

2012 LabVIEW Programmer Days

<Presenter Name Here>

Agenda

08:30 - 09:00 Coffee

09:00 - 09:15 Introduction

09:15 - 10:00 How to get started with LabVIEW
Real-Time and FPGA successfully?

10:00 - 10:15 Break

10:15 - 11:15 CLAD/CLD Certification Run Through

11:15 - 12:00 LabVIEW Performance Tips & Tricks

Ensuring Software Quality and Reliability

Goals

1. Deliver a working product
2. Prove it works right
3. Mitigate risk of failure
4. Avoid last-minute changes

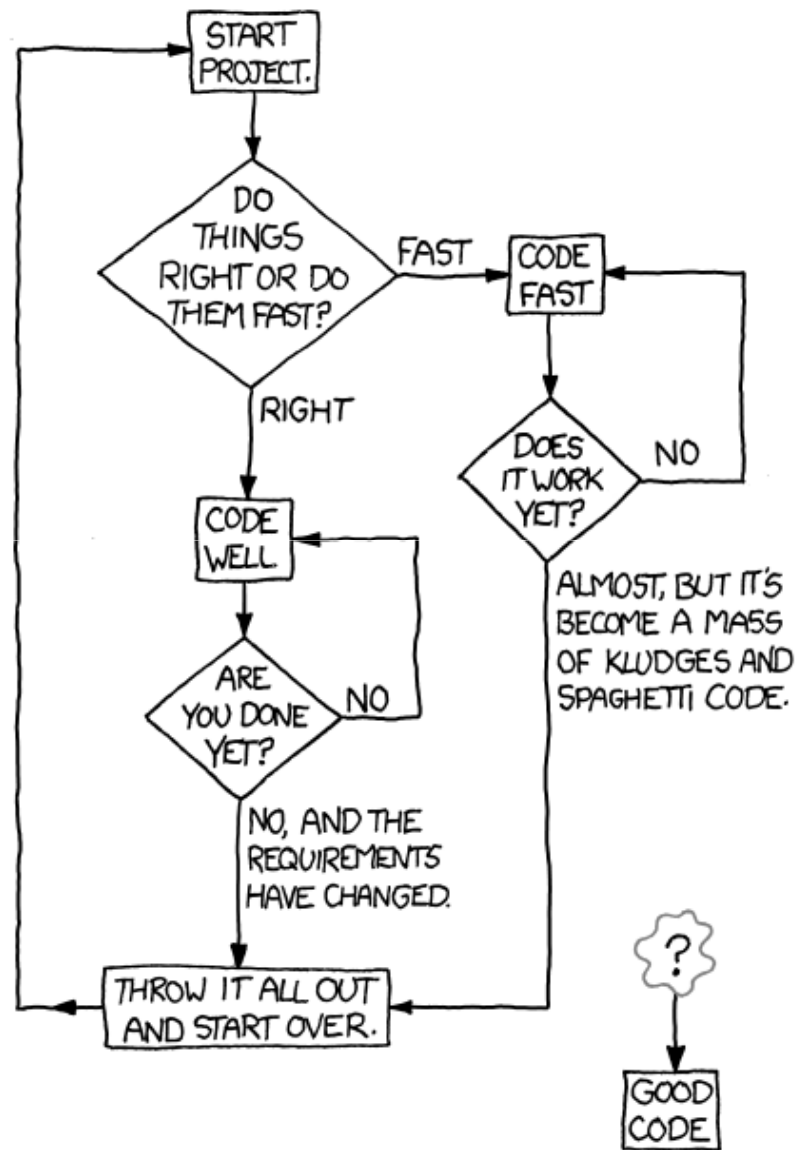
Why?

