

The Pragmatic Programmer applied to ABAP Development

Parabéns!

Obrigado!

OK mas, QUEM É VOCÊ?



★ Desenvolvedor de software



★ Desenvolvedor de software

★ Arquiteto de soluções



★ Desenvolvedor de software

★ Arquiteto de soluções

★ Trabalho para a Golve



★ Desenvolvedor de software

★ Arquiteto de soluções

★ Trabalho para a Golve

★ Também tenho um blog



★ Desenvolvedor de software

★ Arquiteto de soluções

★ Trabalho para a Golve

★ Também tenho um blog

★ Palestras e Treinamentos



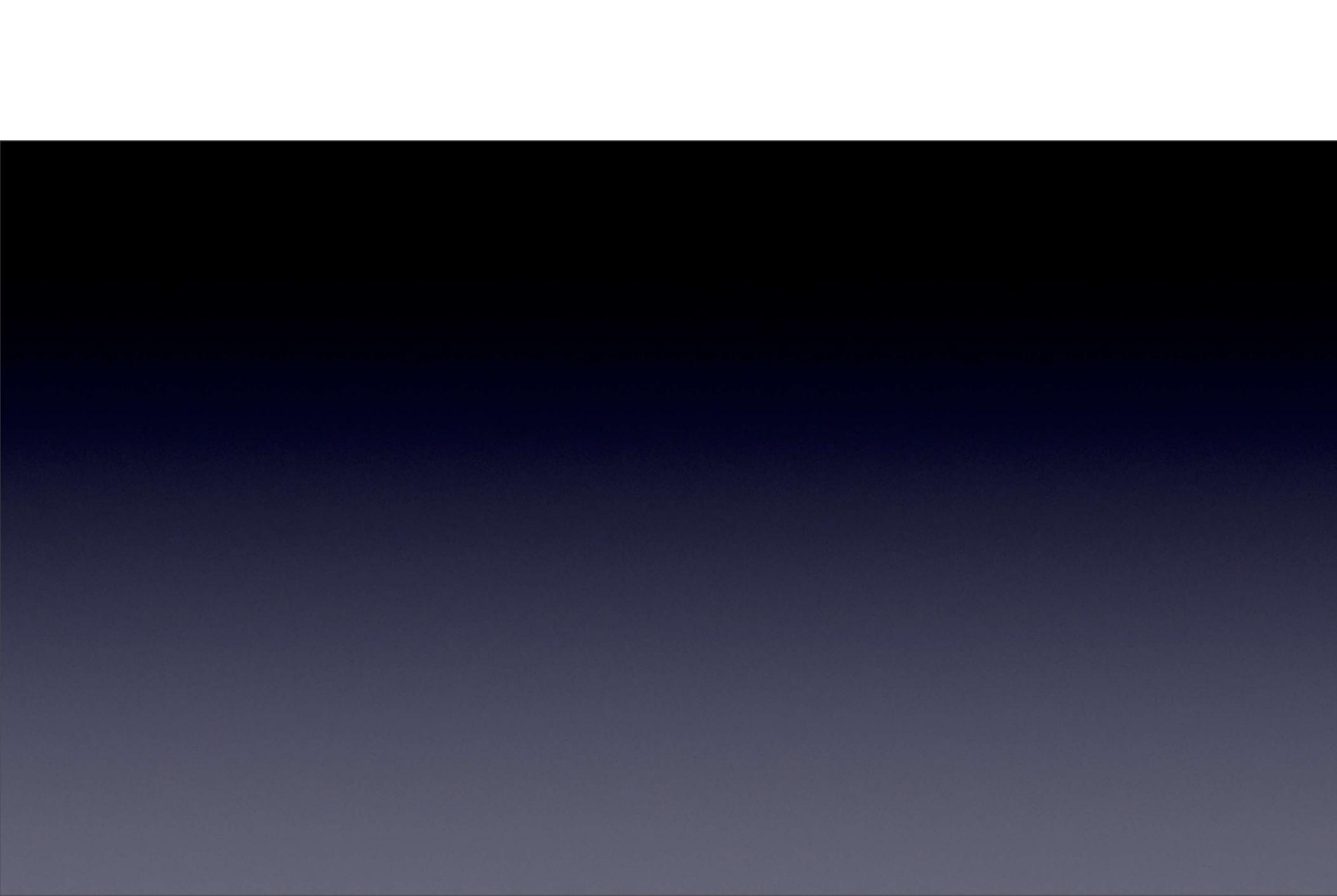
Apresentando pela primeira vez



50' session = 45' talk + 5' q/a

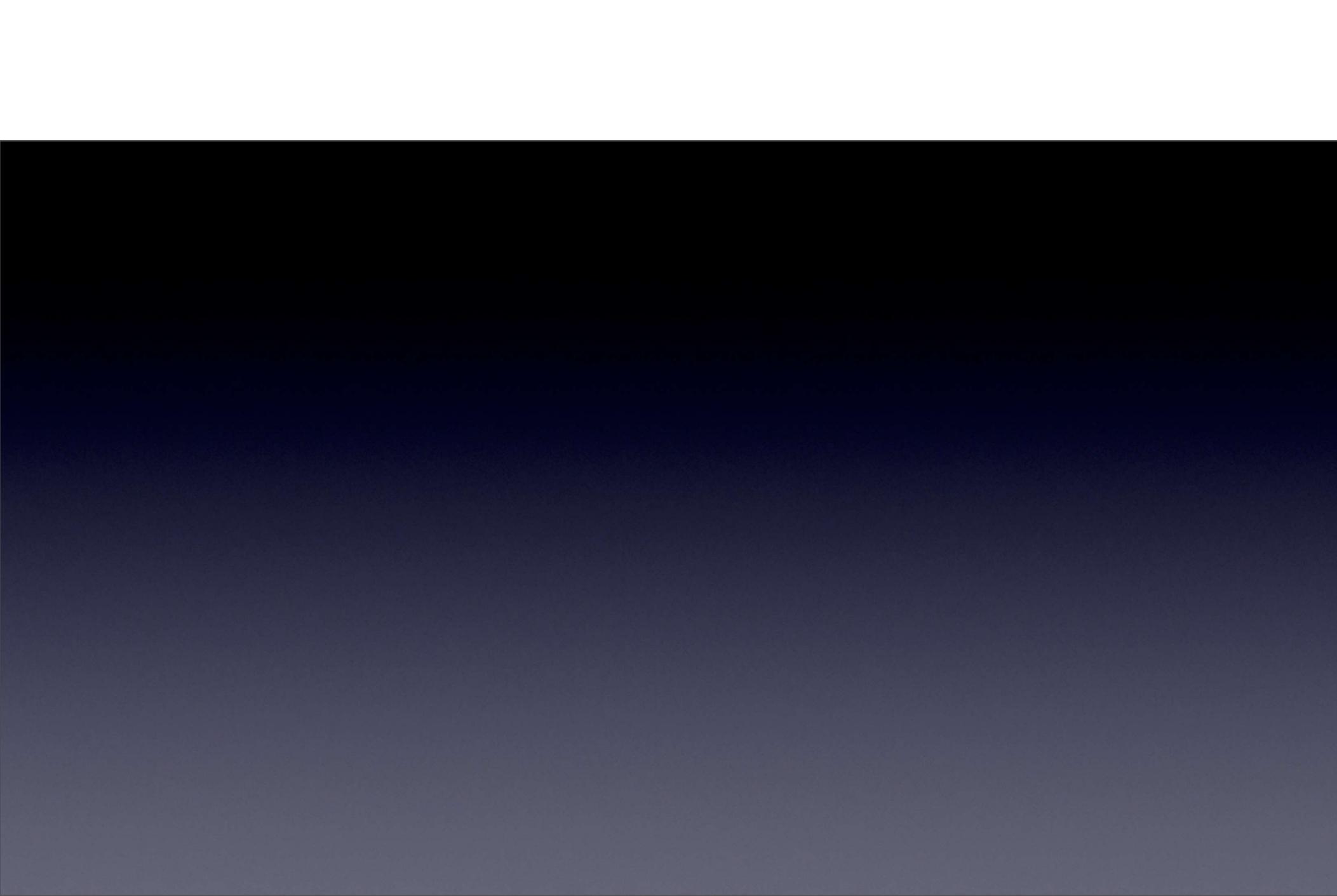
Como chegamos aqui?

