



"Er, What?"

Requirements, Specifications
and Reality:

Distilling Truth from Friction

-- Cat Okita

Why bother?

Theory

Practice

Reality

Why bother?

What are you trying to do?

Why are you trying to do it?

How are you going to do it?

Who's doing it?

How can you tell that you're done?

Theory

Quick'n'Dirty

Goals

Why are you doing this?

Requirements

What means that you've met the goals?

Specifications

How do you meet the requirements?

Implementation

Do the work according to the specifications

Review

Does the work match reqt's, solve problem?

Completion

Done!

Goals

Why are you doing this?

What do you want to do?

What problem(s) are you trying to solve?

Requirements

What meets the goal(s)

What is success?

What are the limitations?

Who's involved?

How can you tell that you're done?

Specifications

How do we meet the requirements

Detailed

Specific

Prescriptive

Implementation

Do Stuff!

Build

Test

Deploy

Review

Did we hit our goal?

Did we meet the requirements?

Did we follow the specifications?

Completion



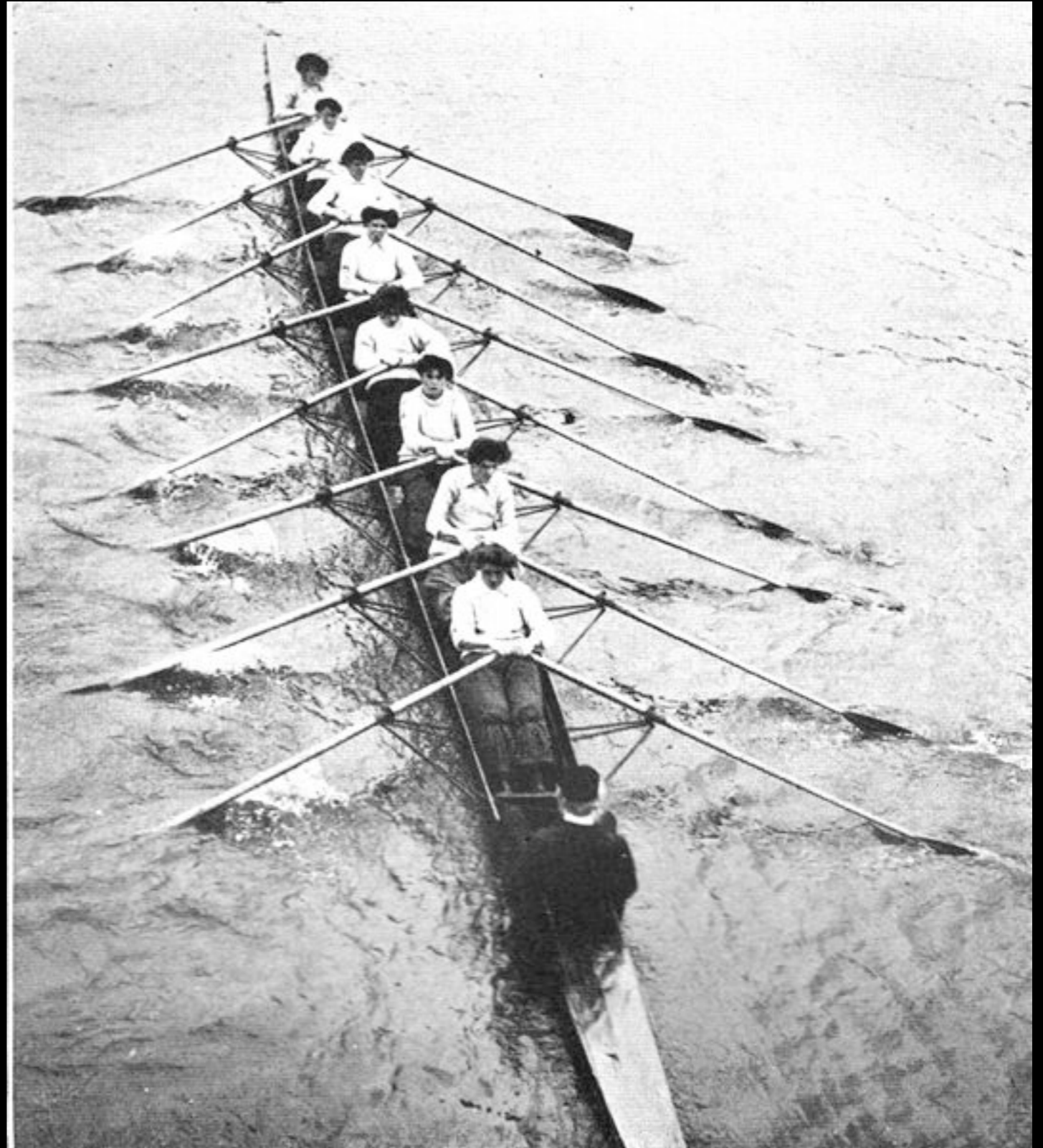
Practice

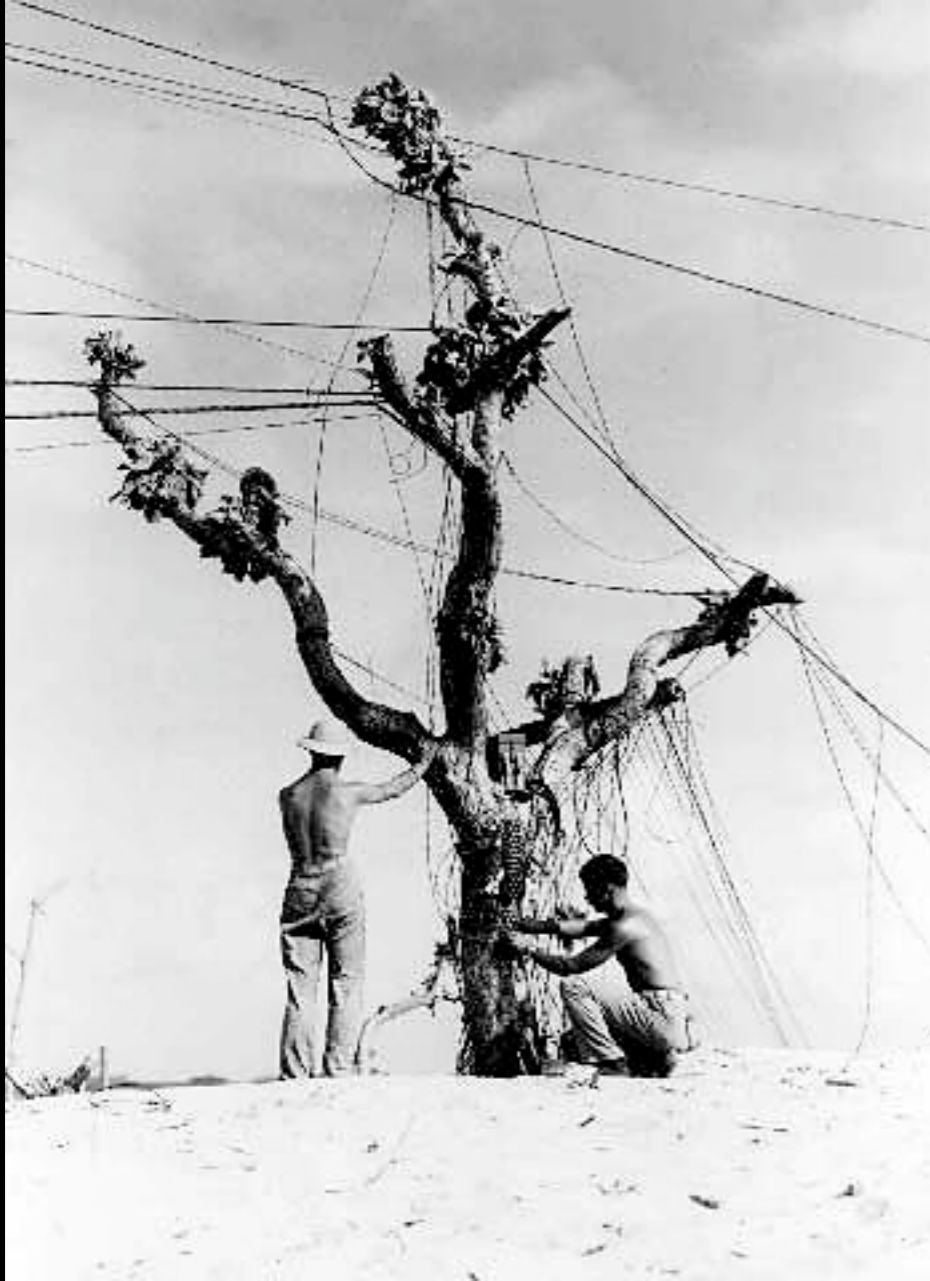
Bang for your Buck



Participate

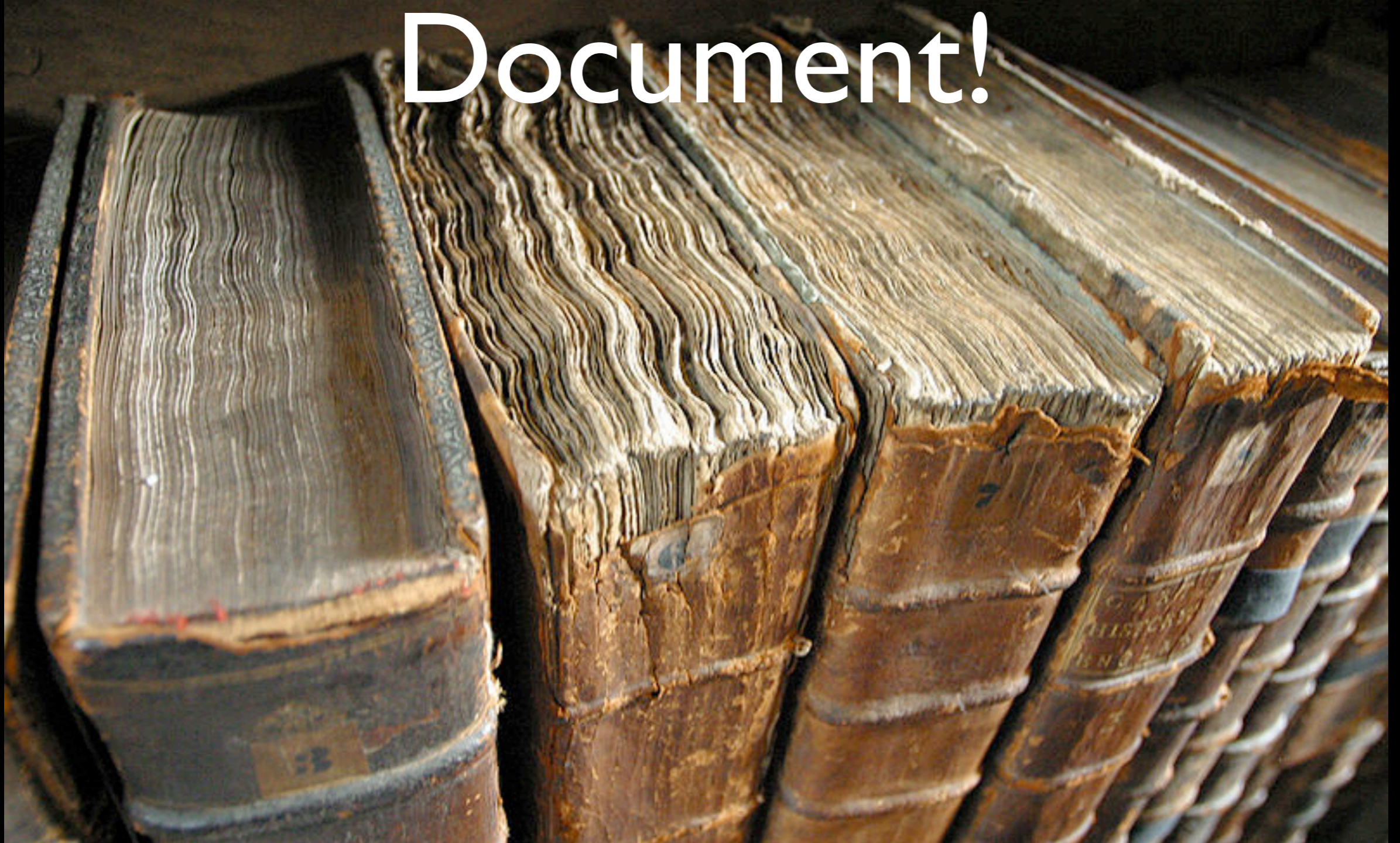
Cooperate





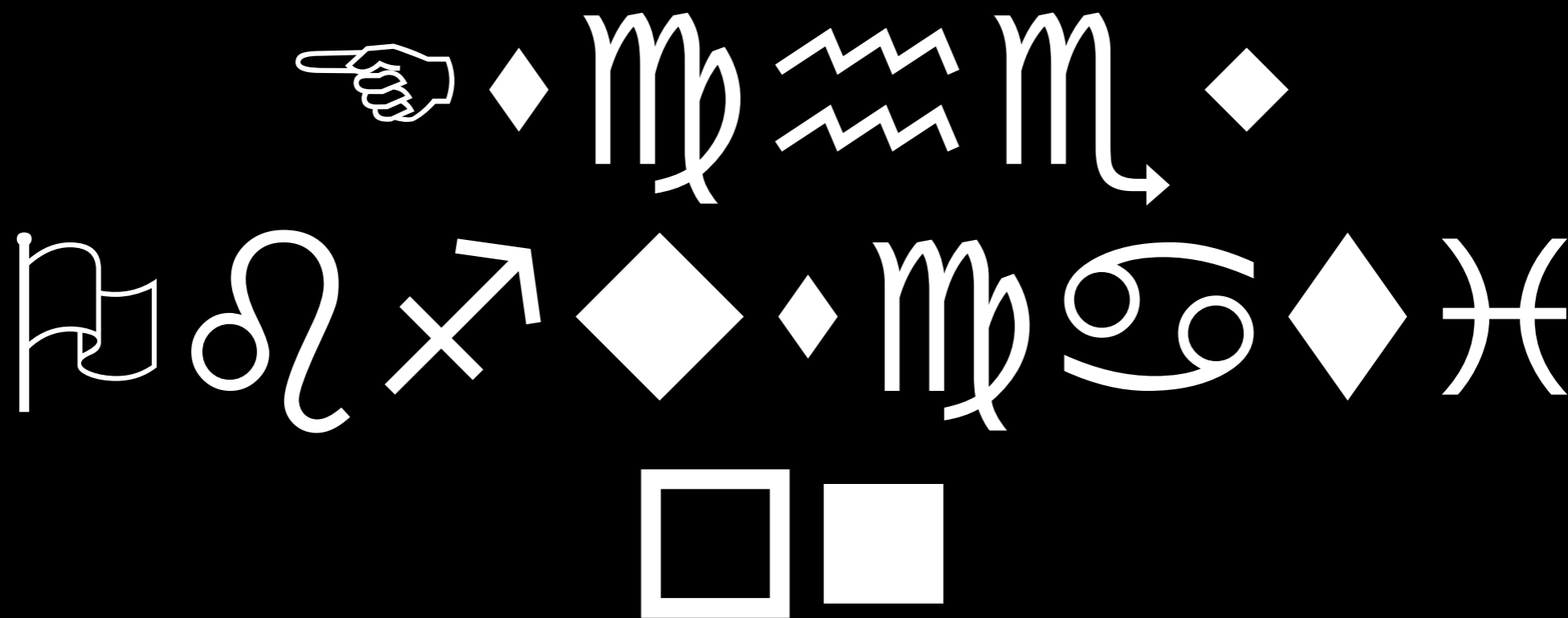
Communicate

Document, Document, Document!

