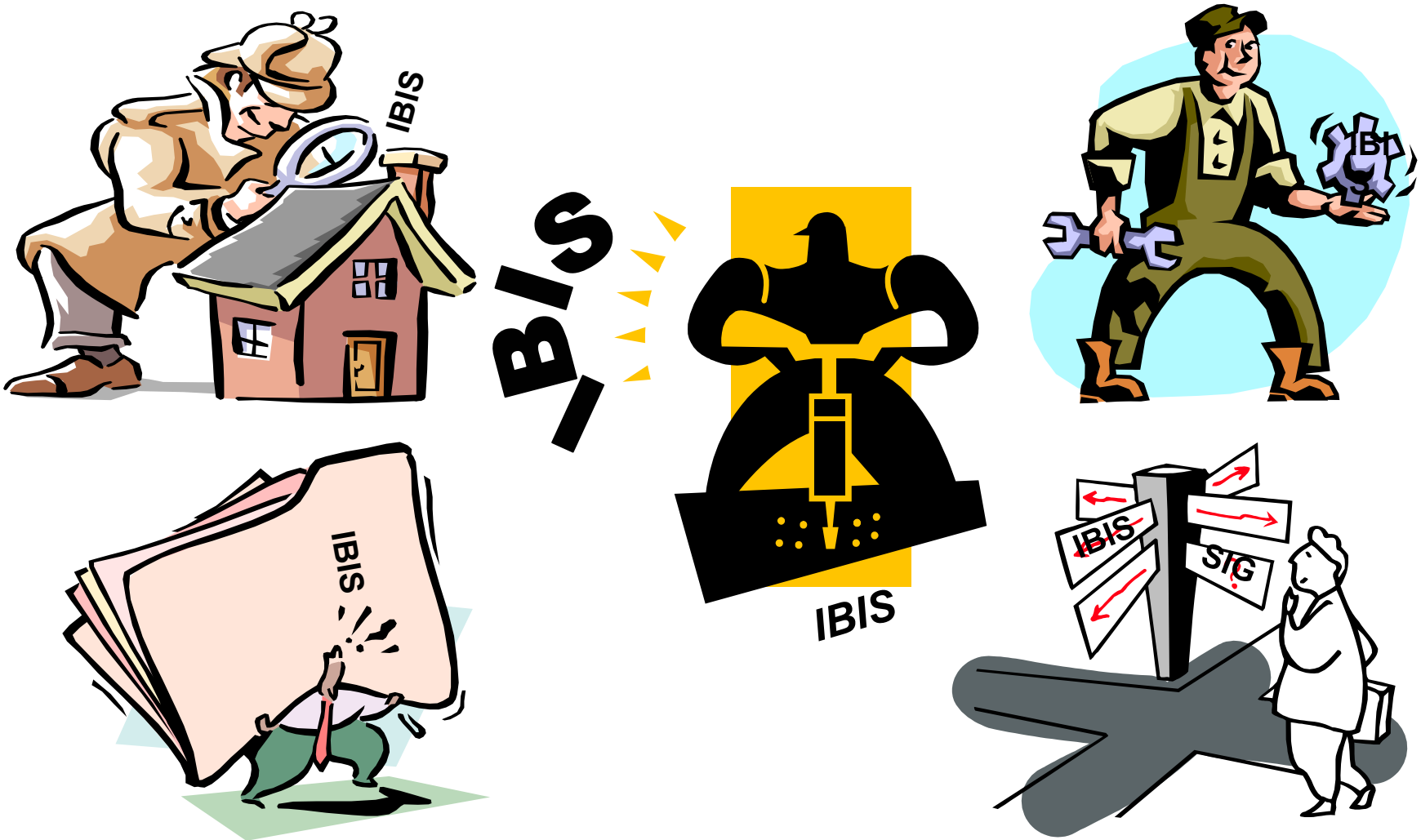
Siemens IBIS group update 2006

SIEMENS

Under construction



Introduction

The SIEMENS IBIS GROUP is formed by members of different Siemens divisions. This group has defined a **common quality level for ibis models** which is **required by all SIEMENS divisions.**

SIEMENS design flows include the **board/system simulation as a main topic** to support **design to cost** and **time to market** initiatives. The quality of the used models primarily determines the simulation results.

In this light of responsibility we expect from our IC vendors **high IBIS model availability** and as well as **advanced IBIS modeling know how**

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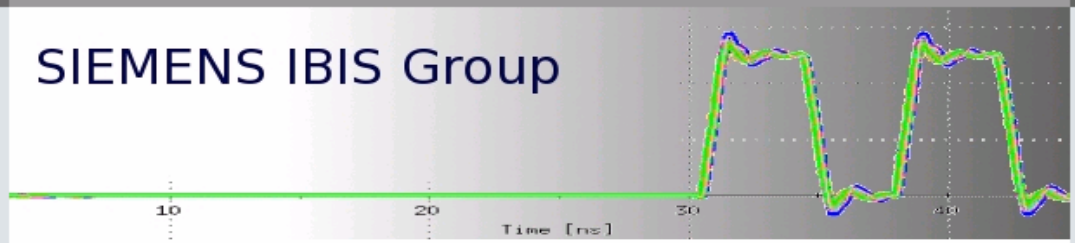

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IBIS quicklinks

official IBIS web page
IBIS specification (pdf)
Cookbook (pdf)

Welcome to the home of the Siemens IBIS group

dedicated to IBIS quality

Siemens design flows include the board/system simulation as a main topic to support design to cost and time to market initiatives. The quality of the used models primarily determines the simulation results.

