



Service Validation, Incremental and Iterative Development

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Agenda

- Service Reality Check
- Common language: definitions
- Incremental development?
- Iterative development?
- V-models
- Understanding customer/user value
- Questions



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Reality Check

- IT exists to support the business
- IT focus?
 - It's not about building a Better Mousetrap
 - It **is** about making the mice less visible
 - Solving the customer's problem, not the technology
 - Customer doesn't care about the technology
 - Just want to do their job or solve a problem
- It's also about quality...
 - What **is** quality?



Quality

- "Quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for...."
- Customers pay only for what is of use to them and gives them value. Nothing else constitutes quality." (Peter F. Drucker – PFD)



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Common language

- Without common meaning, what are we talking about?
- How do you pronounce this word: **OBJECT**
 - What you need to know: noun or verb
 - Another: What does **LAST** mean? Order or persistence?
- The term *service* is horribly overloaded (duh 😊)
 - Without a modifier or a context, what is it?
 - Religious, table, tennis...
 - SOA, SaaS, WS*



Need some definitions



But first a word from PFD

- What is the purpose for business?
 - Hint: it's not about profit
- Yes profit and profitability are important, even crucial for business.
 - However, according to PFD, profit can actually be, "a limiting factor on business enterprise and business activity."
- So what is the purpose for business?



The purpose for business is...

- Profit is the test of the validity of the real purpose for business.

- And that is...

- The purpose for business is...
 - ... to create a customer.



With that in mind, **now** some definitions



Service Management Defined

- **Service Management:** A set of specialized organizational capabilities for providing value to customers in the form of services.
- In other words, the driver is customer value
- Properly done, *specialized organizational capabilities* become assets



Service Defined

- **Service:** A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.
- The customer just wants it to work
- Flick the switch and the lights turn ON
- Put the definitions together: Services are assets that deliver value to the customer.

(source: [ITIL V3 Service Design Volume](#))



Why is this important?

- Part of what is needed is a shift from technical focus to customer focus.
- Could mean an organizational cultural shift necessary to develop the set of specialized organizational capabilities that:
 - (a) Recognize the customer value requirement
 - (b) Consider IT delivered services as assets to the business
 - Intended consequence: change the relationship between IT and the business to develop trust.



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Incremental & Iterative

- What's the difference between the two?
- Session abstract talks about scope and schedules, what else...?
- Neither are waterfall.
 - They represent the antithesis of waterfall.
- Opposite of waterfall
 - Big-bang integration *versus* pieces that add-on
 - BDUF *versus* evolving
 - Need "just enough" R/D UF



Incremental Development

- Work broken into small pieces, scheduled to be developed, and integrated as completed
- Each piece is a (full) set of functionality
 - Each additional piece adds more (functionality)
- Ready for some level of user testing no later than the 3rd increment (typically by the 2nd)

- Staging and process strategy



Iterative Development

- Time set aside to improve existing code
- Evaluation includes consideration of requirements, technology and in rare cases business case
- Core method: refactor
- Approaches
 - Develop the best as possible to minimize rework
 - Least amount possible, evaluate and revise





More definitions (A. Cockburn)

- **Incremental development:** A staging and scheduling strategy in which the various parts of the system are developed at different times or rates, and integrated as they are completed.
 - Incremental development is about **process** improvement.
- **Iterative development:** A rework scheduling strategy in which time is set aside to revise and improve parts of the system.
 - Iterative development is about **product** improvement.