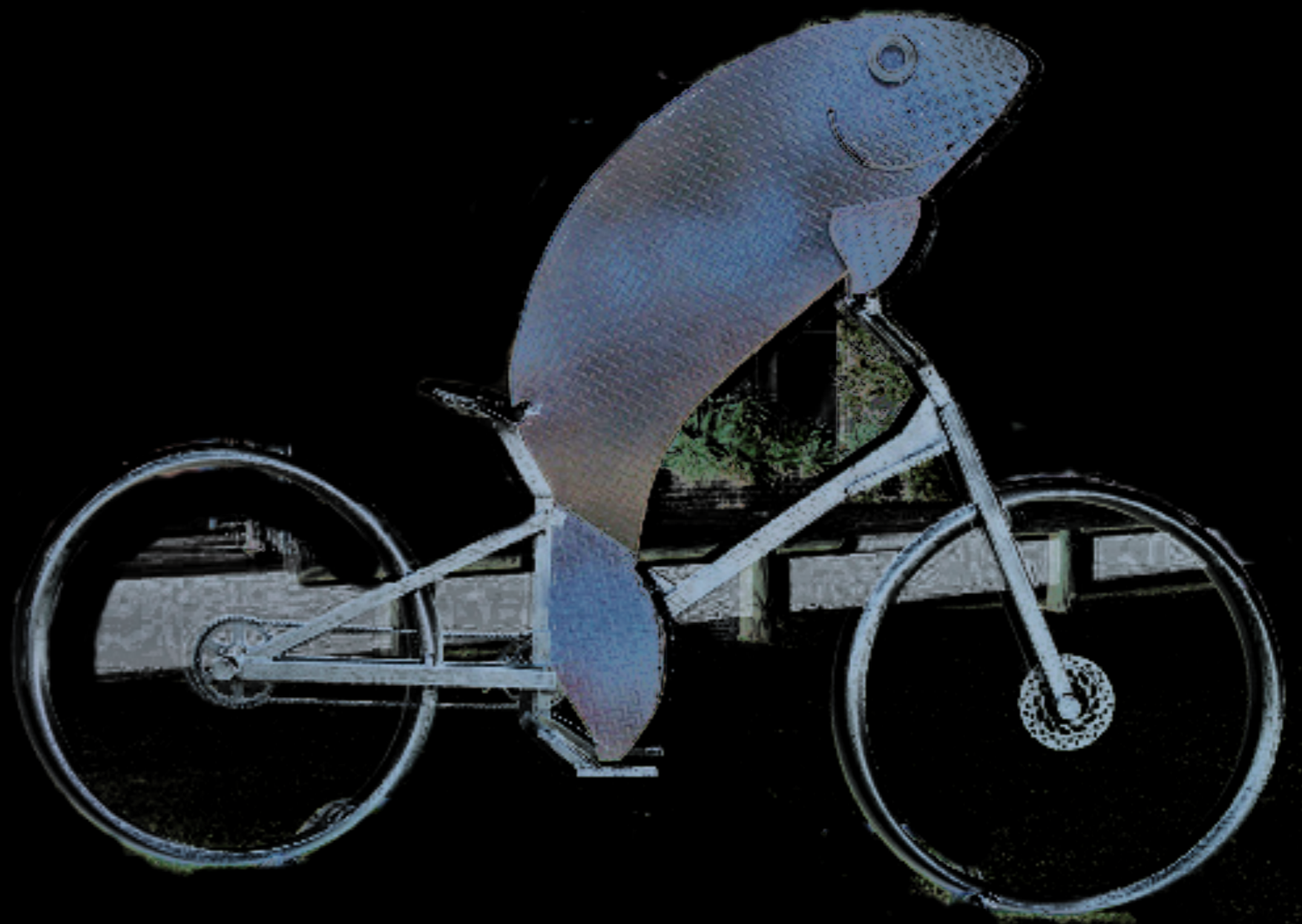


Common Ground





Appropriate



Brevity is the soul of wit

Ask, don't tell!





Agree

No Surprises



Why?

Summary

One or two short sentences that anybody can understand

- “Need to automate to do more work with less people”

vs

- “Synergize our core competencies with advanced enterprise specific COTS software to increase overall productivity while maintaining or reducing existing overhead”

What?

Clarify Goals
Define Audience
Describe Success
Set Limits

Focus

Turn goals into something useful

What will meet the goals

Audience

Who cares?

Who needs to be involved

Who are the consumers

Success

How can you tell that you've met the goal(s)

How can you tell that you're done?

Limit

Scope

People

Things

Money

Time

Realistic

“Able to recover from hardware failures in 4 hours”

VS

“Hardware must never fail”

Relevant

“Total budget of \$600,000, not including ongoing support and maintenance costs”

VS



Measurable

“Production servers must have
99.9999% uptime”

VS

“Stuff can’t break!”

Unambiguous

“Web server must serve 10,000 hits/
hour”

VS

“Good web server”

How?