?

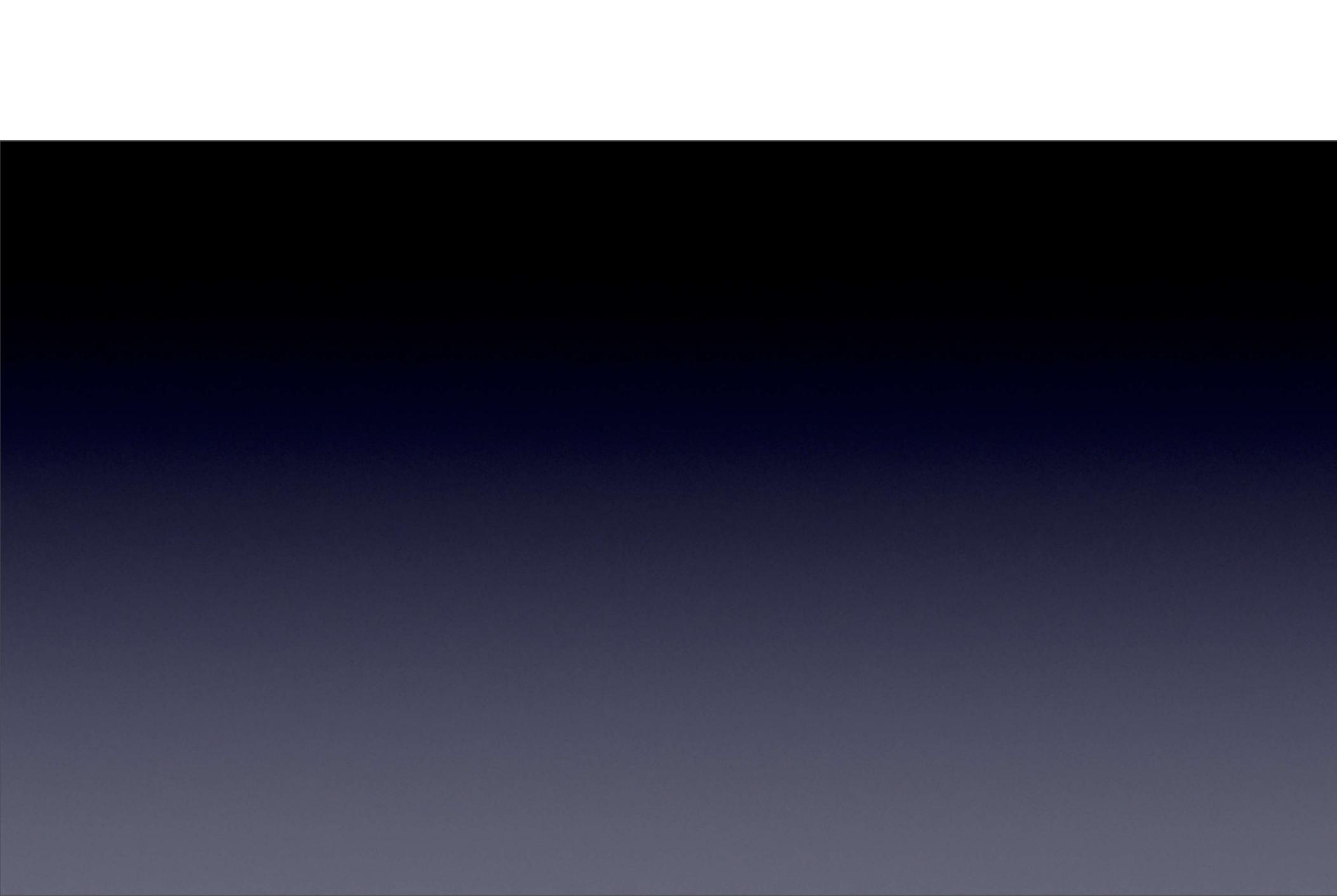


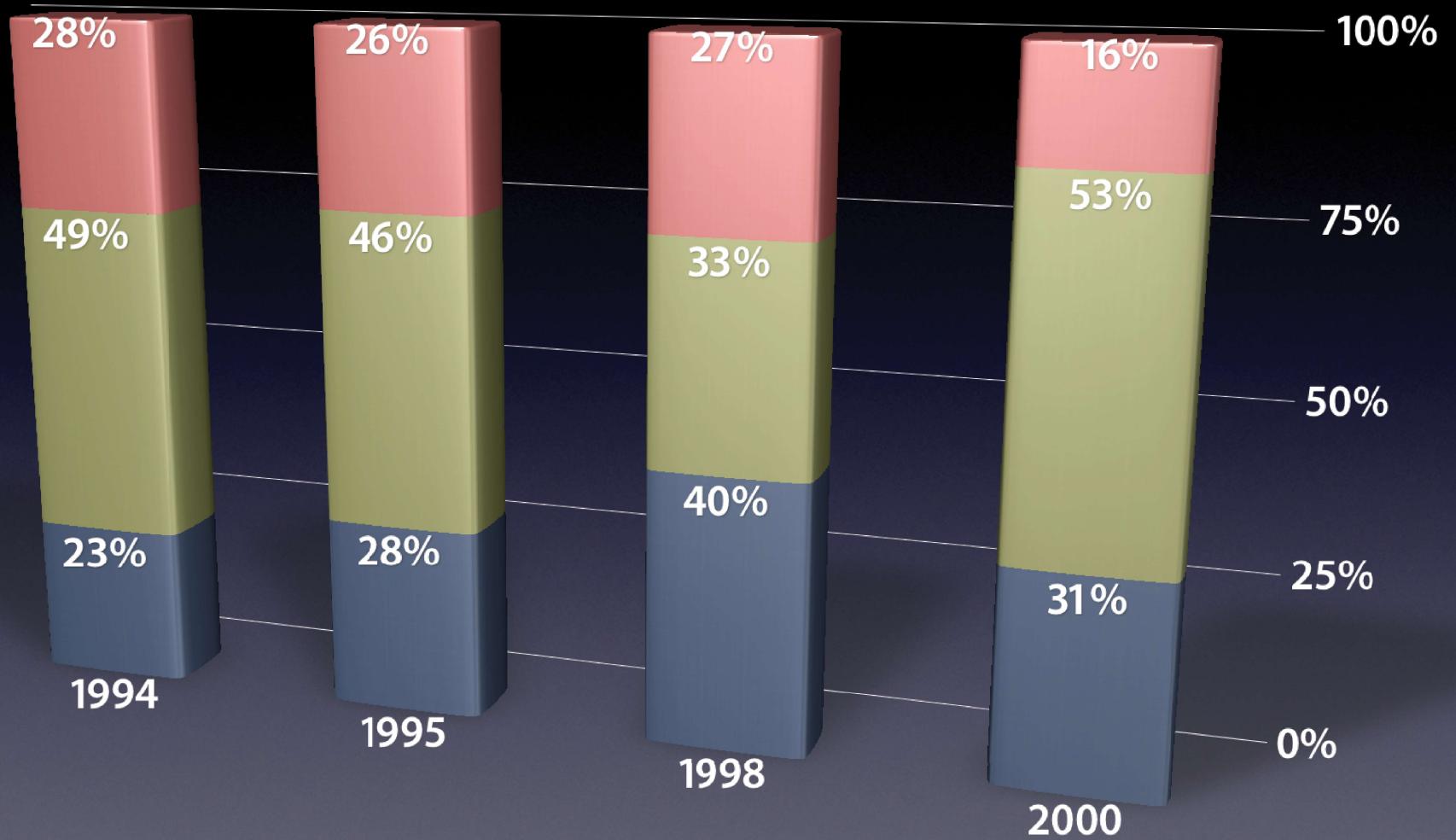
Você tem uma semana para escrever um compilador para FORTRAN.

