Zero Page Technology

Part I: Zero Page Technology

In the humming neon lab of Resonance Laboratories' Epsilon Containment Facility, two engineers in white coats stood over the prototype board, its copper traces glowing like angry circuitry veins.

Dr. Vance Halberg, sleeves rolled up, jabbed at the tiny SRAM chip with his No. 2 Mechanical Pencil. "We have more than the 256 bytes in bank-zero, Sanders! Zero-page addressing is increasing the die size. It's pushing the thermal envelope. You know we don't understand this technology. Where it came from, we can't even– We have to remove the opcodes. It's too dangerous."

Dr. Issac Aaron "Sanders" Korr might have looked absent-minded but he spoke with a sense of urgency and concern mixed with alternating impatience and self-reflection. "The liminal phase variance is within tolerance levels. We will just have to adjust the lightplates. At least, I think we have to adjust the lightplates."

Dr. Halberg glared. "Zero-page is dangerous. We don't know what it can do. Instant access! One byte of operand! It's practically teleportation-level latency!"

Izzy put down the small box labeled "SD-0064". "Stellar Dynamics gave us this sample of the material," he said, gesturing towards the network of laser beams in the lab, simulating the new circuit design. "We now have a 16 bit unified memory pointer — a proper 16-bit register! You can address anything — Clean, scalable, no extra opcodes. It's built using our new research data on the sample; these new registers will allow you to access it using zero page technology. At least, the 8 bit parts will; (Dr. Korr absent-mindedly stops talking for a moment as he leans forward and makes some adjustments to the reflective glass plates guiding the maze-like network of lasers with a scientific-looking tool of some sort resembling a tiny screwdriver. Wait, no, it's literally a tiny screwdriver). Well Hally, Go ahead, you can flip the switch now. I'm eager to see if the new sample fits.

Korr hesitated, muttering, "We have to reroute the power rails. Dr. Magnusberg is not going to like this new design. Our mutual friend? You know who I'm talking about. I warned you about him."

"We have to run the experiment now or the sample will degrade. It's now or never. Put on your energy goggles. I'm going to throw the switch." Vance and Izzy put on their dark laser-protective goggles and Izzy threw the switch. "Initializing in five, four, three, two, …"

The office lights flickered ominously as the laser surged with new power.

Somewhere in the walls, a capacitor groaned.

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RESEARCH NOTES: DR. ISSAC A. KORR

SUBJECT: SAMPLE SD-0064

* The Sample appears to resonate somewhere near 1mhz — although some
instructions take 2 or even 3 cycles to operate
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* Relics of what appears to be an ancient memory-pointer design still
present in the architecture, available with some commands
* New registers and instructions within tolerance levels – work inter-
changeably with the old ones.
* Processor SDC 8510 stable, phase variance within liminal threshold.
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