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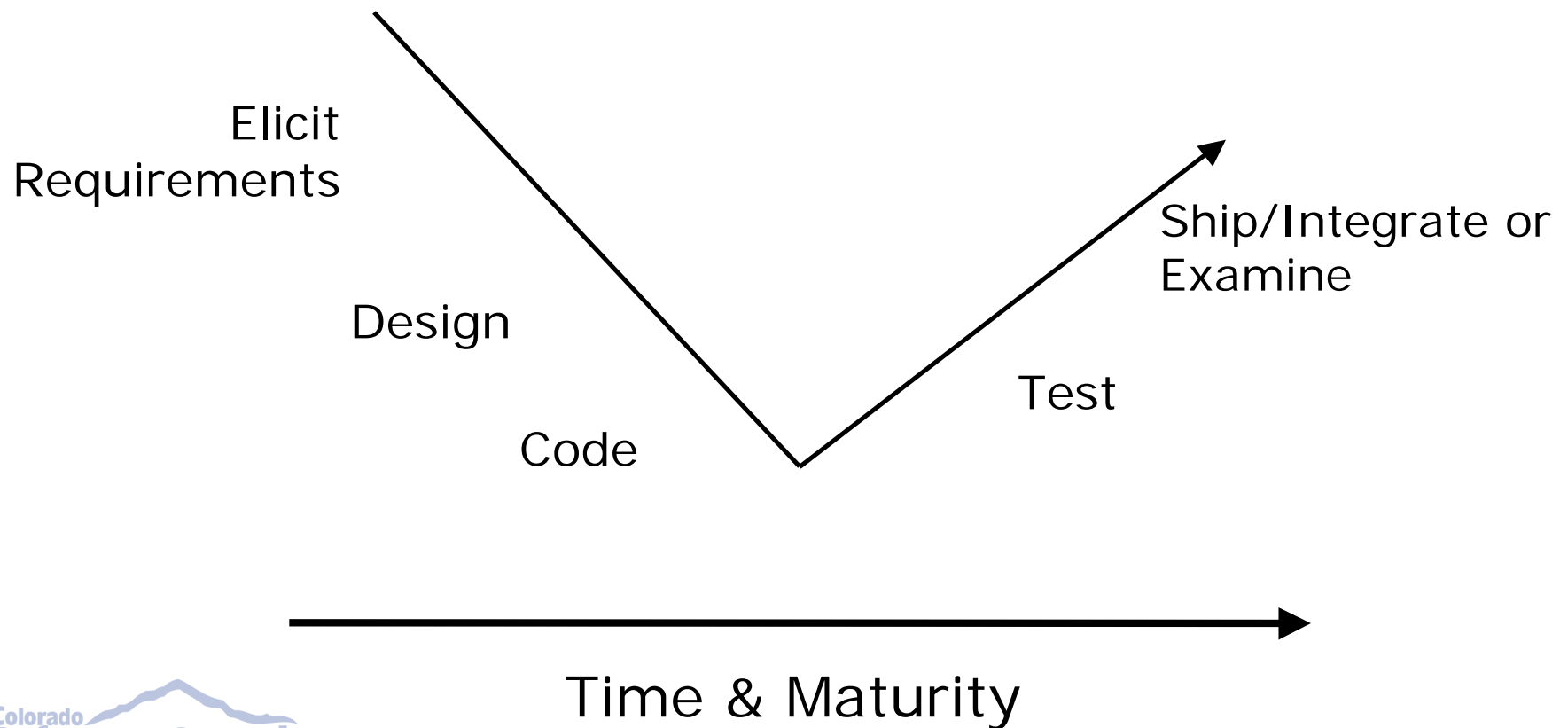


V-Models

- System development and testing model to minimize perception of complexity.
 - Also considered as a testing/validation paradigm
 - Not new, used on an OS/2 project circa 1989
- Graphic model, covers activities & results
- Maps major development processes stages
- Catch it sooner
 - ...the earlier a problem is addressed, the cheaper it is to resolve

Typical Validation (simplified)