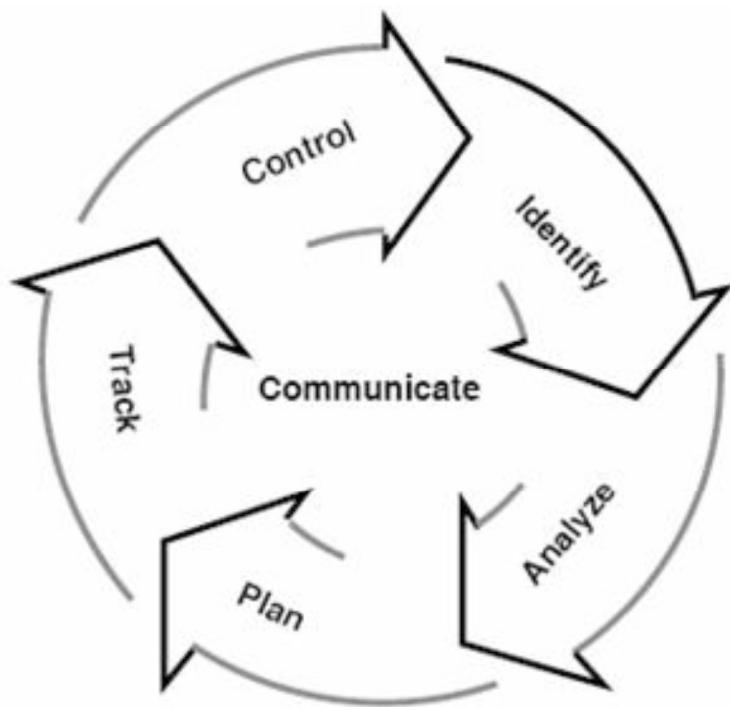
Do que você precisa?

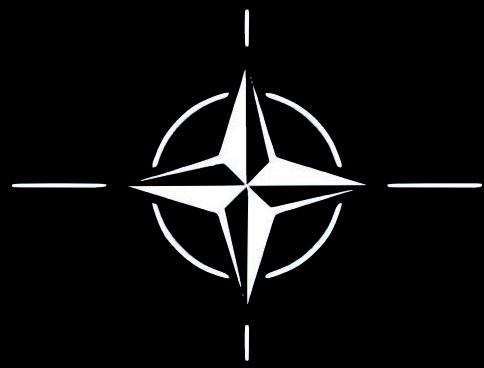


Depende!

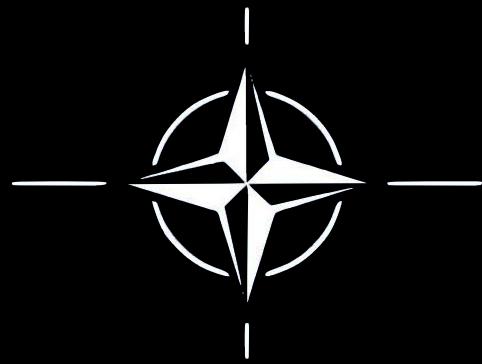




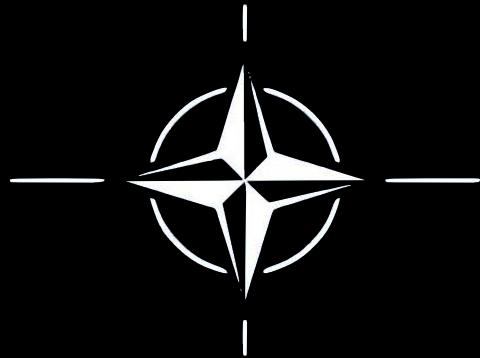




1970

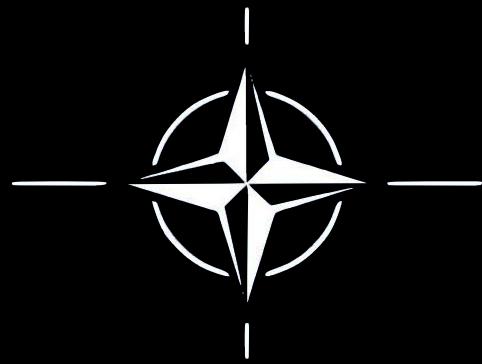


1970

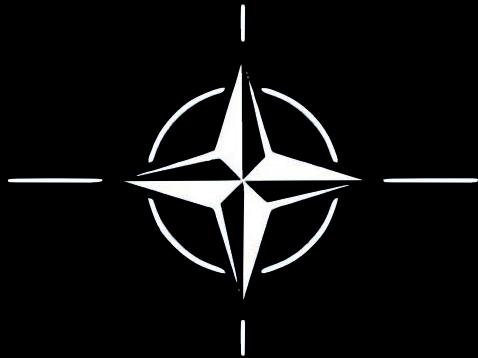


- ▶ Cronogramas não observados
- ▶ Projetos com tantas dificuldades que são abandonados
- ▶ Módulos que não operam corretamente quando combinados
- ▶ Programas que não fazem exatamente o que era esperado
- ▶ Programas tão difíceis de usar que são descartados
- ▶ Programas que simplesmente param de funcionar

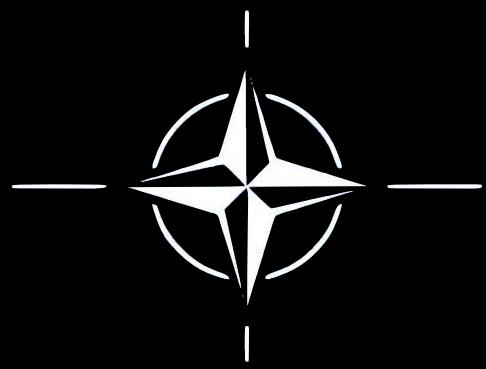
2000



2000



- ▶ Cronogramas não observados
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Steve McConnell's Classic Mistakes Enumerated