In this light of responsibility we expect from our IC vendors high IBIS model availability and quality as well as advanced IBIS modelling know how and support.

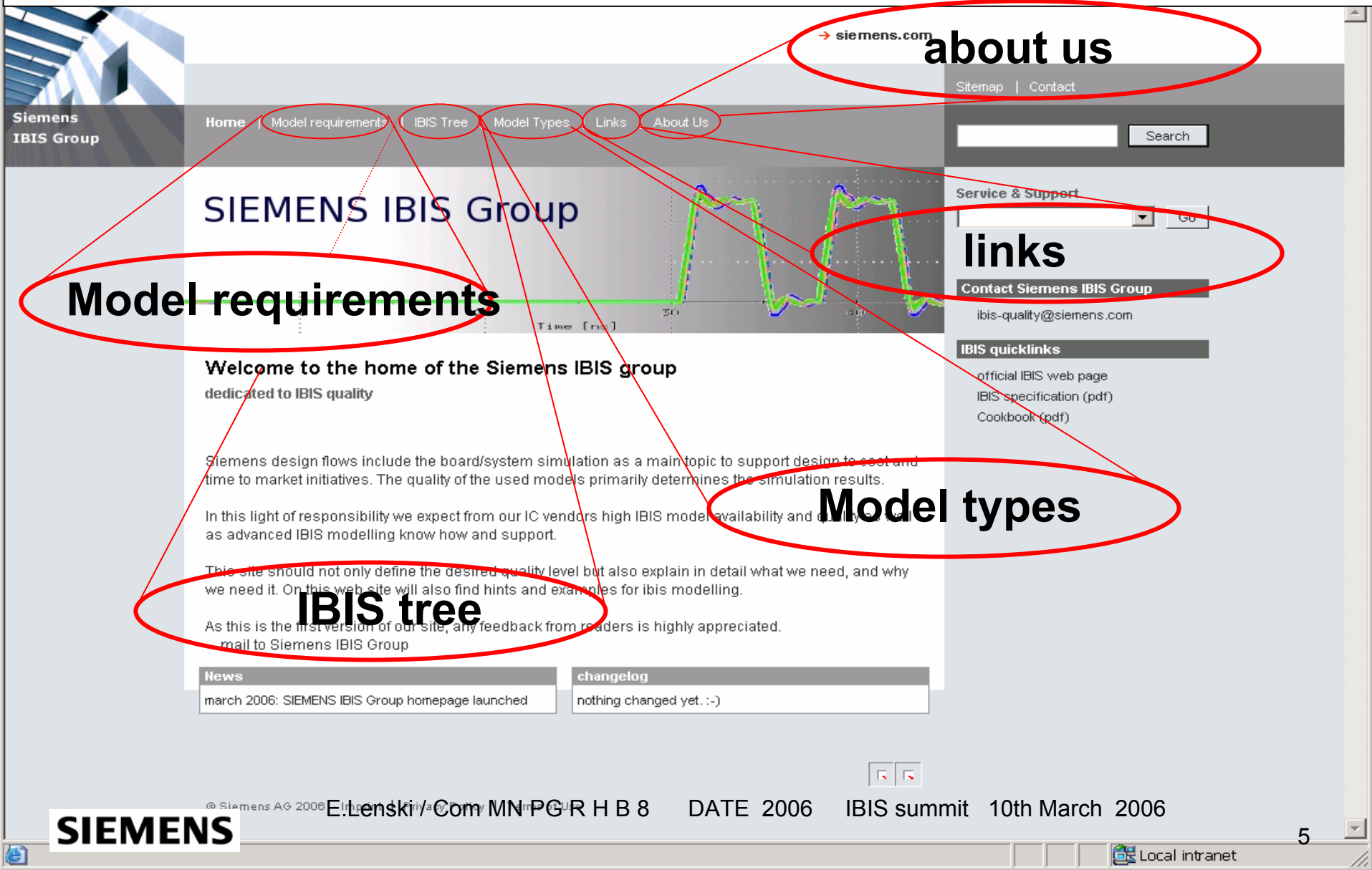
This site should not only define the desired quality level but also explain in detail what we need, and why we need it. On this web site will also find hints and examples for ibis modelling.

