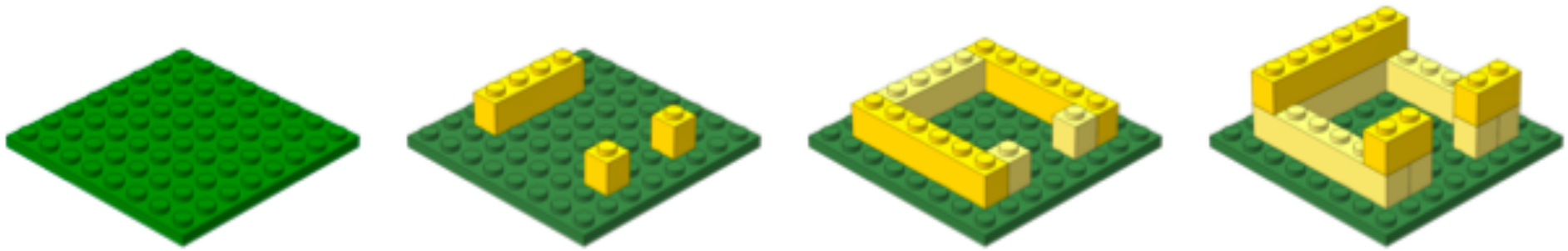

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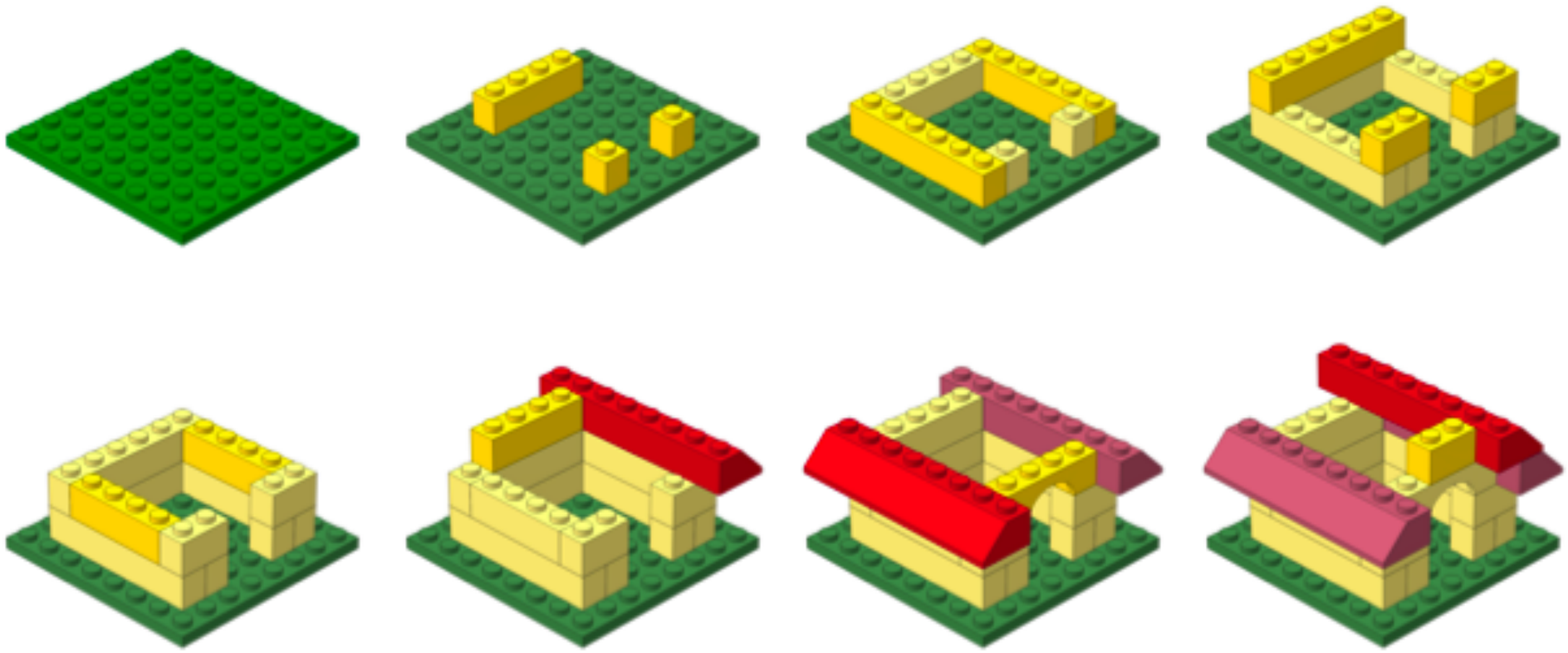
Building blocks



