

IBIS Accuracy at IBM

Greg Edlund

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The Past Four Years

- 11/97 IBIS User's Group
- 01/99 I/O Buffer Accuracy Handbook
- 01/99 Test board
- 09/00 16831 Accuracy Report
- 12/00 ack program
- 05/01 IBIS and SPICE checklists
- 08/01 BIRD 70, Golden Waveforms

IBM: IBIS Producer

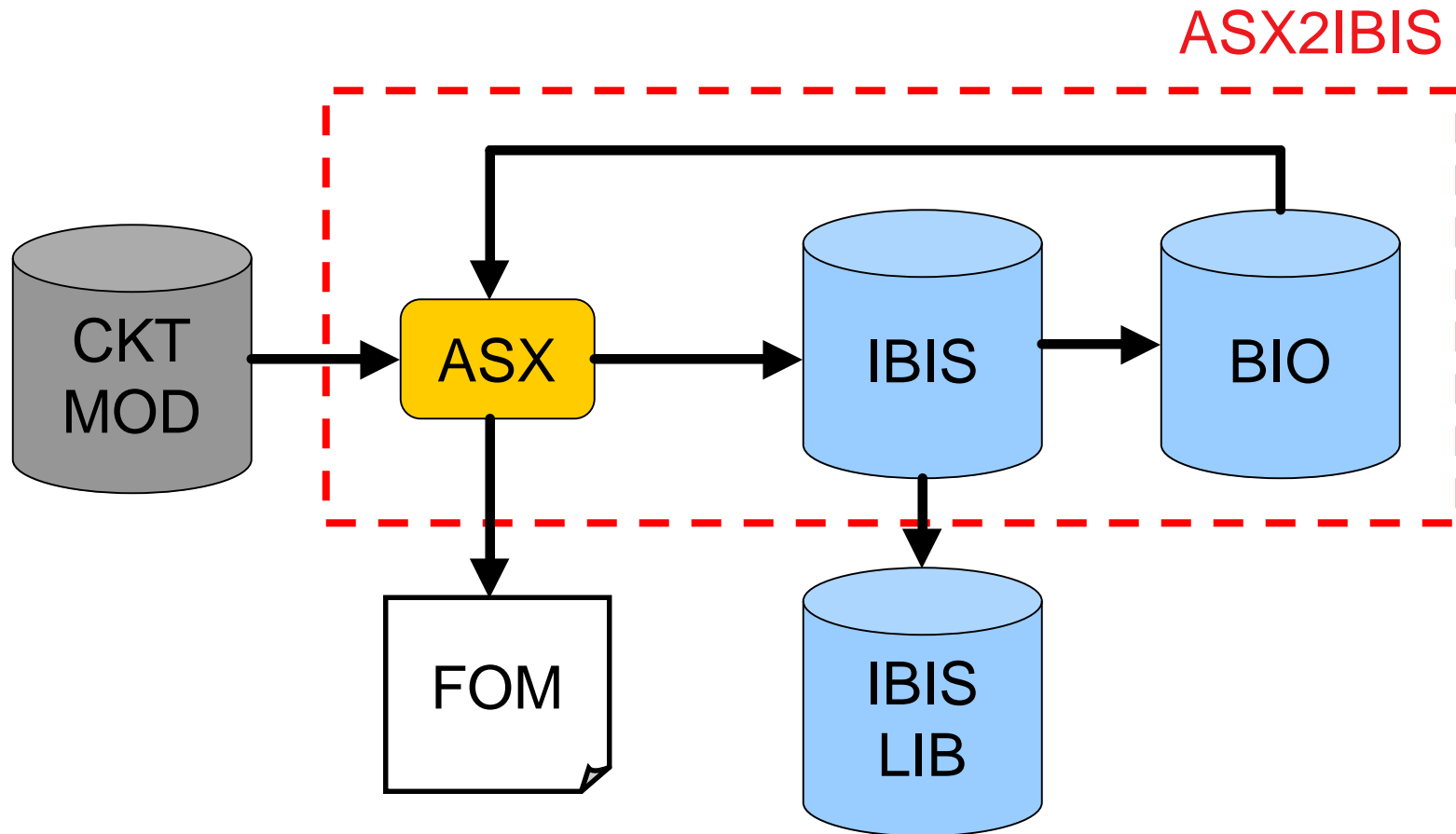
Quality that leads the industry

- ASX2IBIS batch processor
- Behavioral vs. circuit model correlation
- Extraction of C_comp from circuit model
- Extraction of Vinl and Vinh from dc transfer curves