Humano

Processo

Produto

Tecnologia

Humano

- ▶ Undermined motivation
- ▶ Weak personnel
- ▶ Uncontrolled problem employees
- ▶ Heroics
- ▶ Adding people to a late project
- ▶ Noisy, crowded offices
- ▶ Friction between developers and customers
- ▶ Unrealistic expectations
- ▶ Lack of effective project sponsorship
- ▶ Lack of stakeholder buy-in
- ▶ Lack of user input
- ▶ Politics placed over substance
- ▶ Wishful thinking

Processo

- ▶ Overly optimistic schedules
- ▶ Insufficient risk management
- ▶ Contractor failure
- ▶ Insufficient planning
- ▶ Abandonment of planning under pressure
- ▶ Wasted time during the fuzzy front end
- ▶ Shortchanged upstream activities
- ▶ Inadequate design
- ▶ Shortchanged quality assurance
- ▶ Insufficient management controls
- ▶ Premature or too frequent convergence
- ▶ Omitting necessary tasks from estimates
- ▶ Planning to catch up later
- ▶ Code-like-hell programming

Produto

- ▶ Requirements gold-plating
- ▶ Feature creep
- ▶ Developer gold-plating
- ▶ Push me, pull me negotiation
- ▶ Research-oriented development

Tecnologia

- ▶ Silver-bullet syndrome
- ▶ Overestimated savings from new tools or methods
- ▶ Switching tools in the middle of a project
- ▶ Lack of automated source-code control

Humano	13	Processo	14	Produto	5	Tecnologia	4
<ul style="list-style-type: none"> ▶ Undermined motivation ▶ Weak personnel ▶ Uncontrolled problem employees ▶ Heroics ▶ Adding people to a late project ▶ Noisy, crowded offices ▶ Friction between developers and customers ▶ Unrealistic expectations ▶ Lack of effective project sponsorship ▶ Lack of stakeholder buy-in ▶ Lack of user input ▶ Politics placed over substance ▶ Wishful thinking 		<ul style="list-style-type: none"> ▶ Overly optimistic schedules ▶ Insufficient risk management ▶ Contractor failure ▶ Insufficient planning ▶ Abandonment of planning under pressure ▶ Wasted time during the fuzzy front end ▶ Shortchanged upstream activities ▶ Inadequate design ▶ Shortchanged quality assurance ▶ Insufficient management controls ▶ Premature or too frequent convergence ▶ Omitting necessary tasks from estimates ▶ Planning to catch up later ▶ Code-like-hell programming 		<ul style="list-style-type: none"> ▶ Requirements gold-plating ▶ Feature creep ▶ Developer gold-plating ▶ Push me, pull me negotiation ▶ Research-oriented development 		<ul style="list-style-type: none"> ▶ Silver-bullet syndrome ▶ Overestimated savings from new tools or methods ▶ Switching tools in the middle of a project ▶ Lack of automated source-code control 	

SWEBOK

Software Engineering Body of Knowledge



open source



Você tem uma semana para escrever um compilador FORTRAN.

Do que você precisa?

People who are:

People who are: 1 - Smart, and

People who are: 1 - Smart, and
2 - Get Things Done

SAP Developer Network (SDN): Downloads, Discussions, eLearning, and Documentation for Developers
https://www.sdn.sap.com/irj/sdn

RSS Google

Blog do l... Corporativo Zen Habits | ...Productivity WebMail GoLive WebMail Lucattelli Gmail

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Getting Started

Service-Oriented Architecture >

SAP NetWeaver Capabilities >

User Productivity >

Information Management >

Business Process Management >

Development and Composition >

Lifecycle Management >

Security and Identity Management >

SOA Middleware >

SAP NetWeaver Product >

Main Releases >

Complementary Offerings >

SAP Business One >

Standards >

Open Source Integration >

Research and Innovation >

Certification and Partnership >

Home

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FOCUS ON SUSTAINABILITY AT SAP

What does sustainable business mean to you? In the first of his blog series, [Peter Graf](#), Chief Sustainability Officer and EVP of Sustainable Operations at SAP, takes a look at some of the topics he plans to cover including guidelines for green IT to help build energy efficient software solutions that are proactively designed to leverage energy efficient hardware, virtualization, and other infrastructure advances. 02 Mar 2009

SAP EcoHub

USING THE SAP ECOHUB: A CUSTOMER'S VIEWPOINT

In her blog, [Karin Tillotson](#), SAP Specialist at Valero Energy, shares her insights on how she plans to use SAP EcoHub to research new solutions for upcoming projects. 25 Feb 2009

FEATURED BLOG: EIGHT SOA MISTAKES ARCHITECTS SHOULD AVOID

Is it the SOA approach or how architects work on SOA? In his recent blog, [Bernhard Escherich](#) takes a look at some of the mistakes he's encountered during his own SOA projects. 11 Mar 09 University Alliances

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Pragmático?

The Pragmatic Programmer



from journeyman
to master

Andrew Hunt
David Thomas

Foreword by Ward Cunningham

prag•mat•ic |præg'matik|

adjective

dealing with things sensibly and realistically in a way that is based on practical rather than theoretical considerations : *a pragmatic approach to politics.*

- relating to philosophical or political pragmatism.
- Linguistics of or relating to pragmatics.

