

## THE COMPUTER CORNER

### No. 182: Several Things

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Ed Rate, AA9W, had an interesting problem when he turned on his computer recently. His machine would not boot and a "fan error" message appeared on the screen. Nothing he did would let him get past the error message, including several more attempts to boot.

First, this message shows that Ed had a very good quality motherboard with very high quality programming in the BIOS (Basic Input Output System). The BIOS lives in a chip on the motherboard. One of the jobs of the BIOS is to check the hardware at boot time to make sure everything is working OK. The BIOS had spotted problems with the fan that sits on top of the heatsink on the Central Processing Unit (the main, expensive chip found in every machine), so it halted the boot process, just as it should. If the boot process had continued with no fan running, the temperature of the CPU would have gone up quickly, burning it out to the tune of as much as several hundred dollars for a replacement. Ed did the correct thing – he shut down the machine and told me of the problem.

I told him to turn off and unplug the computer. Then to open the case and give all the fans a thorough vacuuming followed by a quick couple of shots of canned air (hold the fan blades if you ever do this so you don't spin them past their intended speed, which can damage the fan). I told him to also blow out the fins on the heat sinks. He did it all. The machine then booted normally and he was back in business.

If the desktop continues to be around in future years, some smart manufacturer will include a hardware-generated blast of air to clear fans and heat sinks of dust bunnies. But until that happens, cleaning your machine is up to you. Previous articles in this series have covered the details of how to do it. Don't neglect this cleaning or it could cost you big bucks!

I can't always come up with an answer to every question, and Ed gave me another puzzlement that fits this category. He related that he has two network icons in his desktop tray that blink when he is on the web. "Which one is for incoming data and which is for outgoing" Ed asked. The answer is that I have no idea. Different manufacturers do different things with their software, and to start to answer this you have to find out what brand and model of network adapter you have. You can do this from the Control Panel, select System and then Device Manager, Network Adapters and the manufacturer will appear. I just did it in my machine to find that mine is a Realtek PCIe GBE Family Controller. Once you have the brand and model in hand, do a Google search for the manufacturers web site. If the information is not easily obtainable from the web site, email the manufacturer.

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*"I have traveled the length and breadth of this country and talked with the best people, and I can assure you that data processing is a fad that won't last out the year."*

--The editor in charge of business books for Prentice Hall, 1957