Meets requirements

Stays within limits

Detailed

Specific

“Use Apache 2.x with Tomcat to serve dynamic web content”

vs

“Use a web server”

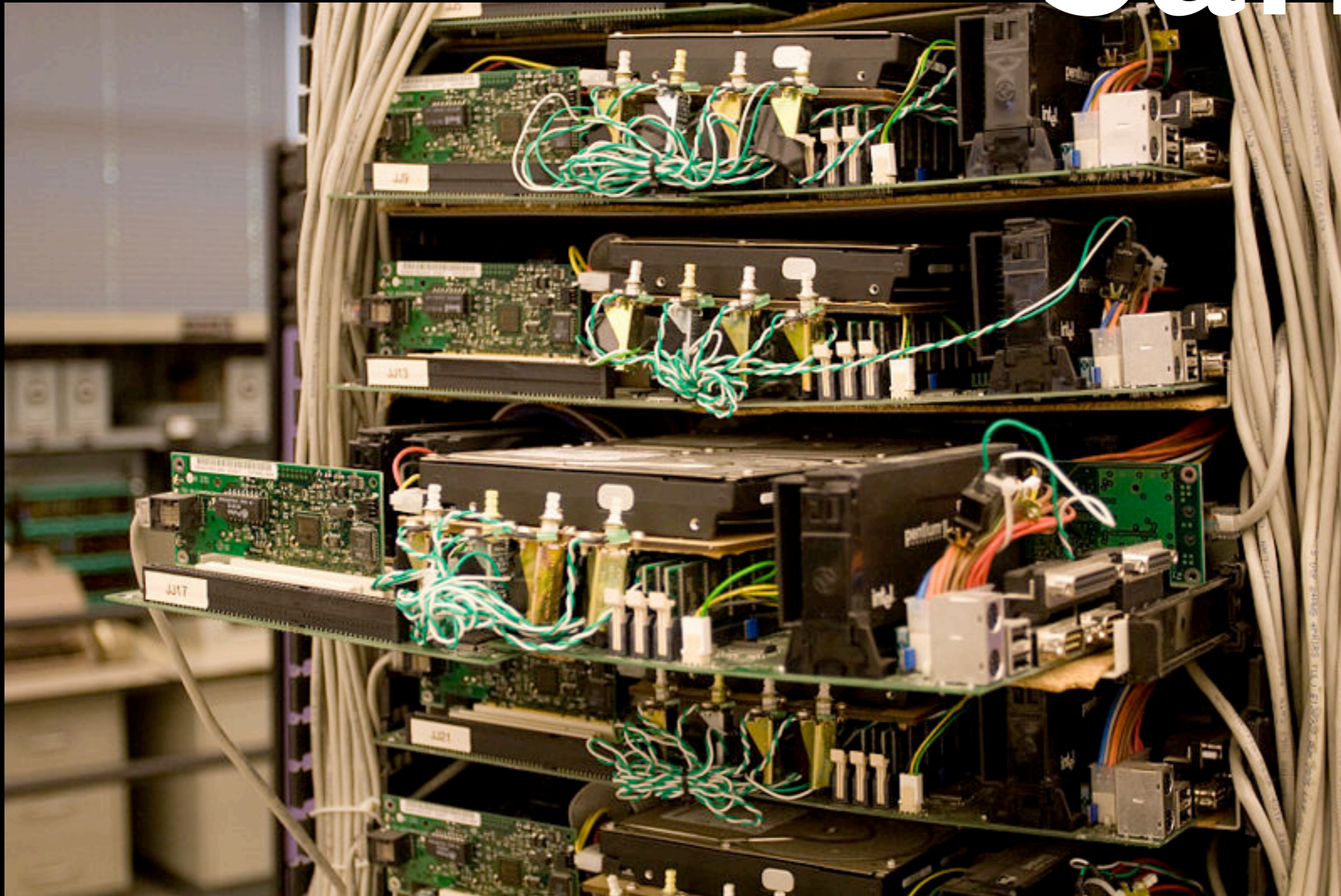
Appropriate

“The web server platform will be DL380 G6 servers with the following configuration ...”

vs

“The web server platform will be a Cray XT5...”

Sane



Where do Requirements and Specifications come from?