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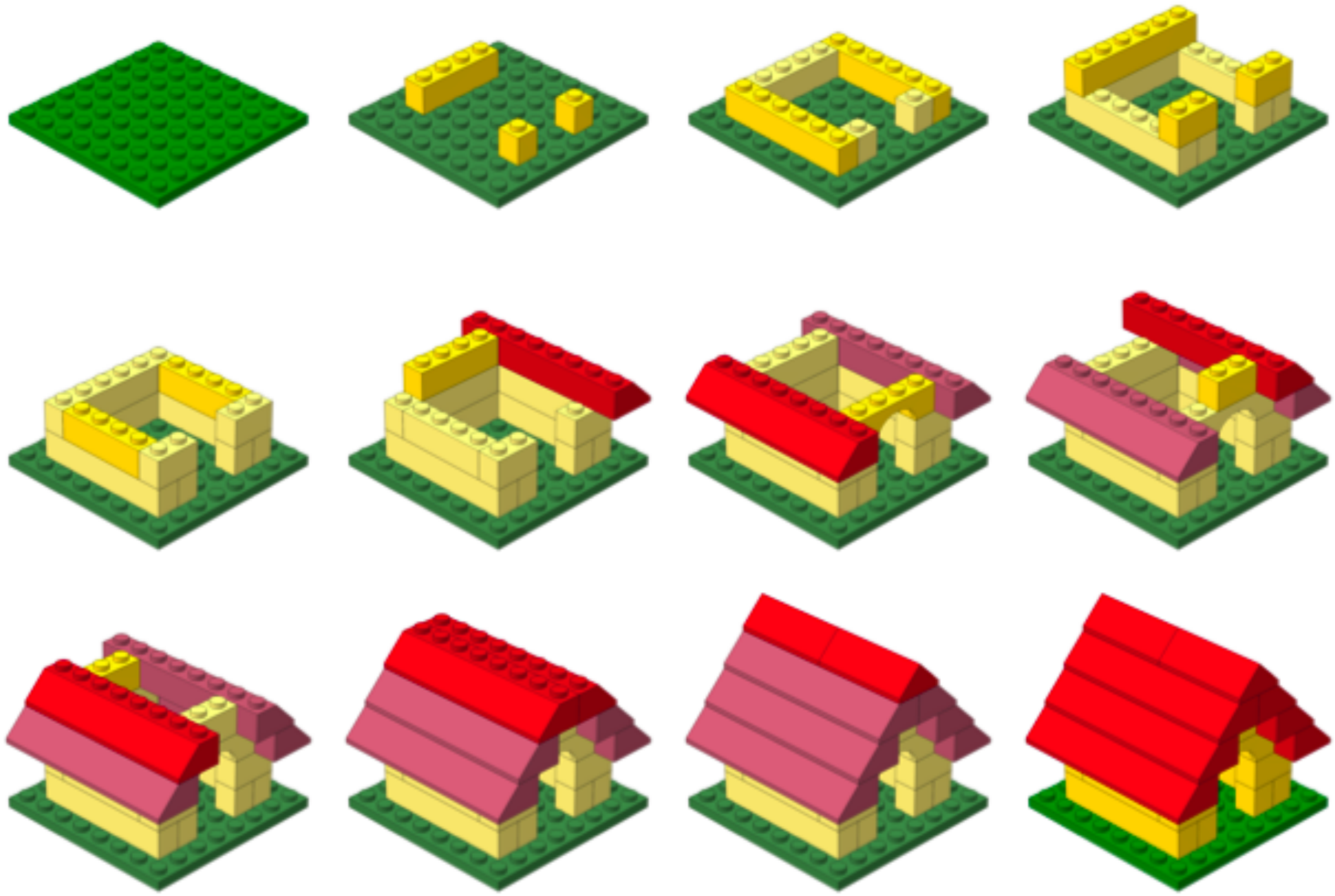
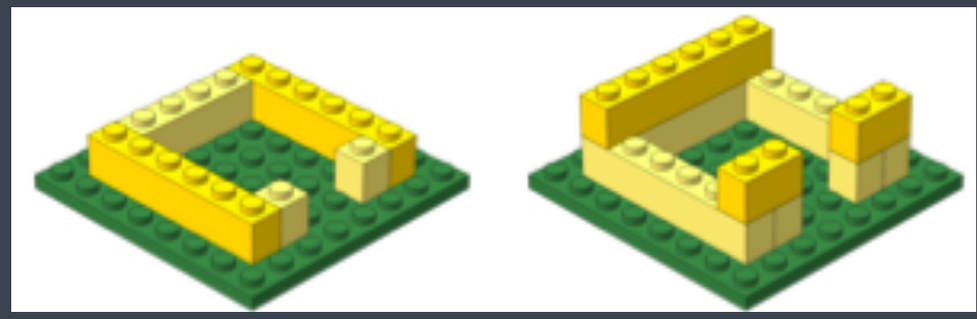
Building blocks