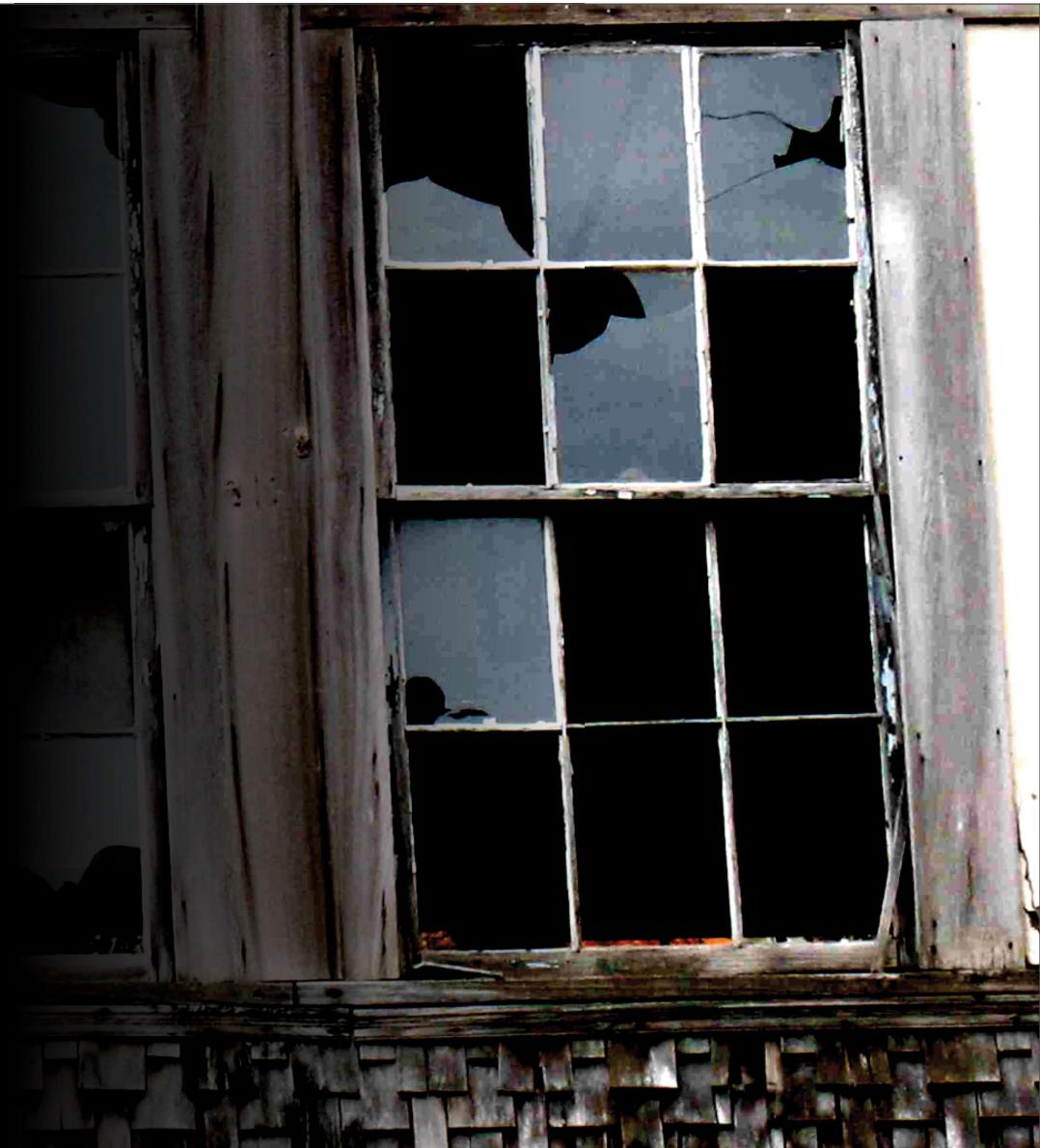
DERIVATIVES

prag•mat•i•cal•ly |-ik(ə)lē| |præg'mætik(ə)li| adverb

ORIGIN late 16th cent. (in the senses [busy, interfering, conceited]): via Latin from Greek *pragmatikos* 'relating to fact,' from *pragma* 'deed' (from the stem of *prattein* 'do'). The current sense dates from the mid 19th cent.

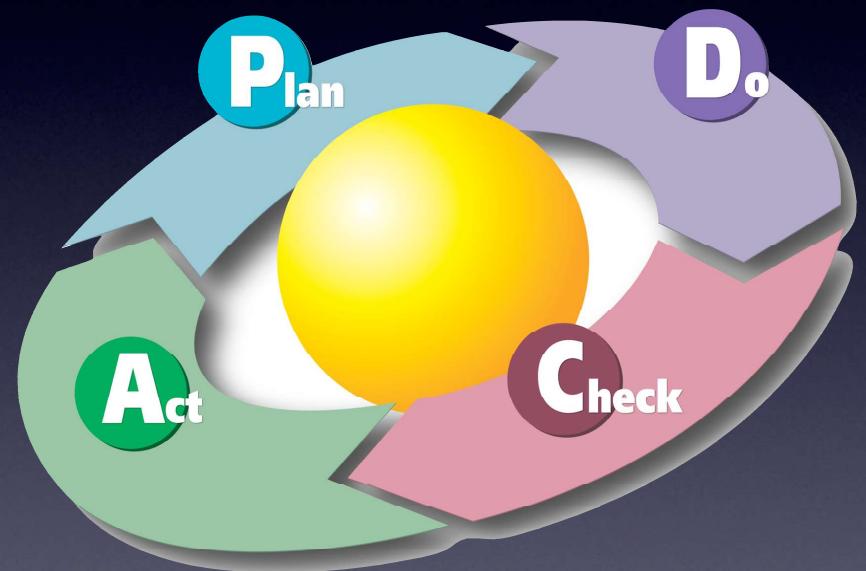
<gestão>

Don't Live with Broken Windows

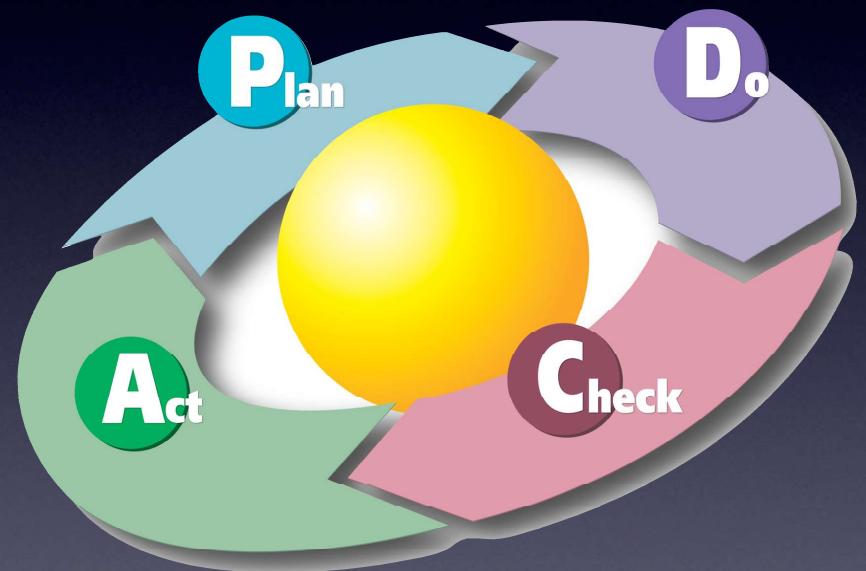




Make Quality a Requirements Issue



Make Quality a Requirements Issue



Remember the Big Picture

A circular object, likely a pocket watch or a celestial map, is centered in the frame. It features a complex arrangement of gears, hands, and various symbols and numbers. The outer ring contains numerous small, dark, silhouetted figures and symbols, possibly representing constellations or historical figures. The overall composition is dark and moody, with the circular object being the primary light source.



IF

There Are No
Final Decisions

Iterate the
Schedule with
the Code



Iterate the
Schedule with
the Code

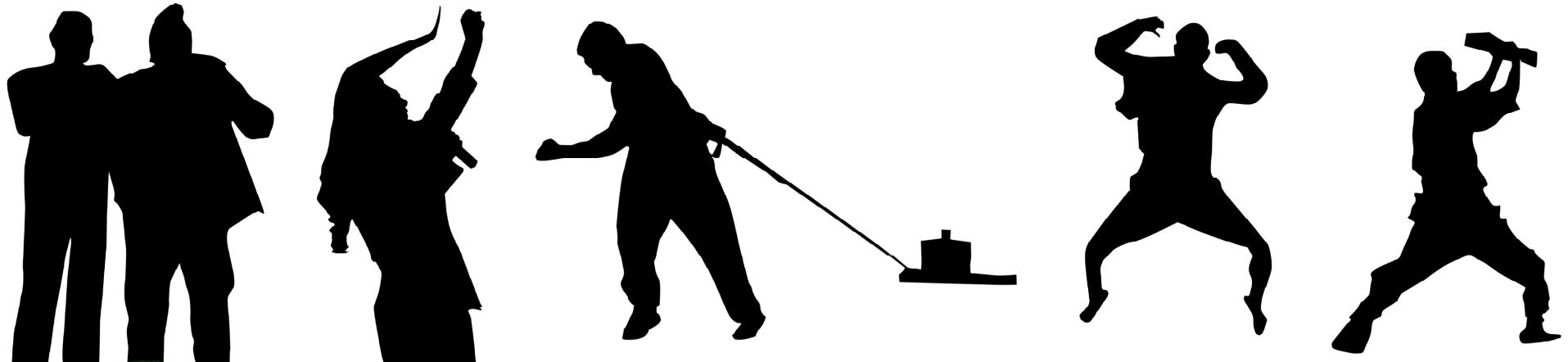


Some Things Are Better Done than Described



Organize Teams Around Functionality

Don't separate designers from coders, testers from data modelers. Build teams the way you build code.