1. More complex software
2. Mission-critical applications
3. Team size is growing
4. Increased scrutiny
5. Decreased time

You Need to Prove:

- ✓ Satisfies customer expectations
- ✓ Meets safety requirements
- ✓ The application is reliable
- ✓ Errors are handled gracefully

HOW TO WRITE GOOD CODE:



Examples of Software Engineering Debt

(just *some* of the most common LabVIEW development mistakes)

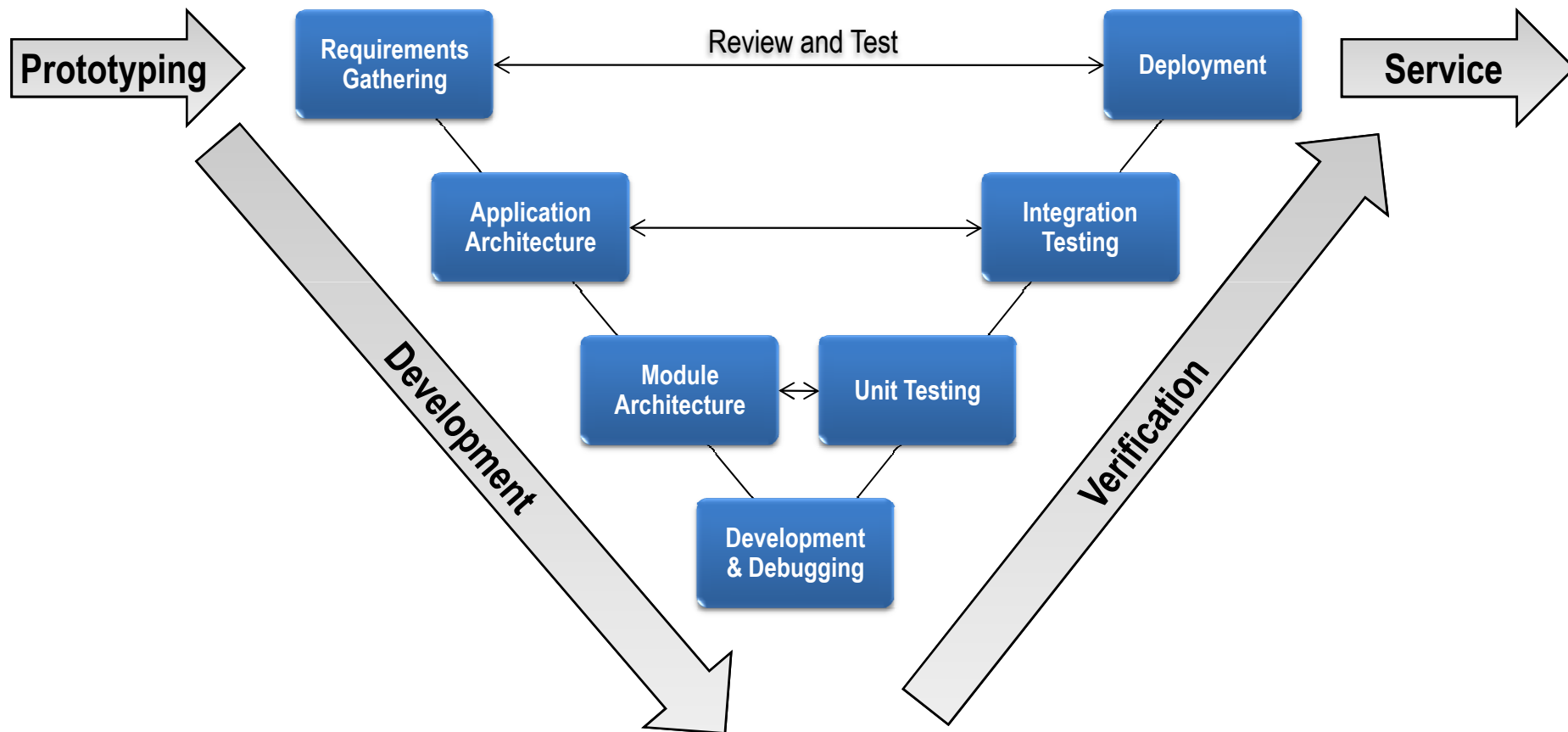
- ✓ No source code control (or Project)
- ✓ Flat file hierarchy
- ✓ 'Stop' isn't tested regularly
- ✓ Wait until the 'end' of a project to build an application
- ✓ Few specifications / documentation / requirements
- ✓ No 'buddying' or code reviews
- ✓ Poor planning (Lack of consideration for SMORES)
- ✓ No test plans
- ✓ Poor error handling
- ✓ No consistent style
- ✓ Tight coupling, poor cohesion

