

We need

- GOOD IBIS and GOOD TOOL
- GOOD Engineer and GOOD support.