Don't Be a Slave to Formal Methods



Don't Use Manual Procedures



GLOSSARY OF COMMON TERMS

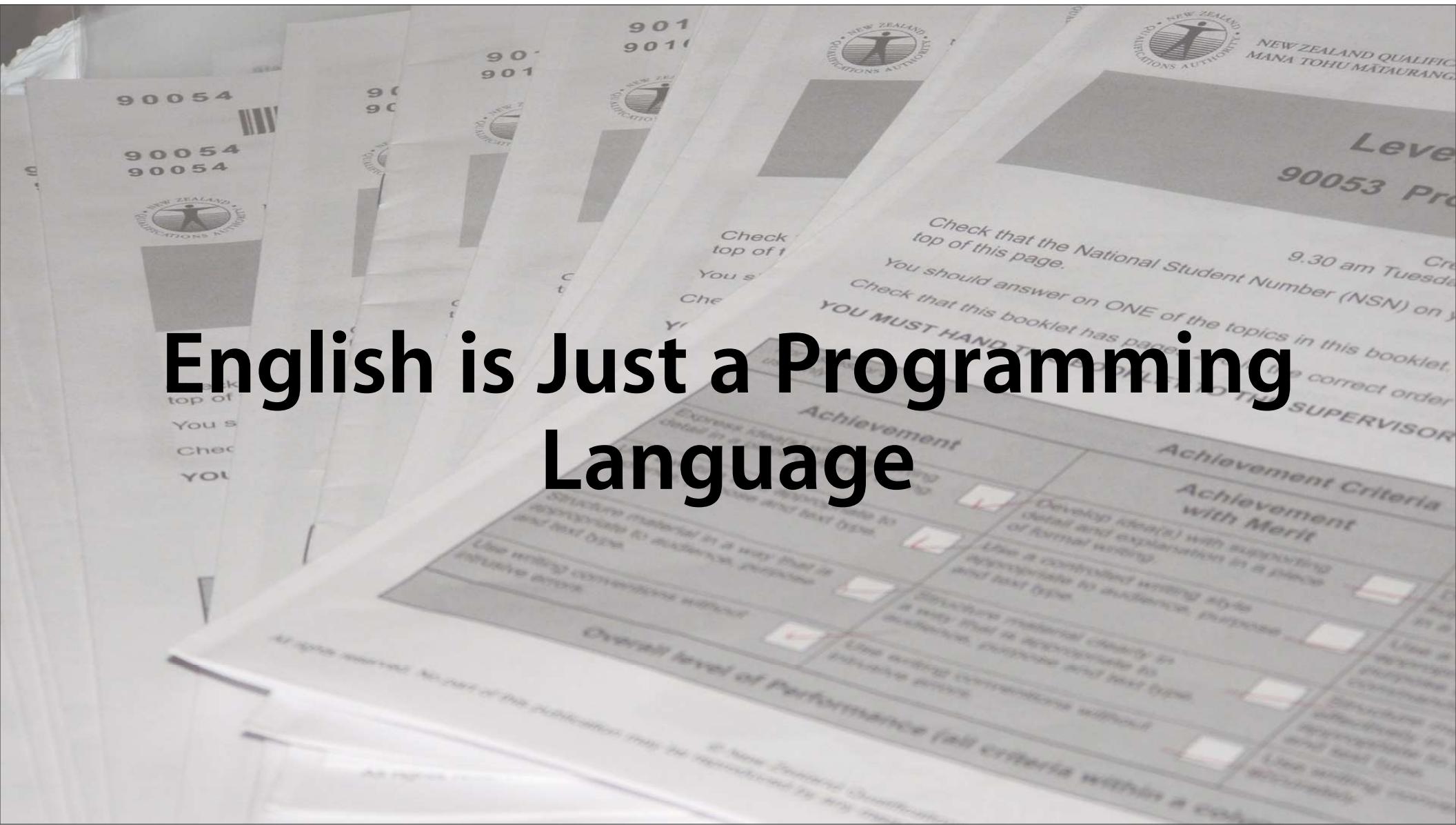
TERM

MEANING

1. Feet Wet	Flying Over Water
2. Popeye	Flying in Instrument Conditions
3. Max Ord	Maximum hight AGL of Artillery Firing
4. Alpha Papa	An Ambush Patrol
5. Funny Paper	Map
6. Big Blue	Large River
7. Little Blue	One Kilometer
8. Click	Duty Officer
9. Delta Oscar	Loud and Clear
10. Lima Charlie	Firing clockwise from 270 to 030
11. 270 Tango Oscar 030	B-52's of Fighters Strike
12. Heavy Artillery	F.M. Radio
13. Fox Mike	U.H.F. Radio
14. Uniform	V.H.F. Radio
15. Victor	Heading and distance to a point.
16. Pigeons	Fuel remaining is just enough to return
17. Bingo	Target or Point in visual contact
18. Tally Ho	USAF Rescue Chopper
19. Duds	

Use a Project Glossary

English is Just a Programming Language



<postura>

Think! About Your Work

Finish What You Start

**Invest Regularly in Your
Knowledge Portfolio**

Sign Your Work

Bruno Lucattelli - Google Search

http://www.google.com/search?client=safari&rls=en-us&q=Bruno+Lucattelli&ie=UTF-8&oe=UTF-8