The Cost of a Software Defect

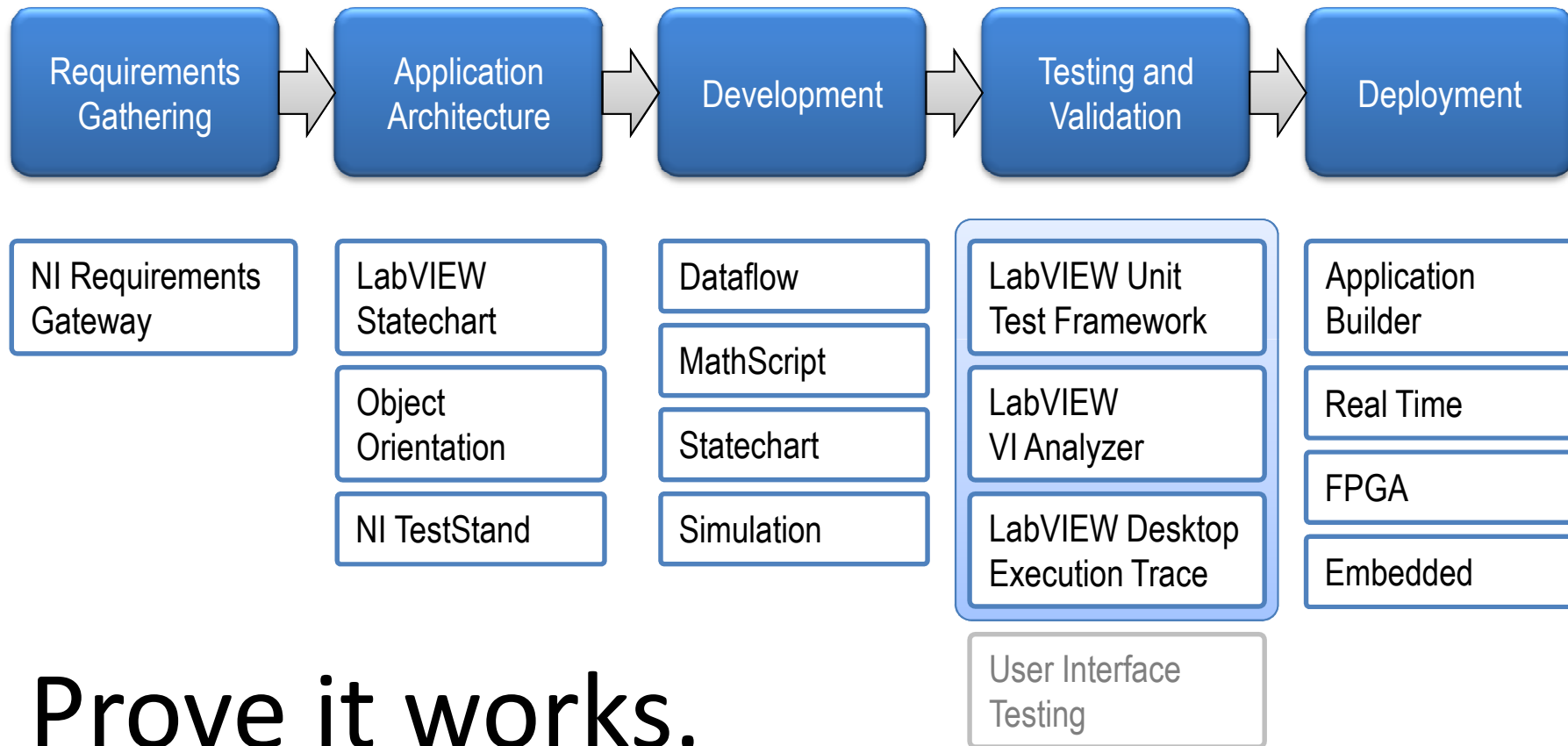
Development Phase	Cost Ratio
Requirements	1
Design	3-6x
Implementation	10x
Development Testing	15-40x
Acceptance Testing	30-70x
Post Release	40-1000x

Based on an analysis of 63 software development projects at companies including IBM, GTE and TRW

Software Engineering V-Model



The Software Engineering Process



Prove it works.