http://anoved.net/tag/lego/page/3/

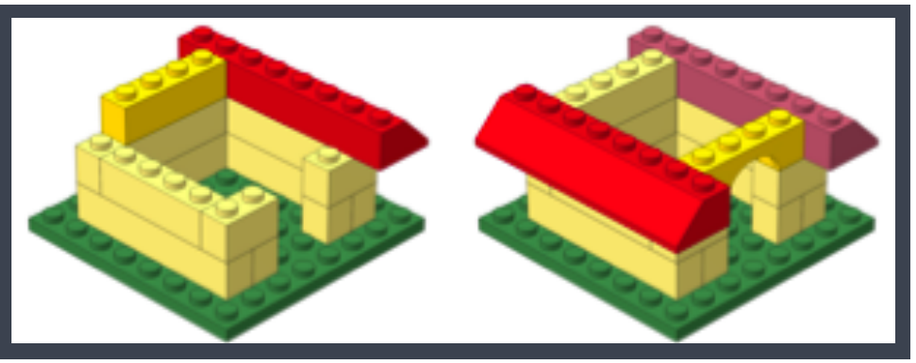
Building blocks

The Foundation!



- ✓ Unix command line interface or the Unix shell

Build on it…



✓ Unix command line interface or the Unix shell

- handle large data files
- perform repetitive tasks efficiently
- use high-performance computing environments
- perform bioinformatics analyses

http://en.wikipedia.org/wiki/Unix, http://en.wikipedia.org/wiki/Tux

What is UNIX?

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- Unix is an operating system
- It was originally developed at Bell labs in the late 60s for programmers
- Easily coordinates the use and sharing of a computer's (or a system's) resources and allows multi-user capacity, among other features

Why UNIX?

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Bioinformatics:

- A large proportion of NGS-analysis tools are created for Unix
- Computational resources that can handle large datasets require a working knowledge of Unix

Components

The Unix system is functionally organized at three levels:

- The kernel, which schedules tasks and manages storage: the brain of the system
- The shell, which connects and interprets users' commands, calls programs from memory, and executes them. *It is an interpreter that helps translate our input into computer language*
- The tools and applications, these offer additional functionality to the OS

The “shell”