Hats off to Jerry Hayes of IBM

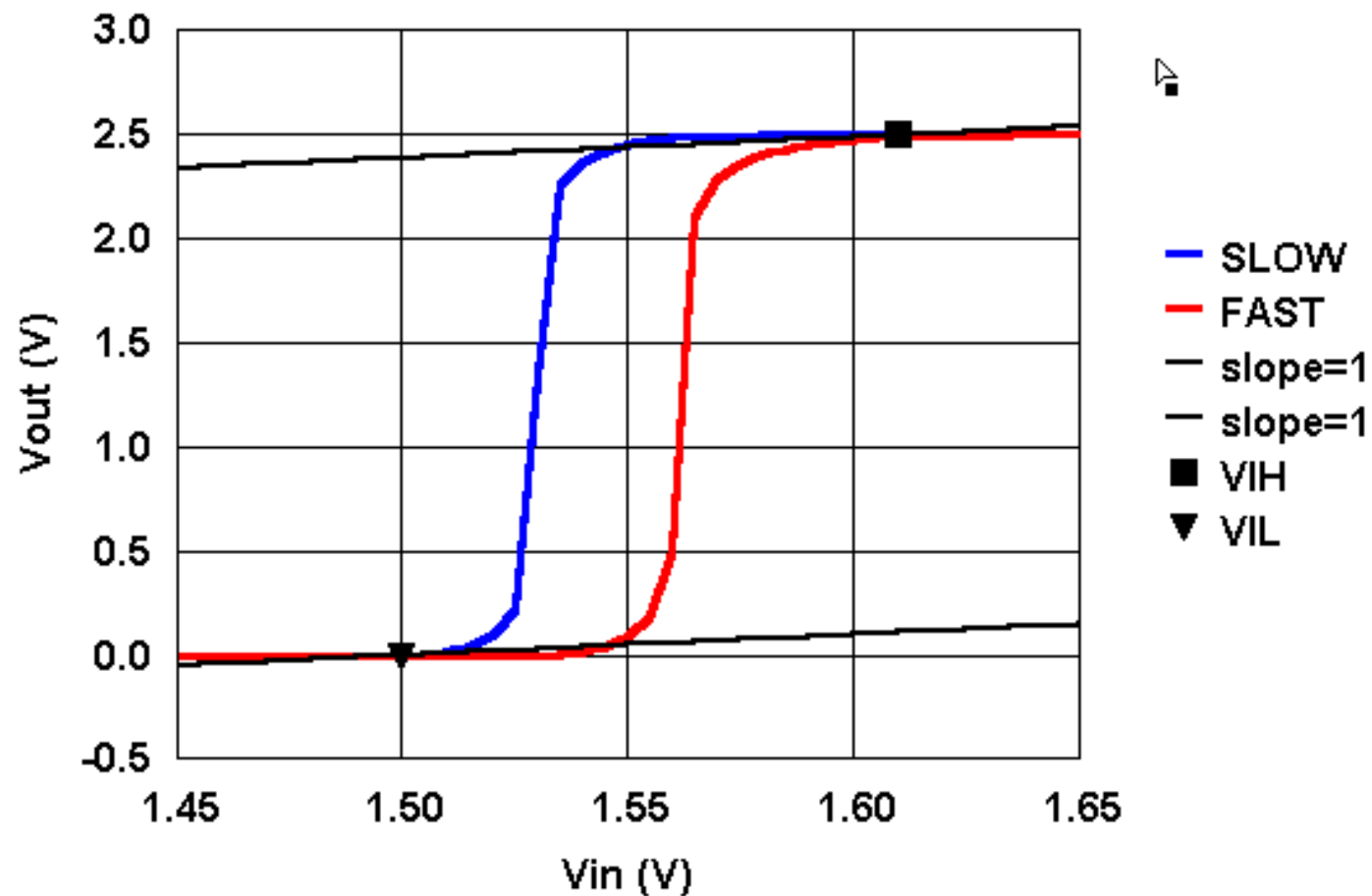
Microelectronics in Burlington, VT.

