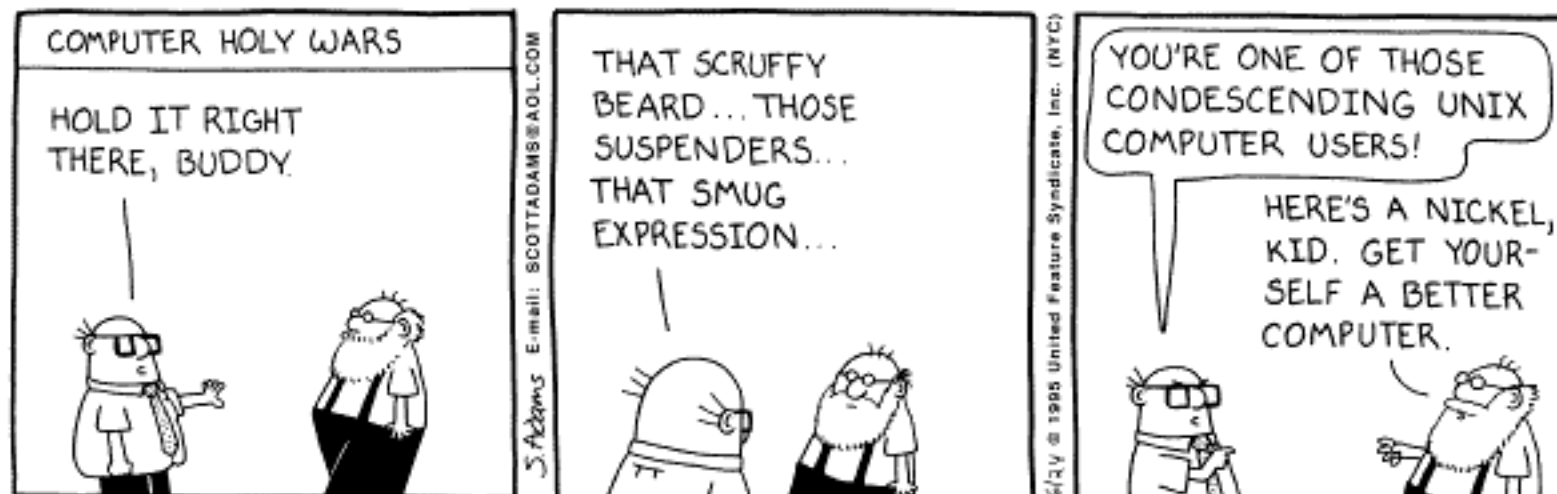


Systems Administration for Bioinformatics

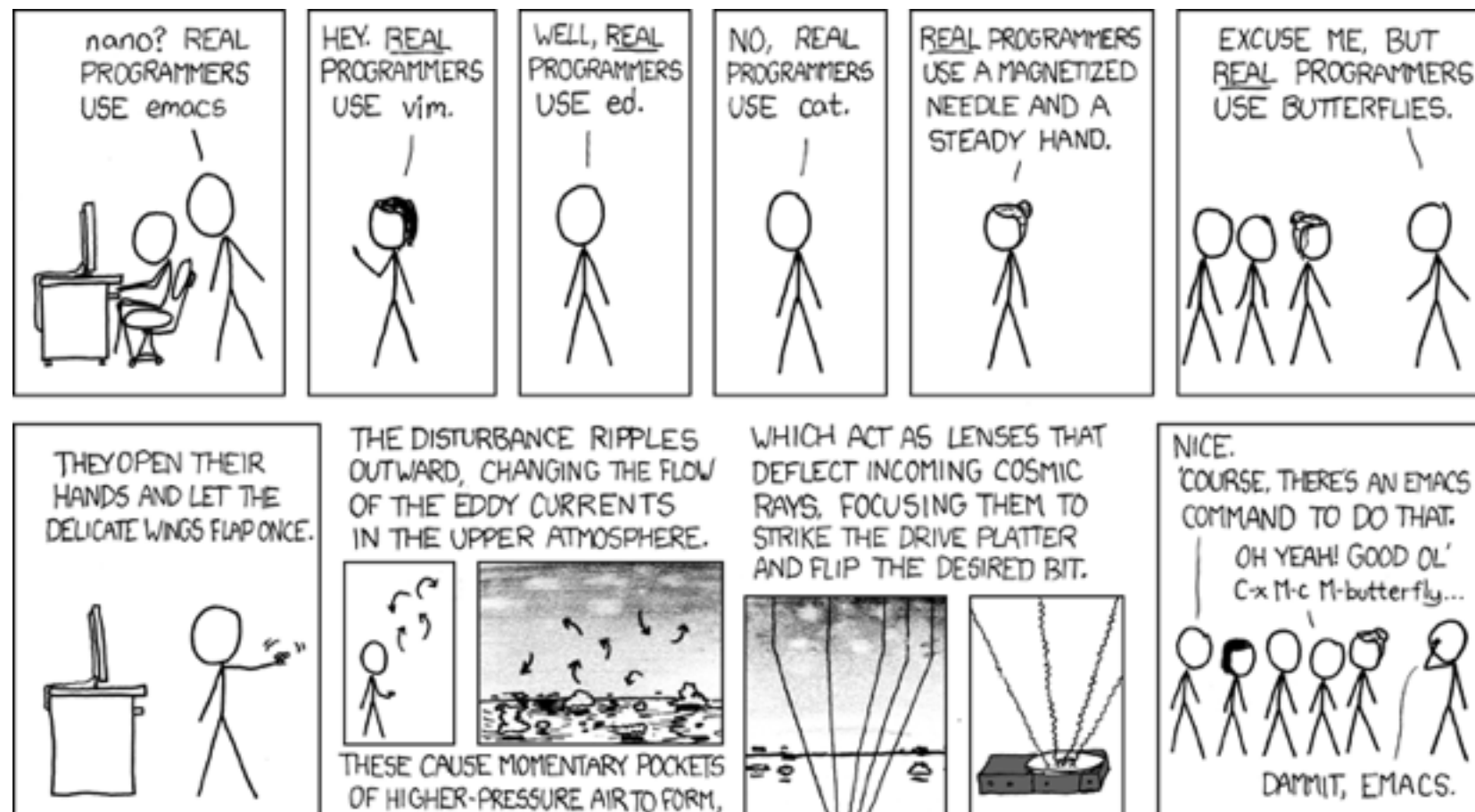
What is my operating system?

	Linux command
Operating System	<code>uname -o</code> <code>uname -a</code> (lots of other info)



Is my text editor installed?

	Linux command
Editor	which emacs which vi which nano



Is my computer “fast” enough?

	Unit of Measure	Linux command
RAM / Memory	Gigabytes (GB)	free
CPU / Processor	cores / gigahertz / architecture	cat /proc/cpuinfo grep -c processor /proc/cpuinfo uname -p
IO / Disk	Gigabytes (GB)	df -h du -sh <i>directory</i>

Why is my machine slow?

	Linux command
what's running	top htop

Compression

	extension	Linux command
compress a file	.gz .bz .zip .tar/.tgz	gzip bzip zip tar (sort of)
uncompress a file	.gz .bz .zip .tar/.tgz	gunzip bunzip unzip zcat tar (sort of)

How do I install Something?

- Read the files named “README” or “INSTALL” in the downloaded file.
- Google it
- Often distributed as .tar.gz or .tgz
- sometimes Git / svn
- many programs install using “make”.

What is a cluster?

Clusters are just a bunch of ordinary computers in which you submit jobs to a “queue” which handles distributing your job to many other computers and enforces order to keep users from interfering with each others’ jobs

How do I use my Cluster?

- Ask your sysadmin. It depends on what software is being used on your cluster
- Make your own in the cloud (starcluster)

Amazon Web Services

- You can “rent” virtual machines by the hour
- From FreeTier to \$.06/hour to \$2.50/hour.
- You select an “AMI” or image and an “instance” type.

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_GetStarted.html