

ASCII THROUGH THE LOGIC GATE

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[An epic in 32K words]

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Block 27 (Block CAPITALS)

[While Hex has fallen into the hands of the Error Squad, and Cleo has fallen down a mine shaft, Ascii has not been idle.]

Hex had left Ascii in the hills with the lethal gigotic induction program blasted into his PROM and instructions to proceed as fast as possible to Fort Ranfour.

Ascii ambled along for a while, sniffing the crisp mountain air, enjoying his jaunt. Now and then he paused to pay his respects to a particularly imposing fir tree. The sun was shining, and he was having a good time.

Suddenly everything changed. In characteristically slipshod fashion, Hex had left a zero off the end of the delay loop initialization counter. In consequence, Ascii's warhead had been primed with a short fuse, and had gone off prematurely.

He tore off as if stung by a hornet. He just kept running. He ran up the critical path, down the audit trail, along the disc track and didn't stop running till he came to Route 66 -- the congested data highway that led into Fort Ranfour.

From the verge, he looked down on the traffic busily streaming in both directions, guided to its destination along invisible buried rails -- each message tightly encapsulated in its own logical packet, oblivious of the outside world. Then in the distance he heard the distinctive melancholy hoot of a pulse train. He backed off slightly and watched as it rattled past, laden with its cargo of bits. There was a start bit on the engine, eight wagons piled high with data bits, and a stop bit on the guard's van bringing up the rear. It was the 1200 kilobaud express, dead on time. He listened to its rhythmic clatter recede into the distance.

On impulse, he decided to join in; and cantered along the embankment looking for the nearest slipway. Presently he came to a large toll gate. This was the logic gate through which he had to pass to get onto the data highway.

It was an impressive edifice, faced with marble. It consisted of three archways. The major one, in the centre, was barred by a heavy wrought-iron gate; but the two side entrances were open. Over the main arch the words "abandon hope, all ye who enter here!" were engraved in bold Roman capitals. And from the top three gargoyles stared balefully down: they were busts of the three great logicians, Aristotle in the middle, flanked by George Boole and Bertrand Russell on either side.

While he stood and stared in awe, the two guardians of the gateway sprang out into his path. They were grotesque. On two squat, round, seemingly human bodies perched dogs' heads -- one looking like a great mournful St. Bernard, the other a Pekinese with squashed-up features. Their clothing was luminous. The one on the left wore bright green trousers with a blue jacket. The other one wore blue trousers and a striped green top.

"I'm PEEK," announced the Pekinese with the green trousers.

"I'm POKE," said the St. Bernard on the right.

"You'll have to choose, you know," asserted Peek.

"This is a very exclusive OR gate," added Poke, "no fuzzy logic here."

"Once you're in, you're in," affirmed Peek. "If you get it wrong first time there's no second chance."

"Vice versa and conversely," echoed Poke: "once you're out, you're out."

"And you had better be quick about it," concluded Peek.

Ascii looked puzzled.

"I know what you're thinking," said Peek; "but it isn't so, nohow."

"Contrariwise," continued Poke, "if it was so, it might be; and if it were so, it would be; but as it isn't, it ain't. That's logic."

Ascii wondered what would happen if he made the wrong choice.

"If you try to enter through the exit, the penalty is underflow," stated Peek ominously.

"Otherwise," exclaimed Poke, "it's overflow if you leave through the entrance!"

"Bitwise," growled Peek, "it's logical negation for you if you exceed the time limit."

"Affirmative," barked Poke in counterpoint.

"Ditto," shouted Peek.

"Ditto, ditto," cried Poke.

Ascii hesitated.

"Come on then," urged Peek, "which is it to be?"

"Left or right?" asked Poke.

"Head or tail?" enquired Peek.

"It's now or never," declared Poke.

"Or else." threatened Peek.

There was really no reason for preferring one way to the other.

"I'll give you a clue," offered Peek magnanimously. "It's cheating, but I'm in a good mood today. If you can solve this riddle, we'll tell you the right way."

"Riddles cost extra," added Poke gravely. "Difficult ones cost double. You can pay at the turnstile on your way through."

"Here you are then," said Peek: "what goes backwards and forwards, sounds like a bicycle, but never stops?"

Ascii was dumbfounded. It seemed a very hard one to him.

"I suppose you think that's too complex," said Peek, after he'd been silent awhile.

Ascii nodded.

"Well it isn't, you know. I'll explain: we define a thing as 'grue' if it is green on alternate Thursdays and turns blue at other times. We call it 'bleen' if it is blue on alternate Thursdays and green at all other times. It appears that these are very complex definitions. But it is really green which has a complex meaning. What we call 'green' is actually something that is grue on alternate Thursdays and bleen the rest of the time."

"Likewise," agreed Poke. "Look at my shirt for instance. Now do you understand?"

Ascii was as baffled as ever.

"I'd better give you another hint, then," said Peek. "You're not trying hard enough."

"Wait a moment," interjected Poke, catching hold of his companion's sleeve. He had just noticed something. "He's got the spots."

Peek observed him intently. Ascii resembled nothing so much as 101 dalmatians. "Help!" he cried, "he's gone gigotic!"

Turning grue and bleen by turns with fear, the pair of them collided into each other, then picked themselves up, and scattered in all directions.

- Which door should he take?
- What goes backwards & forwards, sounds like a bicycle, and never stops?