ASX2IBIS Process Flow



ASX=CKT SIM; FOM=FIGURE OF MERIT; BIO=BEHAVIORAL I/O MODEL

Vinl and Vinh Extraction

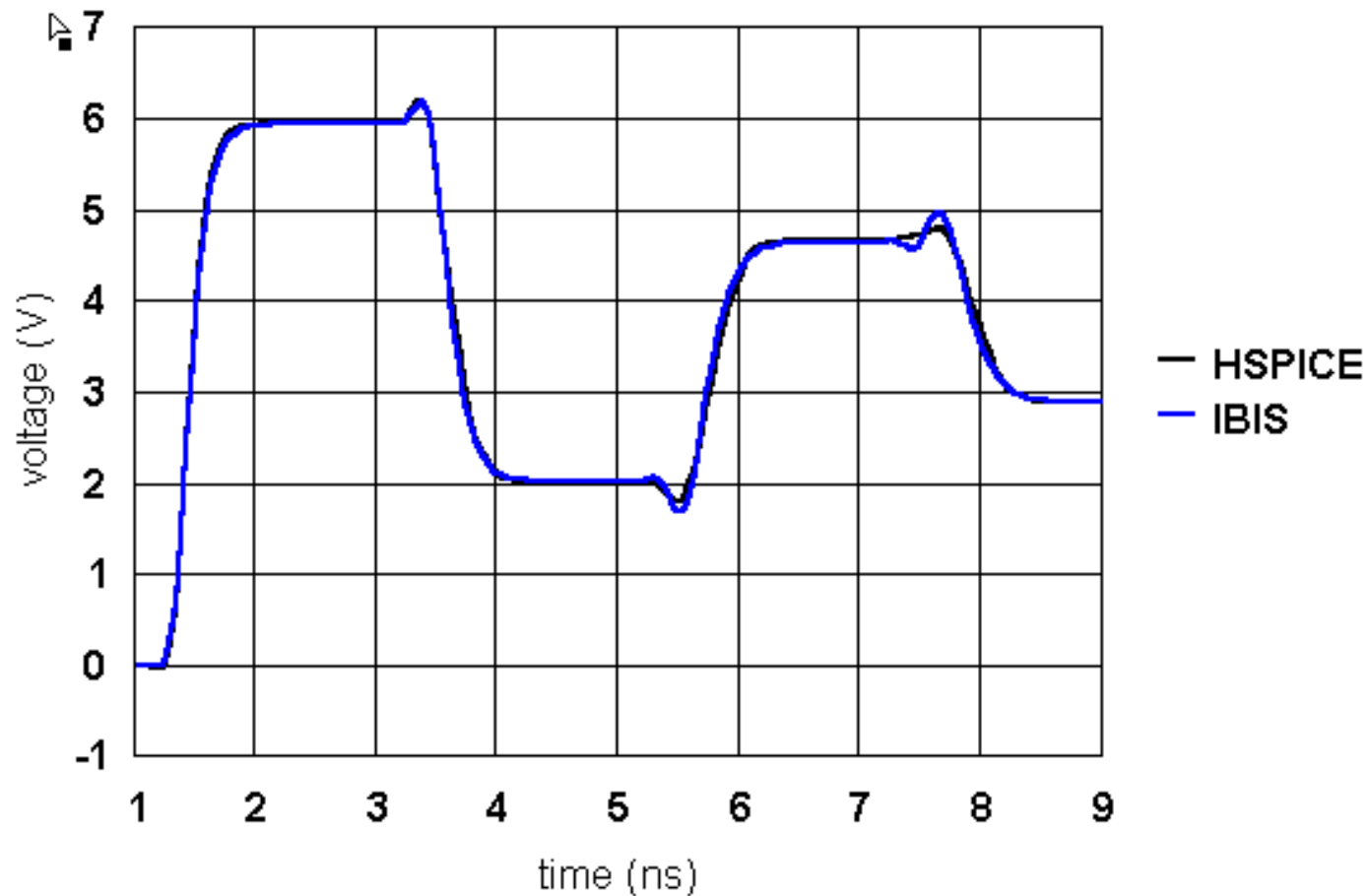


IBM: IBIS Consumer

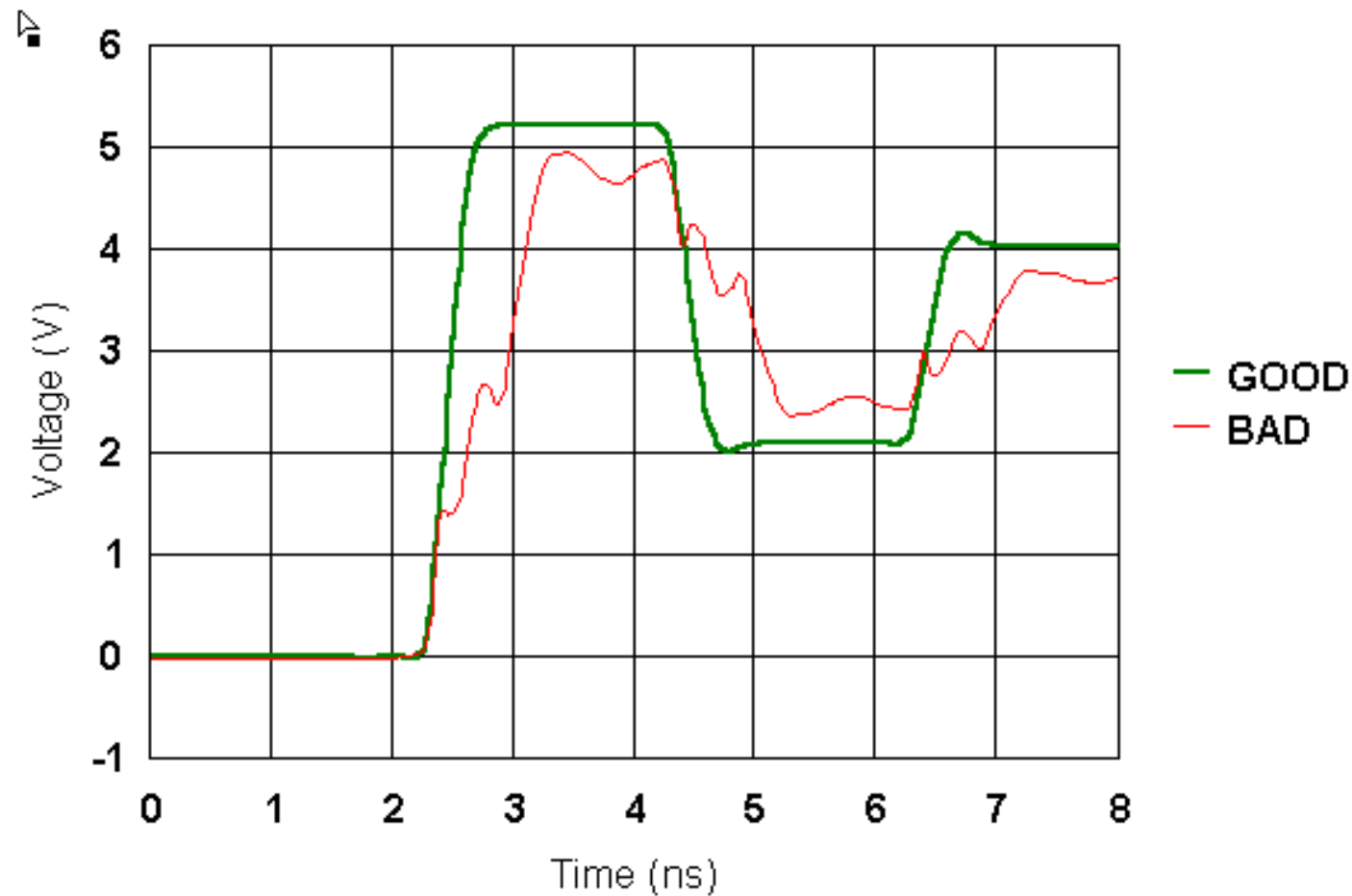
Laundry List of Common Problems

- Missing min and max values
- Bogus C_comp values (not extracted from SPICE)
- Missing Vinl and Vinh
- Bogus Vinl and Vinh values (0.8 V and 2.0 V)
- Missing Cref, Rref, Vref, and Vmeas
- Min AC Endpoints not within v of (v,t) on VI curve
- Missing VT tables