Both Incremental and Iterative

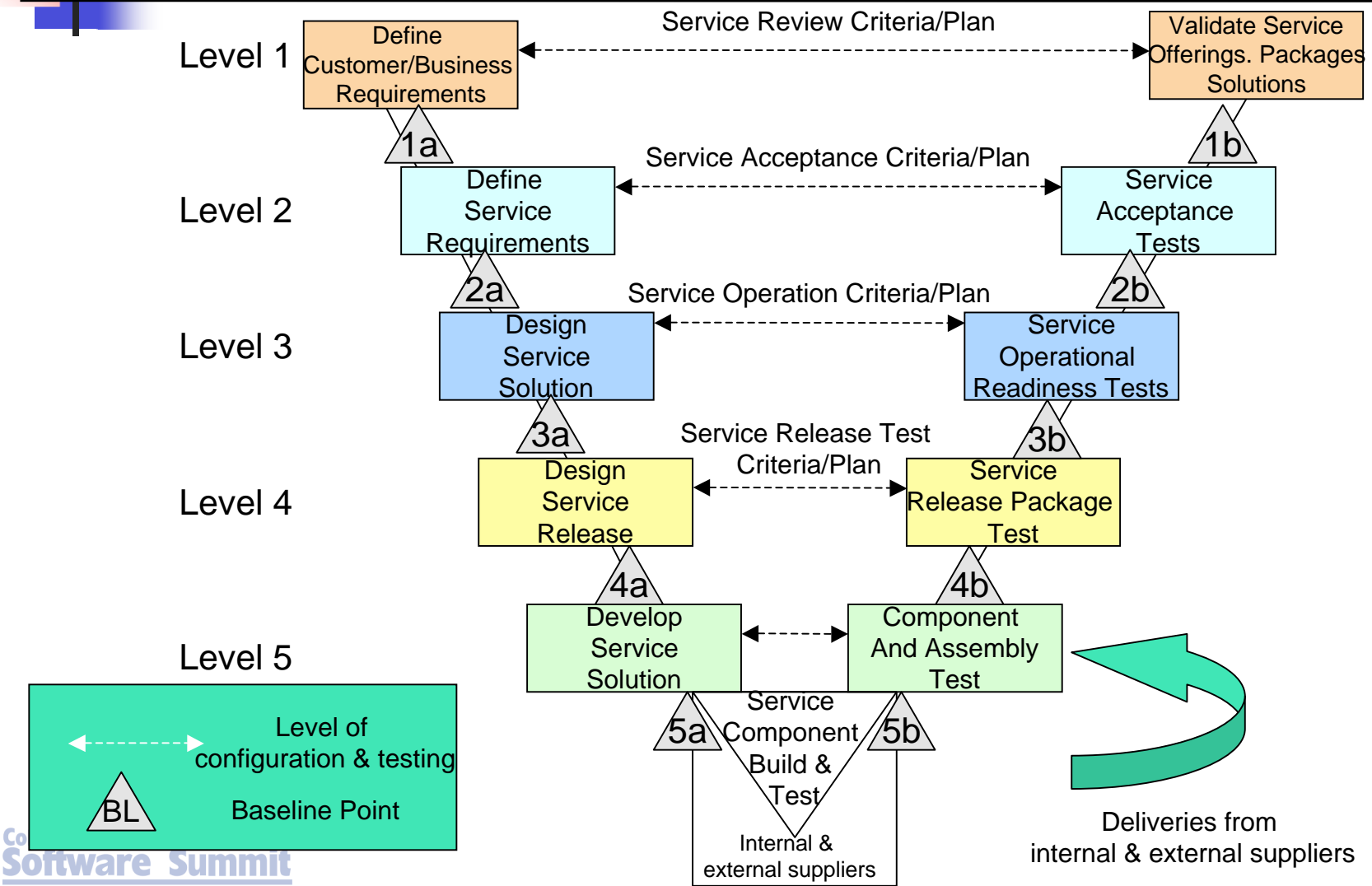




Typical V-Model

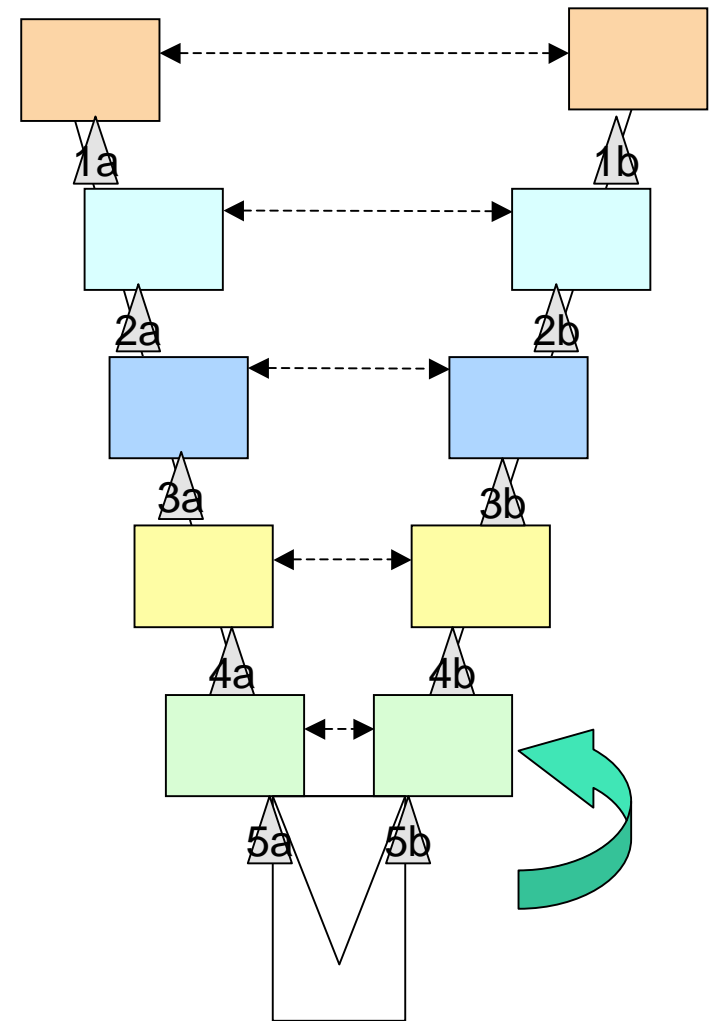
- Originated in waterfall world
- Has been adapted to Agile, RAD
 - Incremental and Iterative
- Typically flowed down left side, up the right
 - Left to right measured both time and maturity
- Doesn't show a direct requirement for customer/user involvement.
 - Though that's what happens with adaptations

Different Validation Model



ITIL V-Model

- Left side is specification
 - Expressed as outcomes
- Right side is validation
- At each level there is direct involvement from all stakeholders (tech and customer)
- Steps down in parallel
 - Customers who sign off on left-side outcomes also sign-off on right-side validation





Validation & Verification

- What's the difference between the two?
- Validation has to do with business need. Validation should be performed against **current** business need.
 - Agile approach helps keep development in sync with business
- Verification determines the completeness, accuracy, and reliability of the deliverable to ensure that it correctly maps the design (and customer expectations)



Why a different model?