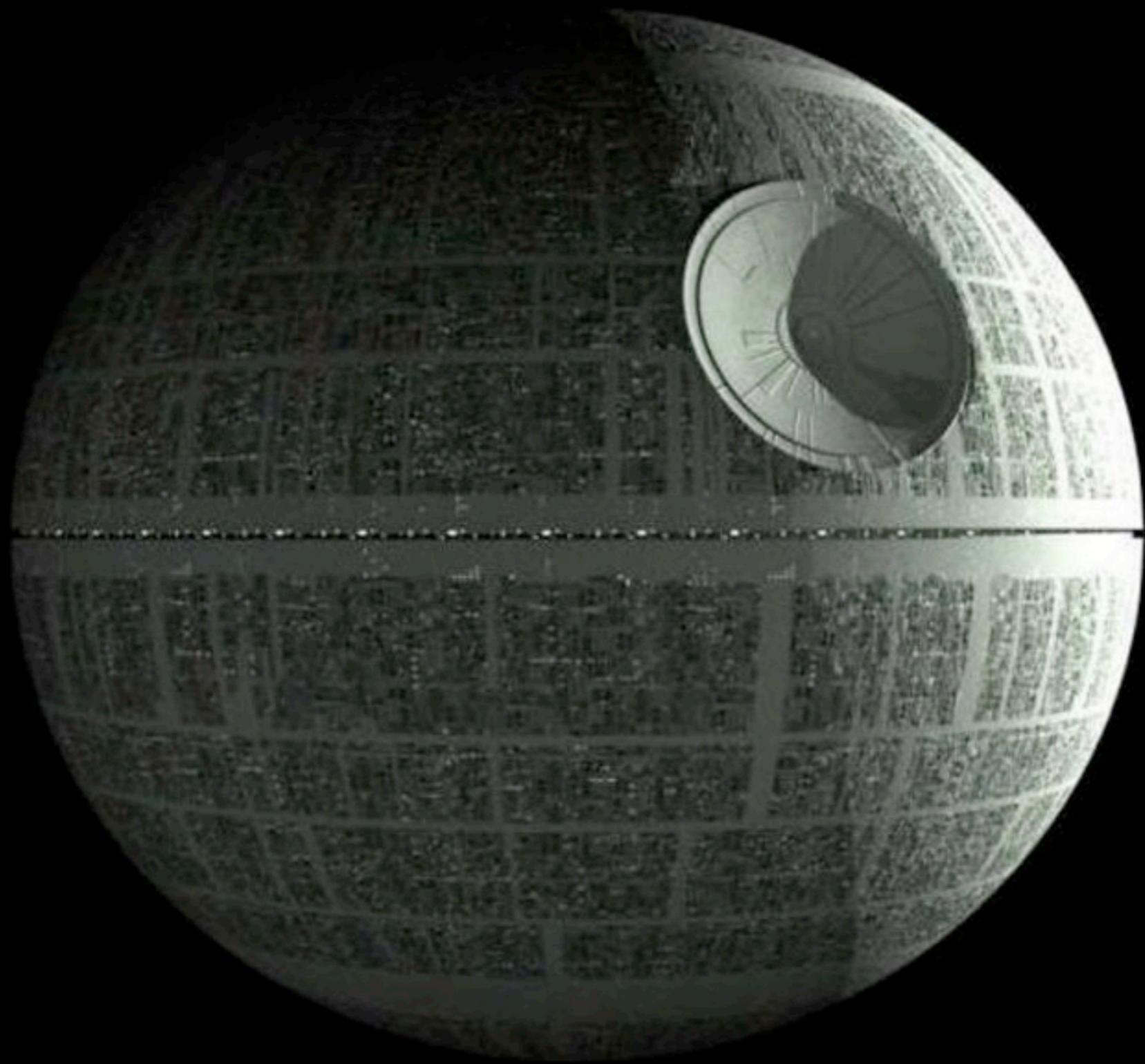


Storytime

Our Protagonists



5340
Verleih: Leopold Hauk.



Goal:
Build Death
Star



Pumpkins!

Requirement:
Use pumpkin





“Something
is Missing”



Requirement: Lights

“There’s no
space for
lights in
there!”



Requirement:
Empty Pumpkin



“Ewww!”

Specification:
Use spoon to
clean out
Pumpkin



“This spoon is not
working well. ...”

Problem:
Spoon is not
the right
tool!



“Hmmm ...”

“Here, Try this!”





Reality

Build



Buy



Borrow

Communication
Confusion
Consternation



Communication



Scope Creep

Ask Mom / Ask Dad

“I’m ignoring you ...”



