

The Crowdsourcing Compiler

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modern programming

- specify broad control and data structures
- don't worry about:
 - memory management/allocation/reuse
 - primary/secondary/tertiary
 - loop optimization
 - parallelization, cluster management
- don't need to know much about how computers "really" work

imagine a high-level programming language...

- much like those of today
- but with built-in functionality for social computation
- e.g. classifying objects, making predictions/decisions, optimization/search
- perhaps even in the physical world (e.g. taskrabbit, uber)

...whose compiler would decide:

- human or machine?
- sequential or parallel?
- incentives: payment (subject to budget), entertainment, prestige, purpose,...
- individuals or groups?
- structure, organization, communication
- coverage/overlap
- toy problem: collective short-term memorization
- sample instantiation: Emery Berger's AutoMan at UMass; others?

The Engineering Staff of
TEXAS INSTRUMENTS
 European Semiconductor Group

The TTL Data Book

for
 Design Engineers

VOL. 1



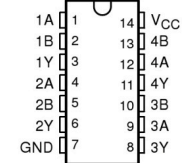
TEXAS INSTRUMENTS

SN54HC132, SN74HC132 QUADRUPLE POSITIVE-NAND GATES WITH SCHMITT-TRIGGER INPUTS

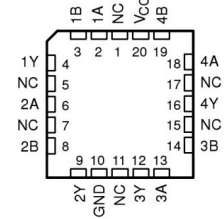
SCLS034F – DECEMBER 1982 – REVISED NOVEMBER 2004

- Wide Operating Voltage Range of 2 V to 6 V
- Outputs Can Drive Up To 10 LSTTL Loads
- Low Power Consumption, 20- μ A Max I_{CC}
- Typical $t_{pd} = 14$ ns
- ± 4 -mA Output Drive at 5 V
- Low Input Current of 1 μ A Max
- Operation From Very Slow Input Transitions
- Temperature-Compensated Threshold Levels
- High Noise Immunity
- Same Pinouts as 'HC00

SN54HC132 . . . J OR W PACKAGE
 SN74HC132 . . . D, DB, N, NS, OR PW PACKAGE
 (TOP VIEW)



SN54HC132 . . . FK PACKAGE
 (TOP VIEW)



NC – No internal connection

description/ordering information

Each circuit functions as a NAND gate, but because of the Schmitt action, it has different input threshold levels for positive- and negative-going signals. The 'HC132 devices perform the Boolean function $Y = \overline{A \cdot B}$ or $Y = \overline{A} + \overline{B}$ in positive logic.

These circuits are temperature compensated and can be triggered from the slowest of input ramps and still give clean jitter-free output signals.

ORDERING INFORMATION

T _A	PACKAGE†		ORDERABLE PART NUMBER	TOP-SIDE MARKING
-40°C to 85°C	PDIP – N	Tube of 25	SN74HC132N	SN74HC132N
		Tube of 50	SN74HC132D	HC132
	SOIC – D	Reel of 2500	SN74HC132DR	
		Reel of 250	SN74HC132DT	
	SOP – NS	Reel of 2000	SN74HC132NSR	HC132
	SSOP – DB	Reel of 2000	SN74HC132DBR	HC132
	TSSOP – PW	Tube of 90	SN74HC132PW	HC132
Reel of 2000		SN74HC132PWR		
Reel of 250		SN74HC132PWT		
-55°C to 125°C	CDIP – J	Tube of 25	SNJ54HC132J	SNJ54HC132J
		Tube of 150	SNJ54HC132W	SNJ54HC132W
	LCCC – FK	Tube of 55	SNJ54HC132FK	SNJ54HC132FK

† Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at www.ti.com/sc/package.

Tekno Networks

hard questions

- what should the “components” look like?
- what should their “operating characteristics” or specs look like?
- will heterogeneity of “hardware” kill this whole idea?
- is the whole idea just too creepy to contemplate?