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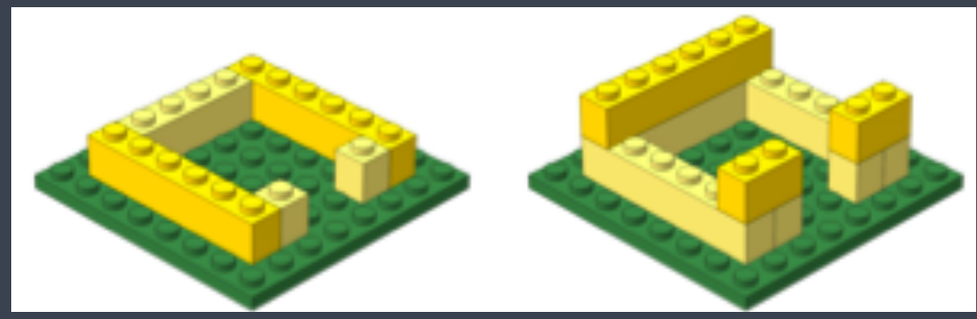
Learning Objectives



- ✓ Become comfortable with the command line interface (CLI)

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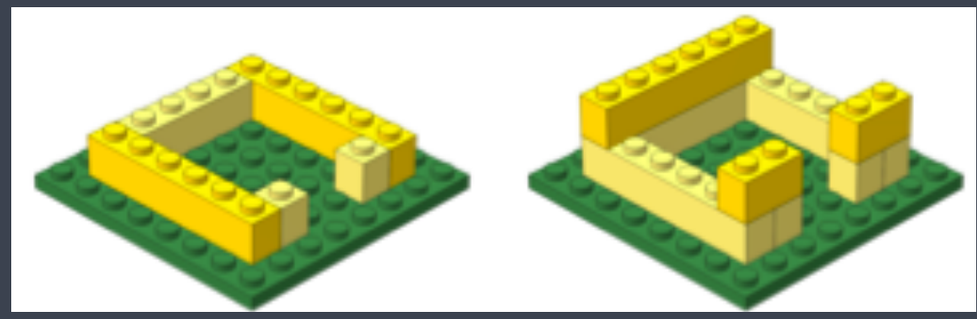

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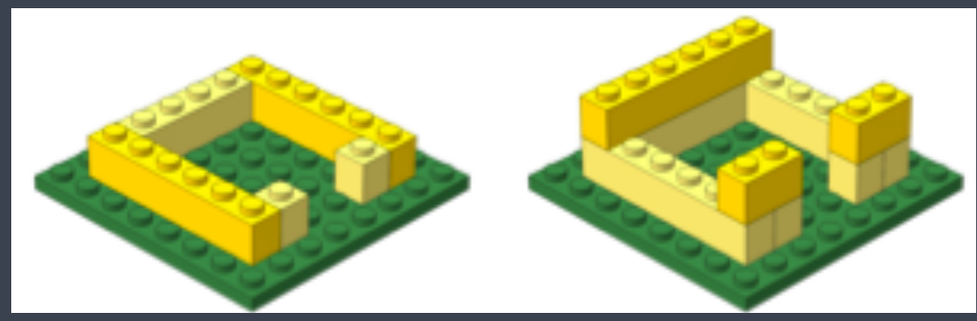

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- ✓ Use the command line to work with small and large data files

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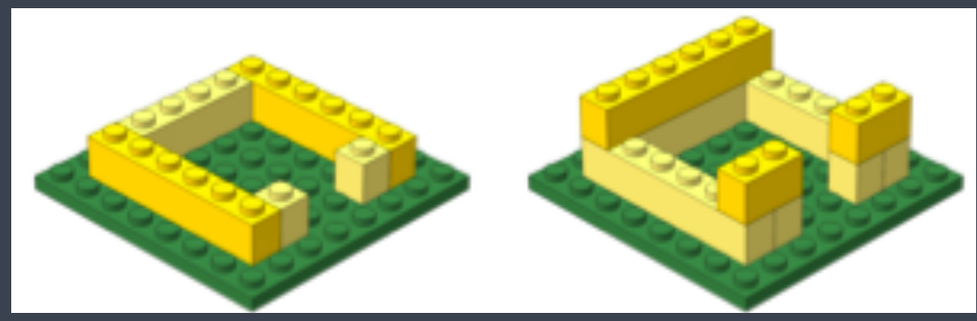

