

So You Wanna Be a Cowboy

Tex Curtis

"Mommies don't let your babies grow up to be cowboys, Don't let 'em pick keyboards and drive an old VAX, Make 'em be doctors and lawyers, not hacks."

— with apologies to Willie Nelson

Every morning during my youth a banner atop the *Fort Worth Star-Telegram* would remind me that I was growing up "Where the West Begins." A strong wind blowing through north Fort Worth would remind the rest of

Cowtown that the old Chisholm Trail now ended in the cattle yards just across the Trinity River from downtown. Every year during the Southwestern Exposition and Fat Stock Show the public schools would host a Ranch Day, and all the kids could come to school in their cowboy or cowgirl getup. Many of the kids had ridden horses since they were toddlers, and some harbored thoughts of owning a ranch and being a cowboy when they grew up.

Few, probably none, became real cowboys. Even so, those that became programmers found an outlet for their childhood fantasies. They traded a million acres for a million pixels and rued the core dump more than the cold damp. Yet childhood dreams die hard, and kids who rarely roughed it in the backyard still had an image of themselves to fulfill. It was an image born from

watching John Wayne ("the Duke") and interminable TV Westerns. It was an image of the lone hero struggling through the night against impossible obstacles to save the (pick one(town, herd, girl)). The first time you delivered on a project from hell, you knew you had filled the boots in your mind. The Duke would be proud.

Few images seem quite so ingrained in the American psyche as that of the heroic cowboy. Hollywood raised the middle generations of the 20th century on images of a life that faded with the 19th. Madison Avenue has used nostalgia for cowboys to sell every manner of product. And too many software pundits, having become enamored with the rare wizard hacker, have venerated the "cowboy programmer."

Even urban cowboys feel that this metaphor degrades their professionalism. So how did the pundits concoct this similitude? Should they be gored by their own oxymoron?

The image of the wild, unruly cowboy evolved from occasional barroom brawls started by trail-riders in towns along the drive. A minority of cowboys engaged in these outbursts, and it was a miniscule part of the lives of those who did. Although most cowboys owned a revolver, few had the marksmanship portrayed in TV Westerns. Nevertheless, this image became popular with people, especially easterners, who had never seen a ranch or been on a trail drive. However, as Theodore Roosevelt observed in *Ranch Life and the Hunting Trail*, "Few of the outrages quoted in east-

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ern papers as their handiwork are such in reality.”

Yet this myth, now long separated from society, survives as a caricature of rowdy software cultures. So what attributes do programmers supposedly inherit from cowboys? Perhaps a cowboy programmer is one who

- works long hours alone;
- never admits uncertainty about ability or likelihood of success;
- never lets bureaucracy, especially in the form of incompetent bosses, stand in the way;
- does not have much time for a family; and
- accepts any challenge because that is the job, and you didn't sign on to herd chickens.

Such characteristics breed machismo. A programmer's machismo is not born of physical exploits, but of great programming feats accomplished over long hours under great stress. When you are young, accomplishing the impossible—whatever the cost—is a rush. When you repeat the impossible, the rush comes with a swagger. Yet when expectations of the impossible become a norm, the swagger becomes a trudge and the rush becomes resentment. A life spent indefinitely on the edge of machismo cannot be sustained, even by the Duke.

Software overtime can be overwhelming even by cowboy standards. Roundups and trail drives could involve 16- to 18-hour days. Yet the grueling hours that started with spring roundups in South Texas ended by mid-August as cattle arrived from Kansas to Wyoming. In contrast, the trail never ends for programmers in organizations glutted on excessive commitments.

Although cowboys and programmers both endured “death marches,” cowboys could not avoid them and death was not an apocryphal adjective. On the Goodnight Trail through New Mexico, and later on trails forced into western Kansas as eastern

Kansas became fenced, herds suffered 80- to 100-mile stretches without water. Often these treks were covered without stopping for several days to get the herd to water quickly. The greatest danger lay at the end when cowboys were weariest and cattle were most likely to stampede as they neared water. Whereas cowboys considered careful planning critical to surviving death marches, it is software management's occasional disdain for planning that causes them.

The daily life of the cowboy was among the least glamorous of American occupations. Cowboys were stoic and rarely complained, even when suffering excruciating pain. When evaluated on this trait the *cowboy programmer* appears at its most oxymoronic, since no programmer ever left a complaint unvoiced. Yet when they sign on for the typical death march project, programmers acquiesce to inhuman hours with a stoicism that can only emerge from the brand of professional pride that made cowboys react to heat, dust, loneliness, mosquitoes, weariness, thirst, and injuries with silence. Programmers exude a new, more complex stoicism—one with an attitude.

Programmers suffer the same social stigma that plagued cowboys. Although *cowpuncher* and *nerd* seem antipodes, they share a common perception by “more refined” folk of being introverted and just a bit odd. In appearance and manner, neither quite fit into most crowds. Both treat

sure independence over approval. Yet unlike programmers, cowboy dressed for work.