Confusion

Fuzzy Language

Out of touch with Reality

Solutions looking for a Problem

Consternation



Bad Assumptions

Missing Limits

Death from Above

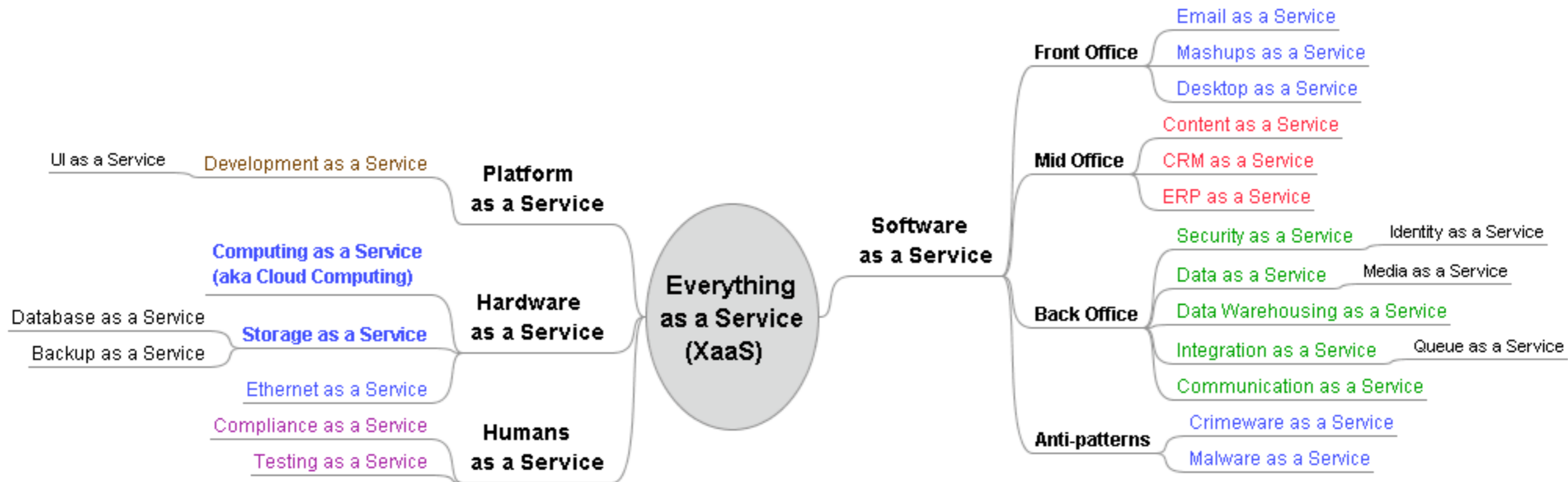
Clarify
Change
Ignore

“We’re moving everything into
the Cloud”



The Cloud ???

What's "everything"?



Author: Peter Laird, Oracle

Note: colors are only used for visual clarity and have no other meaning



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A vintage IBM computer system, likely from the 1980s, featuring a CRT monitor and a keyboard. The monitor displays a dark screen with some faint, illegible text. The IBM logo is visible on the top bezel of the monitor. The keyboard is a standard QWERTY layout with a numeric keypad on the right. The entire system is housed in a light-colored, possibly beige or white, cabinet. The image has a halftone or dithered texture.

Application Modernization

“Bring our application
management tools into the
21st century”

Who's involved?

External Contractor
System Administrators
Application Owners

Requirements

Replace legacy 3270-based application management tools with current, supported COTS software

Specifications

Windows 2003 / 2008
Click-and-drag interface

A minor technical detail ...