- ✓ Become comfortable with the command line interface (CLI)
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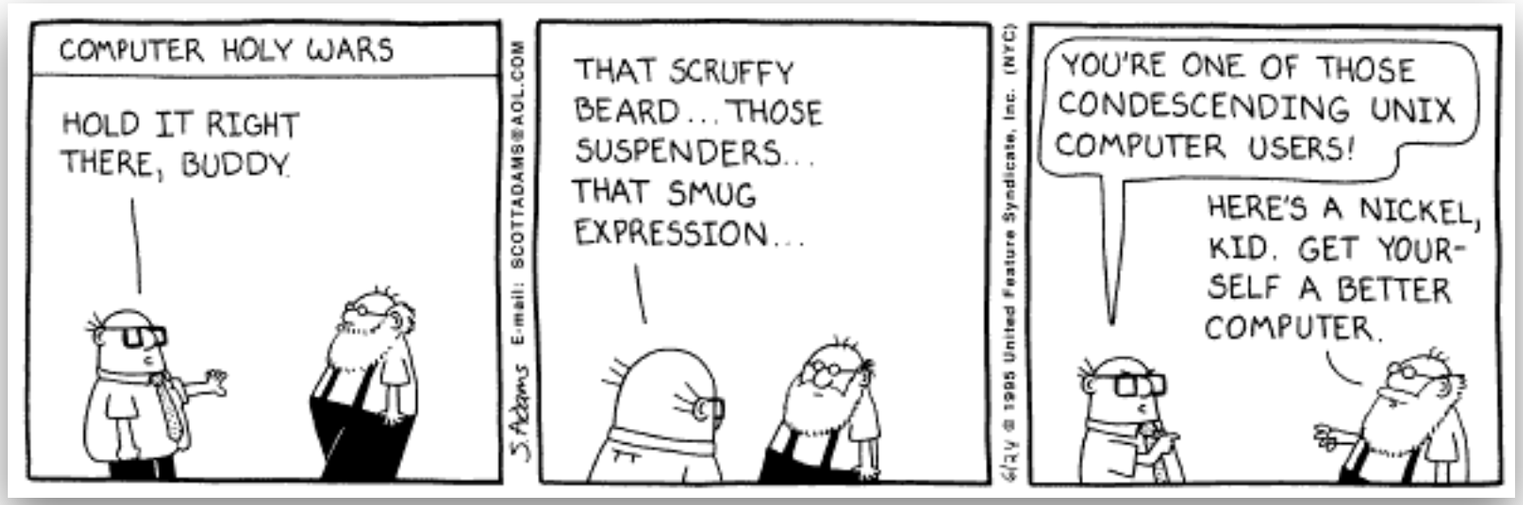
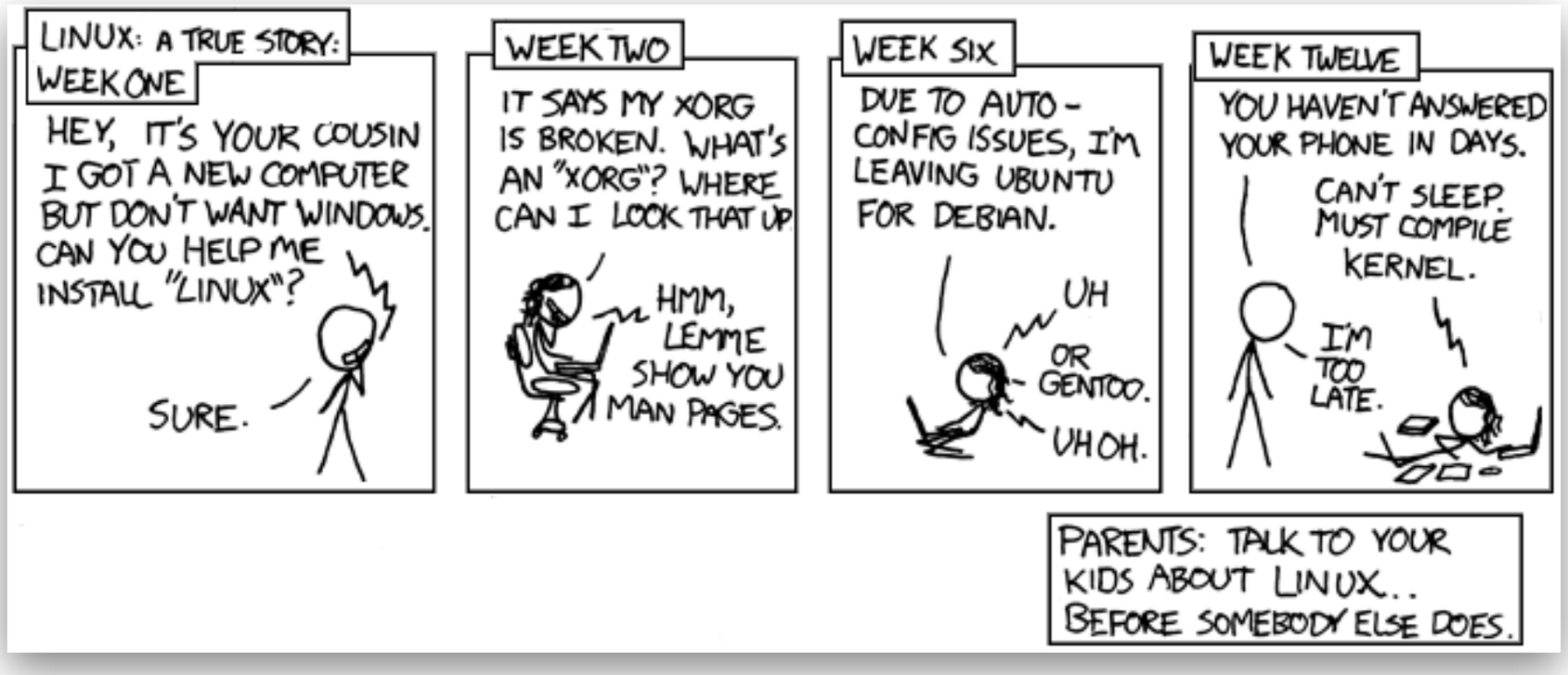
- ✓ Use the command line to work with small and large data files
- ✓ Perform repetitive tasks more efficiently