A cowboy's ensemble included chaps, broad-rimmed hats, carefully crafted boots, spurs, and even ties—well okay, bandannas. Each garment was carefully crafted for a purpose, usually to protect the cowboy from the hazards of his profession. Programmers, on the other hand, have dispensed with even the most distinctive sartorial adornment of the nerd—the pocket protector. With the passing of the fountain pen, programmers face few physical hazards requiring protective clothing. Perhaps the handgear designed to protect against carpal tunnel syndrome will become the programmer's signature apparel. Cowboys often spent more than a month's wages on embellished versions of their hats, boots, and shirts for wear on special occasions. There are no known embellishments of the programmer's daily attire.

Like programmers, cowboys have unique skills requiring long practice. As Roosevelt admonished, “Nothing can be more foolish than for an easterner to think he can become a cowboy in a few month's time...the cowboy business is like any other and has to be learned by serving a painful apprenticeship.” Similarly, programming requires years of designing, studying, and debugging programs to achieve professional stature. At least programmers don't get thrown on their backsides after each compiler error.

Although cowboys had many skills, the single skill that determined their value was roping. As Roosevelt said, “All cowboys can handle the rope...but...a really first class roper can command his own price, and is usually fit for little but his own special work.” So it is with many professions, one skill predominates the pecking order. For programmers, no skill surpasses the parsimonious blending of algorithms and data structures in constructing a computational edifice. Whether cutting cattle or code, weakness in the profession's core

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Roping dominated when cowboys had to separate specific cows from the herd (cutting) and capture them with a lariat for branding (a cowboy version of copyrighting one's property). However, the cowboy could never accomplish these tasks without the close cooperation of an exquisitely skilled cutting horse. In fact, the collaboration achieved between the cowboy and his cutting horse was as tightly attuned as that achieved by even the most aligned practitioners of pairs programming. The pinnacle of this alliance relied on little more than pressure from the cowboy's knees to guide the horse's reactions. When their relationship achieved this maturity, the cowboy could dispense with the reins, leaving both hands free for roping.

Much as for programmers, a cowboy's professional life was organized into projects—the annual cattle drives. The stages of these projects included the roundup, cutting and branding, and the trail drive. Long before fences enclosed the West, cattle grazed on open ranges. As with any open system, cattle from many ranches mingled freely. Annually they had to be rounded up and calves separated for branding. The brands were cryptic—much like programming notation—and perhaps provided an early inspiration for APL. Some calves became separated from their mothers and survived on the open range for years without being rounded up for branding. These wild, free-roving cows had a distinctive name—mavericks.

As with any project, driving cattle required cowboys to perform standard processes in well-defined roles. The trail boss rode ahead of the herd searching for water and pastures for grazing. Cowboys accepted specific herding responsibilities depending on whether they were riding at the points (front edge), swings (sides), flanks (back edges), or drags (rear). Wranglers handled the horses not currently being ridden (the remuda) and the cook dis-

pensed food, medicine, and parental advice from the chuck wagon. Cowboys that were unreliable or caused problems were usually dismissed at towns along the trail.

Certain occasions demanded disciplined coordination under great stress—stampedes. Cattle could be spooked by anything from lightening to stray roosters. During stampedes, cowboys had to spring into action already knowing their responsibilities. The best riders would gallop to the front of the herd and rein back in an attempt to slow it. Other cowboys would ride to the point and try to turn the herd, thus changing its direction and forcing it to slow. Stampedes were not stopped by heroes; they were stopped when all cowboys maintained their position and worked together to slow, turn, and control the herd. When cowboys broke discipline, someone died.

The fencing of the range and the coming of the railroad were as threatening to many cowboys as the slow decline of technologies, such as Cobol, is to programmers who are “fit for little but [their] own special work.” Cowboys, unfortunately, got no reprieve with the year 1900. Yet some adapted. Modern cowboys use helicopters and ranch management software, while dreaming of laser-guided lassos and Stetson-mounted displays. Yet, for cutting in tight corrals, there is still no substitute for skill with a lariat and a quarter horse. Similarly for cutting tight

code, fourth-generation languages and automatic code generators have not replaced talented programmers. Cowboys and programmers are both aware that they are critical for driving valuable stock.

Maybe true cowboy programmers would be good after all. Cowboys and programmers both tend to be introverts who fiercely guard their independence. Yet others must be able to work with them, especially under stress. Both have uncommon skills. Yet if they do not accept the disciplined procedures of their profession, the stock will suffer. So let's call disorderly programmers what they are—not cowboys, but mavericks.

Mavericks may have a role in research labs where they can roam about unfettered, but they do not belong on project teams whose members must depend on each other to perform reliable work on competitive schedules. Maybe mommas should encourage their budding prodigies to be more like cowboys. The Duke would be proud. ☞

Bill Curtis is one of the head honchos at TeraQuest, an outfit that works with software organizations to corral their maverick projects. He began riding horses at two and has chased mavericks on his best friend's ranch. Nevertheless, his ineptness with a lariat prioritized math over mustangs. Before signing on with TeraQuest, he rode for GE, ITT, MCC, and SEI, where he helped develop the CMM brand. He rides out of Austin, a town now more dominated by dudes than longhorns. He bunks at curtis@acm.org.

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