Q Bruno Lucattelli

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Care About Your Craft

**Provide Options, Don't Make
Lame Excuses**

Be a Catalyst for Change

**Critically Analyze What
You Read and Hear**

**Don't Think Outside the Box
Find the Box!**

**Gently Exceed Your Users'
Expectations**

**It's Both What You Say and the
Way You Say It**

Start When You're Ready

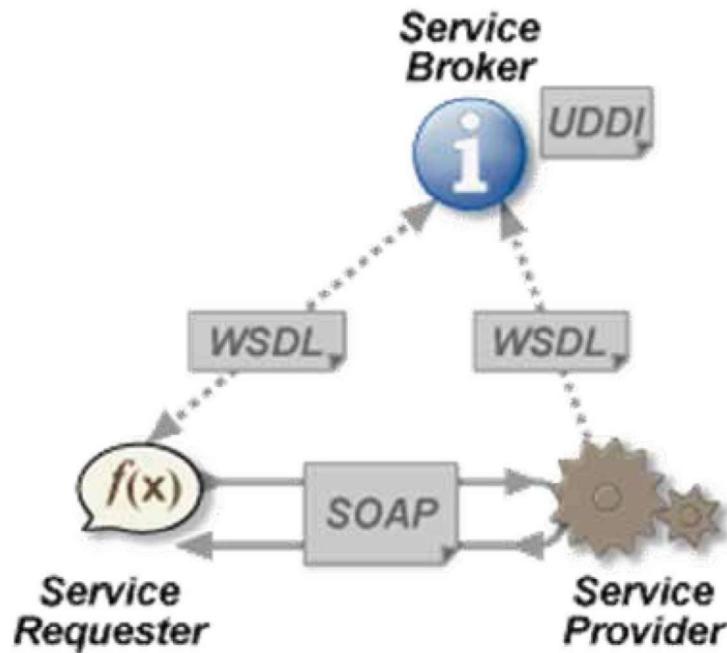
<design>

DRY - Don't Repeat Yourself

**Make It Easy
to Reuse**



Design Using Services



Design
to Test



T E S T I N G

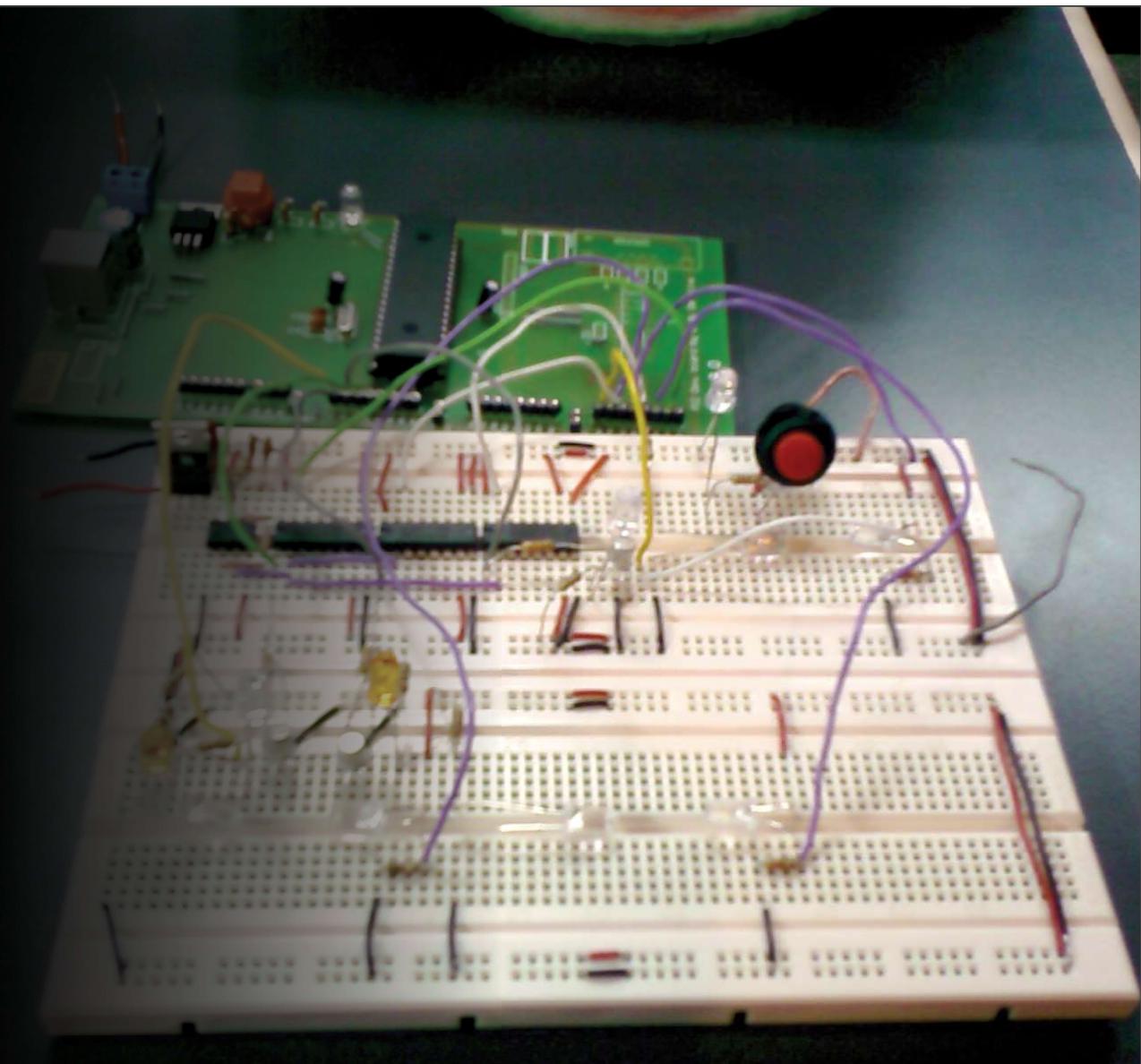
I FIND YOUR LACK OF TESTS DISTURBING.

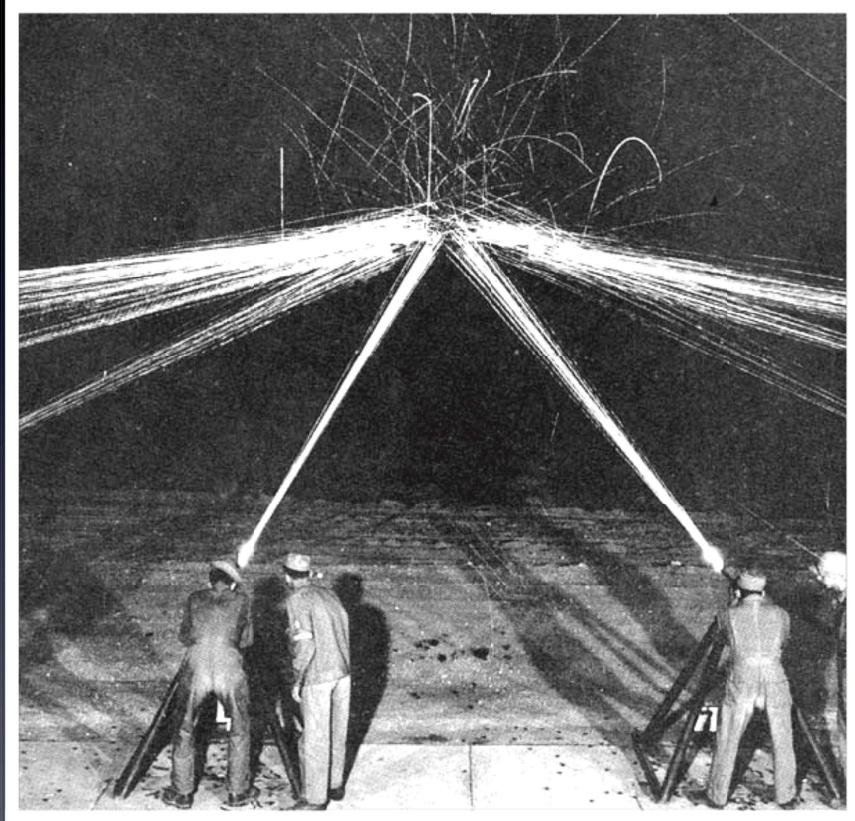


Design
to Test

“shhh...
pff....”