COMPUTER HOLY WARS
HOLD IT RIGHT THERE, BUDDY.
J. Adams E-mail: SCOTTADAMS@AOL.COM
THAT SCRUFFY BEARD... THOSE SUSPENDERS... THAT SMUG EXPRESSION...
©UFS 1995 United Feature Syndicate, Inc. (NYC)
YOU'RE ONE OF THOSE CONDESCENDING UNIX COMPUTER USERS!
HERE'S A NICKEL, KID. GET YOURSELF A BETTER COMPUTER.


LINUX: A TRUE STORY:
WEEK ONE
HEY, IT'S YOUR COUSIN I GOT A NEW COMPUTER BUT DON'T WANT WINDOWS. CAN YOU HELP ME INSTALL "LINUX"?
SURE.
WEEK TWO
IT SAYS MY XORG IS BROKEN. WHAT'S AN "XORG"? WHERE CAN I LOOK THAT UP
HMM, LEMME SHOW YOU MAN PAGES.
WEEK SIX
DUE TO AUTO-CONFIG ISSUES, I'M LEAVING UBUNTU FOR DEBIAN.
UH
OR GENTOO.
UH OH.
WEEK TWELVE
YOU HAVEN'T ANSWERED YOUR PHONE IN DAYS.
CAN'T SLEEP. MUST COMPILE KERNEL.
I'M TOO LATE.
PARENTS: TALK TO YOUR KIDS ABOUT LINUX.. BEFORE SOMEBODY ELSE DOES.