Improve quality. Reduce risk. Save time.

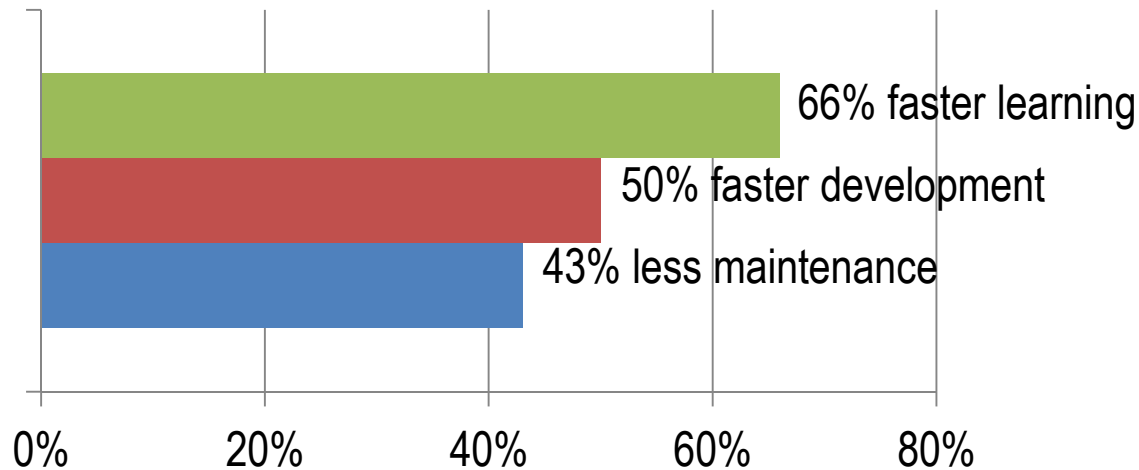
New Customer Education Materials

- Advanced Application Architectures
- Object Oriented Programming in LabVIEW
- Managing Software Engineering in LabVIEW

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NI Training Saves Time and Money

- In a worldwide survey, NI training customers reported:



...as a result of NI training

- Lexmark reported 170% ROI from LabVIEW Basics training

*Source: NI WW training customer survey, 2009, n = 640, from US, Canada, Germany, Spain, Poland, Mexico, Brazil, South America, Japan, Taiwan, ASEAN

NI Training – Core III (Highly Recommended!)

Core III: 26-28.03.2012

Topics:

- Successful Development practices
- Analyzing the Project
- Designing the User Interface
- Designing the Project
- Implementing The User Interface
- Implementing Code
- Evaluating VI Performance
- Implementing Documentation
- Deploying the Application

NI Training – Core III (Highly Recommended!)

Core III: 02-04.04.2012

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NI Training – Core III (Highly Recommended!)

Core III: 25-27.06.2012

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NI Training – Core III (Highly Recommended!)

Core III: 23-25.04.2012

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Special Offer for SSP Customers!

SSP = Standard Service Program

All customers automatically receive one year of SSP membership with their purchase of most software products. NI Developer Suite and the Volume License Program also include SSP entitlements, plus additional benefits related to those programs.

SSP Customers whom are participating LabVIEW Programmer Days will receive **50% discount** voucher for Training Classes.

- >> If your SSP Contract has expired you may renew it and after that request this offer.
- >> If you don't have SSP then you should get it now and after that request this offer.



Software Maintenance and Support

Volume Licensing

System Configuration and Deployment

Calibration

Warranty and Repair

Professional Services

Training and Certification

Ensure Complete System Success

Increase Productivity with Service and Support Solutions

New Benefits for SSP Customers!

- 2012 we start to offer free eLearning Classes for SSP Customers (Core I, Core II, Core III etc)
- 2013 Special LabVIEW Event only for SSP Customers

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