As this is the first version of our site, any feedback from readers is highly appreciated.
mail to Siemens IBIS Group

News	changelog
march 2006: SIEMENS IBIS Group homepage launched	nothing changed yet. :-)

Local intranet

overview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Model types
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Example

IBIS tree

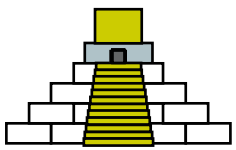
Model keyword

Model Spec

Receiver thresholds

Voltage range

Ramp / ...waveforms



Ramp should be in accordance with the static curves

Explanation of model requirements

Title	refered ibis keyword
Ibis reference	corresponding ibis keywords
Requirements	what is needed
Example	explanations and descriptions
Hints	infos e.g. about ibis default
Links	further information, or related keywords

Ibis tree with example

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File Data Section (Header)

[Component]

[Model Selector]

[Model]

[Model Spec]

[Receiver Tresholds]

[Add Submodel]

[Driver Schedule]

[Temperature Range]

[Voltage Range]

[... Reference]

[TTgnd] [TTpower]

[Pulldown] [Pullup]

[GND Clamp] [POWER Clamp]

[Rgnd] [Rpower]

[Ramp], [Rising Waveform], [Falling Waveform]

Overview

u(t) - waveforms
Headline
Headline
Headline
Headline
Headline

u(t) - waveforms

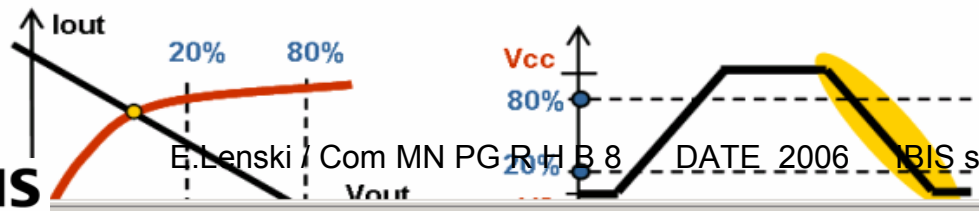
section 6 / [Ramp] / dV/dt_r dV/dt_f R_load
section 6 / [Rising Waveform], [Falling Waveform],
R_fixture, V_fixture, V_fixture_min, V_fixture_max, C_fixture, L_fixture, C_dut, L_dut, R_dut

REQUIREMENT
The Ramp should be in accordance with the static curves.

Example
There is some information double inside ibis files which contain the keyword ramp: The dV_r or dV_f information of the ramp is also inside the static curves.

Intersection of Low-curve with R_load-line
dV_f = (Vcc - V2) * 0.6

Corresponding falling u(t)
dV_f = (Vcc - V2) * 0.6



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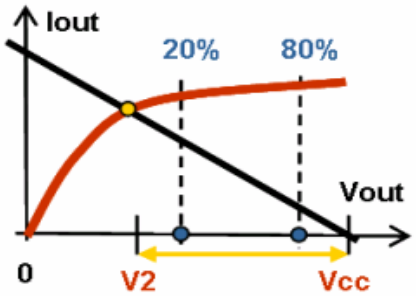
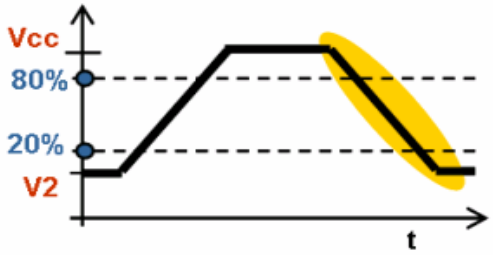
Ramp – static curves

Information of the ramp is also inside the static curves.

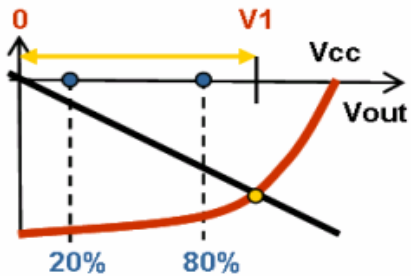
Intersection of Low-curve with R_load-line
dV_f = (Vcc - V2) * 0.6



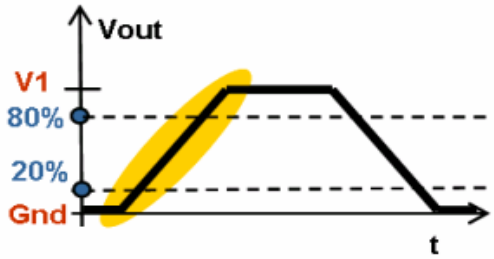
Corresponding falling u(t)
dV_f = (Vcc - V2) * 0.6



Intersection of high-curve with R_load-line
dV_r = V1 * 0.6



Corresponding rising u(t)
dV_r = V1 * 0.6



Hint
Wrong or missing R_load. If the R_load keyword is missing this is equal with R_load = 50ohms. In this case you can try to add an R_load different to 50 ohms and see if you can match all 6 dV – values with the static curves.

Links
see also [Pulldown] [Pullup]

Summary

www.siemens.com/ibis

Start : june 2006 or earlier

Email to: ibis-quality@siemens.com