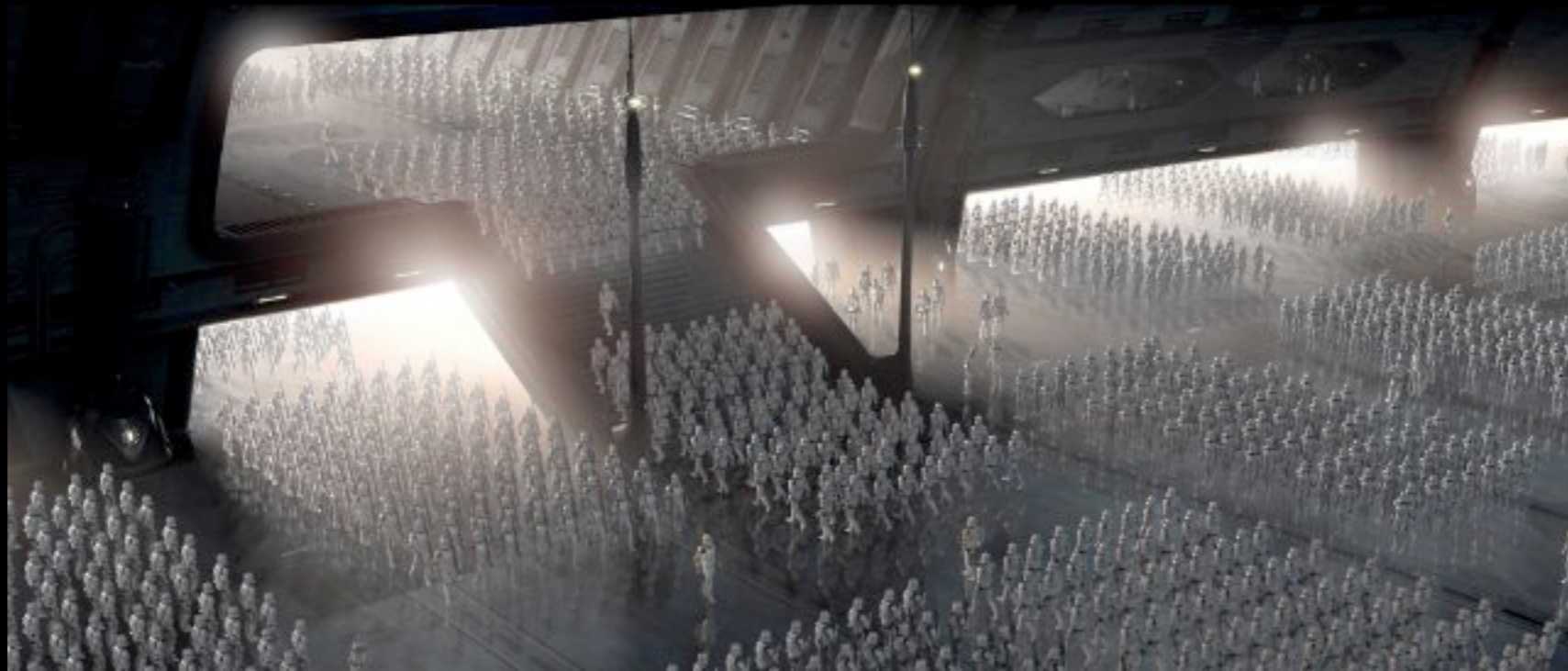
```
TTFLIGHT                               Welcome to Tanit Travel 3270

                                         1 : Add a flight
                                         2 : Get a flight details
                                         3 : Modify a flight
                                         4 : Remove a flight

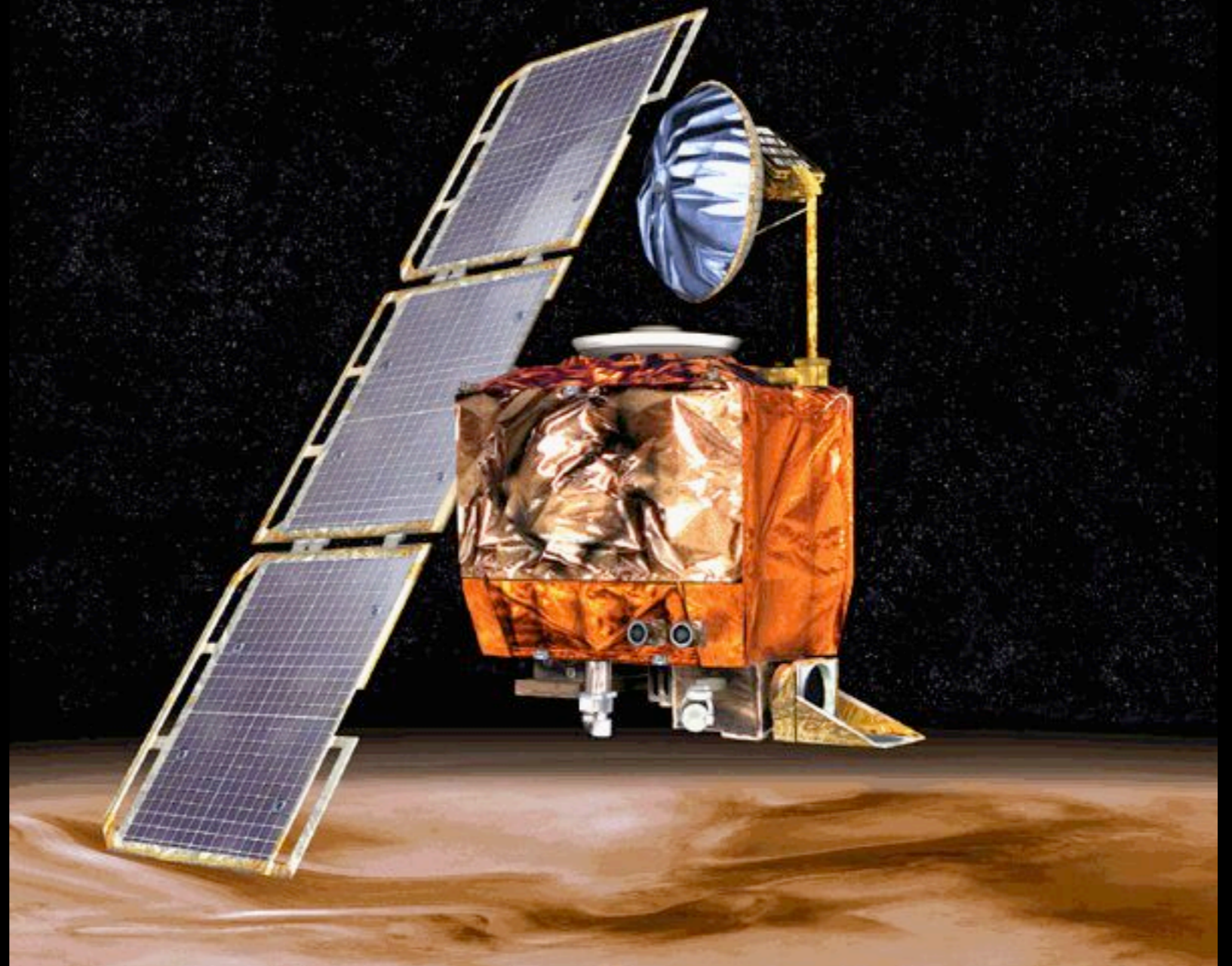
Select an option: █

Enter : Continue, PF3 : Return, PF4 : Abandon
```


Just like me



NASA Mars Climate Orbiter



A Lockheed Martin spokesperson confirmed that their engineers had been sending data in English units.

When asked whether the company was aware that NASA had been expecting metric units, the spokesperson said, "Obviously not."

http://www.space.com/missionlaunches/launches/orbiter_errorupd_093099.htm

RFPs



RFC 1149 & RFC 2549

Datacenter Cleanup



“Remove unused and decommissioned equipment from the Datacenter to reclaim power and space for future use”

Who's involved?

Systems Engineering

Network Engineering

Project Management

System & Network Operations

Requirements



Identify unused equipment

Identify decommissioned equipment

Remove identified equipment from
datacenter raised floor

Specifications

Systems and Network Operations will identify unused and decommissioned equipment by rack number, and provide a list to Facilities Management.

Facilities Management will power off and remove the equipment on the list from the datacenter raised floor.

A minor technical detail ...



Thanks to:
Noel Dickover

(<http://www.fantasypumpkins.com/carving-the-deathstar.htm>)

Questions?