

Re: Four Logic Levels

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- *From:* Jim Thompson <To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx>
 - *Date:* Wed, 30 Apr 2008 08:45:54 -0700
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On Wed, 30 Apr 2008 11:30:22 -0400, Spehro Pefhany
<speffSNIP@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

On Wed, 30 Apr 2008 07:40:36 -0700, Jim Thompson
<To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx> wrote:

On Wed, 30 Apr 2008 07:19:10 -0700, John Larkin
<jjlarkin@xx> wrote:

On Wed, 30 Apr 2008 07:09:18 -0700 (PDT), Robotnik
<fathahrahman@xxxxxxxx> wrote:

Hey guys,
I was thinking of a new concept whereby we could square the amount of information stored in a bit. Currently, the information stored in a bit is whether the bit is on or off. To put it simply, the information has a base (remember, logarithmic base) of 2. If we could develop a mechanism whereby the base can be increased to 3 or 4, the amount of information stored can be increased to more than 1.584 times in the case where the base is increased to two or 2 (twice) if the base is increased to 4. This can be accomplished by sensitizing 3(4 if possible) voltage levels instead of the two currently. Your comments are invited.

Re: Four Logic Levels

<http://www.siliconfareast.com/flash-memory.htm>

<http://web.cecs.pdx.edu/~mperkows/ISMVL/flash.html>

John

I do it all the time, but not at speed... I use it to set options on a chip:

- Option 1, pin grounded
- Option 2, pin floating
- Option 3, pin tied to VDD

...Jim Thompson

What circuitry is required to turn that single input into 2 bits at CMOS levels?

Inverters sized for thresholds at 1/4 and 3/4 of VDD is one way.

Do you use high value resistors to set the floating level or some arrangement of transistors?

High-value resistors typically (typical 1K/sq available on analog processes).

Best regards,
Spehro Pefhany

...Jim Thompson

James E. Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona 85048 Skype: "skypeanalog"	
Voice:(480)460-2350 Fax: Available upon request	Brass Rat
E-mail Icon at <http://www.analog-innovations.com>	1962

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