

Linux - The Hole Hawg

THE HOLE HAWG OF OPERATING SYSTEMS

by Neal Stephenson

Linux has always lurked provocatively in the background of the operating system wars, like the Russian Army. Most people know it only by reputation, and its reputation, as the Dilbert cartoon suggests, is mixed. But everyone seems to agree that if it could only get its act together and stop surrendering vast tracts of rich agricultural land and hundreds of thousands of prisoners of war to the onrushing invaders, it could stomp them (and all other opposition) flat.

It is difficult to explain how linux has earned this respect without going into mind-smashing technical detail. Perhaps the gist of it can be explained by telling a story about drills.

The [Hole Hawg](#) is a drill made by the Milwaukee Tool Company. If you look in a typical hardware store you may find smaller Milwaukee drills but not the Hole Hawg, which is too powerful and too expensive for homeowners. The Hole Hawg does not have the pistol-like design of a cheap homeowner's drill. It is a cube of solid metal with a handle sticking out of one face and a chuck mounted in another. The cube contains a disconcertingly potent electric motor. You can hold the handle and operate the trigger with your index finger, but unless you are exceptionally strong you cannot control the weight of the Hole Hawg with one hand; it is a two-hander all the way. In order to fight off the counter-torque of the Hole Hawg you use a separate handle (provided), which you screw into one side of the iron cube or the other depending on whether you are using your left or right hand to operate the trigger. This handle is not a sleek, ergonomically designed item as it would be in a homeowner's drill. It is simply a foot-long chunk of regular galvanized pipe, threaded on one end, with a black rubber handle on the other. If you lose it, you just go to the local plumbing supply store and buy another chunk of pipe.

During the Eighties I did some construction work. One day, another worker leaned a ladder against the outside of the building that we were putting up, climbed up to the second-story level, and used the Hole Hawg to drill a hole through the exterior wall. At some point, the drill bit caught in the wall. The Hole Hawg, following its one and only imperative, kept going. It spun the worker's body around like a rag doll, causing him to knock his own ladder down. Fortunately he kept his grip on the Hole Hawg, which remained lodged in the wall, and he simply dangled from it and shouted for help until someone came along and reinstated the ladder.

I myself used a Hole Hawg to drill many holes through studs, which it did as a blender chops cabbage. I also used it to cut a few six-inch-diameter holes through an old lath-and-plaster ceiling. I chucked in a new hole saw, went up to the second story, reached down between the newly installed floor joists, and began to cut through the first-floor ceiling below. Where my homeowner's drill had labored and whined to spin the huge bit around, and had stalled at the slightest obstruction, the Hole Hawg rotated with the stupid consistency of a spinning planet. When the hole saw seized up, the Hole Hawg spun itself and me around, and crushed one of my hands between the steel pipe handle and a joist, producing a few lacerations, each surrounded by a wide corona of deeply bruised flesh. It also bent the hole saw itself, though not so badly that I couldn't use it. After a few such run-ins, when I got ready to use the Hole Hawg my heart actually began to pound with atavistic terror.

But I never blamed the Hole Hawg; I blamed myself. The Hole Hawg is dangerous because it does exactly what you tell it to. It is not bound by the physical limitations that are inherent in a cheap drill, and neither is it limited by safety interlocks that might be built into a homeowner's product by a liability-conscious manufacturer. The danger lies not in the machine itself but in the user's failure to envision the full consequences of the instructions he gives to it.

A smaller tool is dangerous too, but for a completely different reason: it tries to do what you tell it to, and fails in some way that is unpredictable and almost always undesirable. But the Hole Hawg is like the genie of the ancient fairy tales, who carries out his master's instructions literally and precisely and with unlimited power, often with disastrous, unforeseen consequences.

Pre-Hole Hawg, I used to examine the drill selection in hardware stores with what I thought was a judicious eye, scorning the smaller low-end models and hefting the big expensive ones appreciatively, wishing I could afford one of them babies. Now I view them all with such contempt that I do not even consider them to be real drills--merely scaled-up toys designed to exploit the self-delusional tendencies of soft-handed homeowners who want to believe that they have purchased an actual tool. Their plastic casings, carefully designed and focus-group-tested to convey a feeling of solidity and power, seem disgustingly flimsy and cheap to me, and I am ashamed that I was ever bamboozled into buying such knickknacks.

It is not hard to imagine what the world would look like to someone who had been raised by contractors and who had never used any drill other than a Hole Hawg. Such a person, presented with the best and most expensive hardware-store drill, would not even recognize it as such. He might instead misidentify it as a child's toy, or some kind of motorized screwdriver. If a salesperson or a deluded homeowner referred to it as a drill, he would laugh and tell them that they were mistaken--they simply had their terminology wrong. His interlocutor would go away irritated, and probably feeling rather defensive about his basement full of cheap, dangerous, flashy, colorful tools.

linux is the Hole Hawg of operating systems, and linux hackers, like Doug Barnes and the guy in the Dilbert cartoon and many of the other people who populate Silicon Valley, are like contractor's sons who grew up using only Hole Hawgs. They might use Apple/Microsoft OSes to write letters, play video games, or balance their checkbooks, but they cannot really bring themselves to take these operating systems seriously.