- Customer outcomes, not specifications, are (should be) the basis for services.
 - Need a validation model that fits
- Agile development is a technical attempt to address this realization
 - Needs to be more than a technical approach
 - Cooperation is needed from all stakeholders, Customer/end-user, business, and all organizations that are considered part of IT



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Organization Health & Customer Value

- Previously IT/IS was a supporting element for the business...
- ...today IT is a basis for value
 - (Business == IT) & (IT == Business)
- We've talked about organization culture
- Recognizes changing role for IT
- Customer value starts with internal attitude that requires both Business and IT to understand their interdependence.



Value Propositions

- Organizational resources & capabilities have become the basis for creating value, competition, and distinctive performance.
- Organizational efficiency and effectiveness become critical
 - Effective processes achieve agreed objectives
 - Efficient processes achieves objectives with the minimum amount of time, money, people or other resources

Services as Assets

- This is one of the reasons that validation, from a customer perspective, is important
- Think about the purpose for SOA
 - Rename: Business Process Oriented Architecture
 - Talked about the results last year
 - <http://www.softwaresummit.com/2007/speakers/presentations/MoskowitzZenOrTaoOfSOAAndSaaS.pdf>
- Need a way to assure adoption of services
 - Some type of Service Catalog is required
 - Has to be published so that users know the service is available



Service Portfolio

- Investments & commitments of the enterprise
- Service Pipeline: planned & coming services
 - For a market space or a customer
 - Phased into operation through Service Transition
- Service Catalog: Live – in operation
 - Business services, IT services, and 3rd party services
 - Only aspect that recovers costs or earns profit
- Retired Services: services no longer in use
 - Phased out of operation through Service Transition
- Health of the organization can be predicted from the Service Pipeline



Developing the Portfolio

- Complete treatment isn't possible here
- Need approaches that consider strategy
 - Services are *strategic* assets
- Need processes focused on customer outcomes, customer expectations, and customer value
 - It's not about the technology...



Invisible mice revisited

- If the purpose for business is to create a customer...
 - ...then we have to **know**, not guess, at what the customer actually values, the outcomes they want
 - We need actual input, guidance, and contact with the customer throughout the development life cycle
 - Very often 2 constituencies of customers
 - Think Coca Cola (end consumer and the store to purchase)
- **WE** care about the neat stuff, the techie stuff...
 - ...the customer just want it to work
 - Make the mice less visible



Circle back

- Starting question about business purpose
 - Create a customer
- According to PFD: 2 functions for a business
 - Marketing & Innovation.
 - Function: team or group of people & tools they use to carry out 1 or more processes/activities.
- From a business perspective, innovation isn't about invention but about getting better.
 - Innovation is economic, not technical
 - Validation is part of the process



It works...

- By changing the validation models to begin with (and include) customer value, it becomes easier to deliver needed systems
 - Process works with Agile
- One project started with validation models and decreased (cut in half) "re-do" for software service delivery.
 - Specifically re-do caused by missed targets, incorrect systems, lack of understand customer value expectations



Summary

- John Soyring talked about service jobs.
- What IT should offer is IT Service Management to the business.
 - The way to develop trust
 - Move from IT merely supporting the business to IT as an integral vital part of the business
- Requires commitment to *facilitate outcomes customers want to achieve*
 - Formally validated with the customer



Questions & Discussion

*If you
don't ask,
who will?*

*If not now,
when?*



*There
aren't any
dumb
questions.*

*The only dumb
question is the
one not asked!*



Thank You

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Resources

- *Innovation and Entrepreneurship*, Peter F. Drucker, Harper Collins, New York, NY, 1985. ISBN: 0 06015 428 4
- *Management, Tasks, Responsibilities, Practices*, Peter F. Drucker, Collins Business, New York, NY, 1993, ISBN 0 88730 615 2
- *ITIL V3 Lifecycle Publication Suite* (includes 5 volumes, Continual Service Improvement, Service Operation, Service Transition, Service Design, & Service Strategy); Stationery Office (UK); Version 3 edition (July 30, 2007), ISBN-13: 978-0113310500