Prototype to Learn



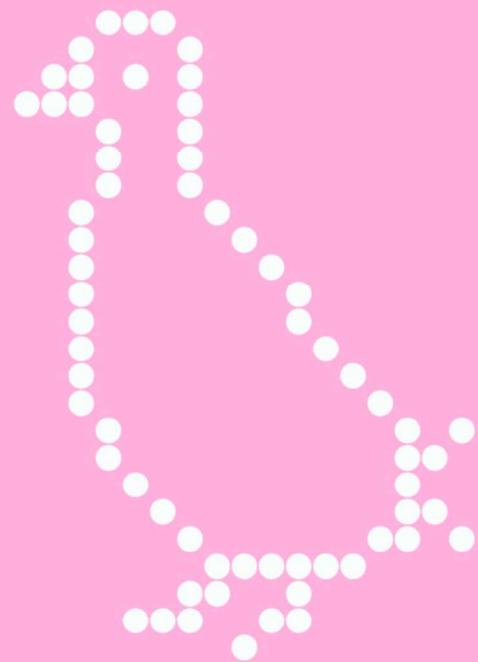


Use Tracer
Bullets to Find
the Target

Design with Contracts



Eliminate Effects Between Unrelated Things

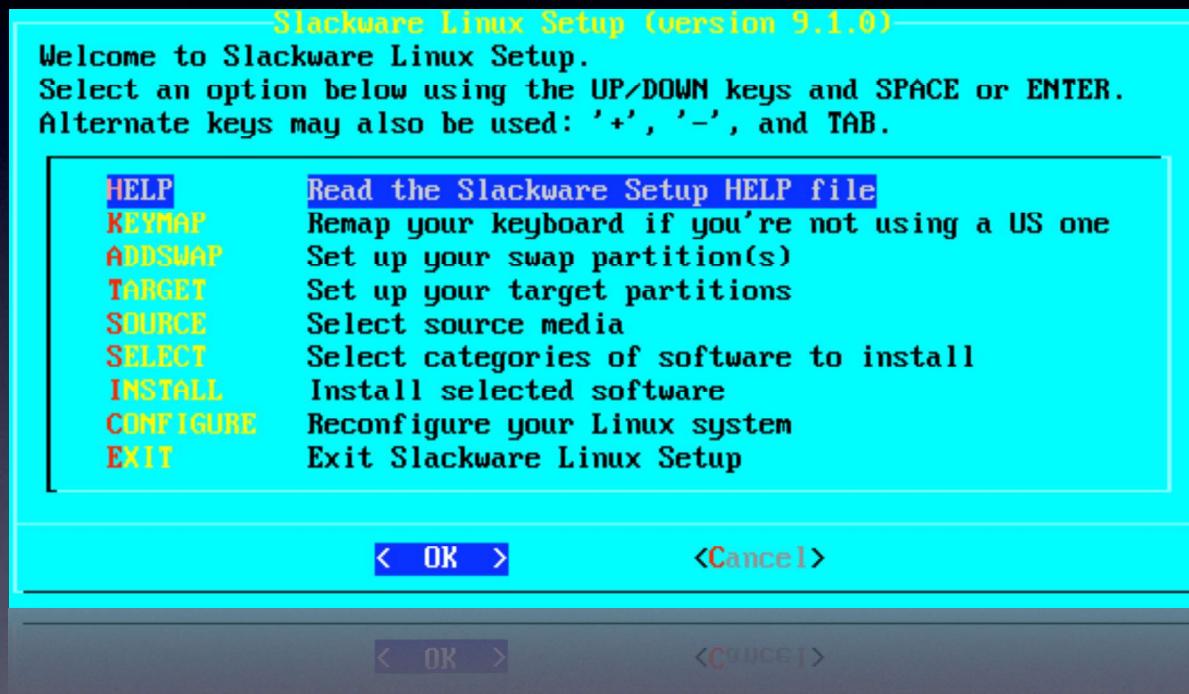


Simplicity Law 5 *Simplicity and complexity need each other.*



**Minimize Coupling
Between Modules**

Configure, Don't Integrate



A photograph of a loaf of bread being sliced. A large, serrated knife is shown in the upper right, having just cut through a slice of light-colored bread. The bread is resting on a dark, textured surface, likely a wooden cutting board. In the lower left, a larger, round loaf of bread with a dark, crusty exterior is visible.

Separate Views from Models

Don't Gather Requirements!

Dig for Them!

Requirements rarely lie on the surface. They're buried deep beneath layers of assumptions, misconceptions, and politics.



Analyze Workflow to Improve Concurrency

**Costly Tools Don't Produce
Better Designs**

**Put Abstractions in Code,
Details in Metadata**

Always Design for Concurrency

Use Blackboards to Coordinate Workflow

Estimate the Order of Your Algorithms

Abstractions Live Longer than Details

**Test State Coverage, Not
Code Coverage**

Work with a User to Think Like a User

<código>

You Can't Write Perfect Software

-EVIDENCE-

Submitting Agency: _____

Case No.: _____

Item No.: _____

Date of Collection: _____

Time of Collection: _____

Collected by: _____

Badge No.: _____

**Coding Ain't Done 'Til All the
Tests Run**

**Test Early. Test Often. Test
Automatically.**

Test Your Software, or Your Users Will

Don't Program by Coincidence



**Don't Use Wizard
Code You Don't
Understand**

Use Assertions to Prevent the Impossible



Use Exceptions for Exceptional Problems



Crash Early



Find Bugs Once



Keep Knowledge in Plain Text

Build Documentation In, Don't Bolt It On

The screenshot shows a software interface with a dark background. At the top, there's a toolbar with icons for file operations like Open, Save, and Print. Below the toolbar, the title bar reads "Macro-molecular Monte Carlo Routines: group class Reference". The main window is divided into several sections:

- Detailed Description:** A large section containing the following text:

Groups set of particles, such as molecules, salt etc.
- Author:** Mikael Lund
- Date:** Lund 2004
- A detailed explanation of what a group defines: "A group defines the range of a protein, the mobile ions, a chain or whatever. If is used extensively in MC movements, energy calculations and many, many other places."
- Definition at line 25 of file [group.h](#).**
- Public Member Functions:** A list starting with **group (int=0)**, described as "Constructor, initialize data."

On the right side of the interface, there's a code editor window titled "group.h" showing the following C++ code:

```
/*! \brief Groups set of particles, such as molecules, salt etc.
 * \author Mikael Lund
 * \date Lund 2004
 *
 * A group defines the range of a protein, the mobile ions,
 * a chain or whatever. If is used extensively in MC movements,
 * energy calculations and many, many other places.
 */
class group {
protected:
    slmp slp;
    string title;
public:
    particle cm, cm_trial;
    short int beg,end;      ///< Define range in particle vector.
    string name;            ///< Informative (arbitrary) name
    group(int=0);           ///< Constructor, initialize data.
}
```

Always Use Source Code Control

Refactor Early, Refactor Often

Don't Assume It—Prove It

Use Saboteurs to Test Your Testing

Use a Single Editor Well

**Program Close to the
Problem Domain**

Don't Panic When Debugging

Use the Power of Command Shells

Write Code That Writes Code

Fix the Problem, Not the Blame

“select” Isn’t Broken

Learn a Text Manipulation Language

Estimate to Avoid Surprises

Test Your Estimates

OBRIGADO!

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