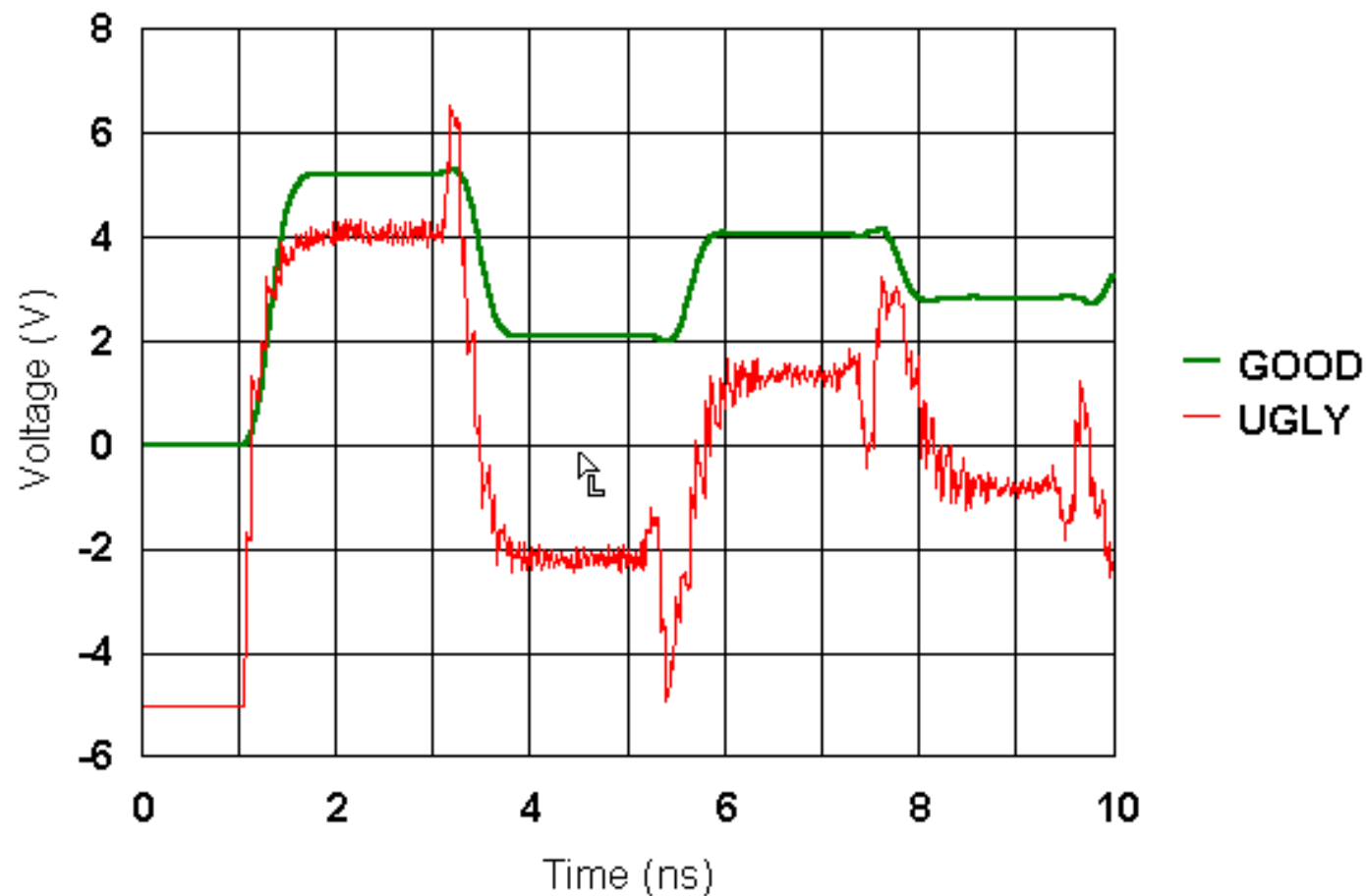
Hall of Horrors: The Good



Hall of Horrors: The Bad



Hall of Horrors: The Ugly



Parting Advice to IBIS Users...

- “Put it in the purchase spec.”
- Call out the IBIS checklist.
- Require Golden Waveforms.