



Budapest - 30 October 2018

Niels Malotaux

Help !
We have a QA Problem !

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Niels Malotaux

Niels Malotaux is an independent Project Coach and expert in optimizing project performance. He has some 40 years of experience in designing electronic and software systems, at Delft University, in the Dutch Army, at Philips Electronics and 20 years leading a systems design company. Since 1998 he has devoted his expertise to helping projects and organizations to deliver Quality On Time: delivering what the customer needs, when they need it, to enable customer success. To this effect, Niels developed an approach for effectively teaching Evolutionary Project Management (Evo) Methods, Requirements Engineering, Review and Inspection techniques, as well as Reliable Embedded Systems Design and how to achieve Zero Defects for the customer. Since 2001, he has taught and coached well over 400 projects in 40+ organizations in the Netherlands, Belgium, China, Germany, Ireland, India, Israel, Japan, Poland, Romania, Serbia, South Africa, the UK and the US, which has led to a wealth of experience in which approaches work better and which work less well in practice.

Niels puts development teams on the Quality On Time track and coaches them to stay there and deliver their quality systems on time, without overtime, without the need for excuses. Practical methods are developed, used, taught and continually optimized for:

- Evolutionary Project Management (Evo)
- Requirements Engineering and Management
- Reviews and Inspections
- Zero Defects delivery

Within a few weeks of turning a development project into an Evo project, the team has control and can tell the customer when the required features will all be done, or which features will be done at a certain date. Niels enjoys greatly the moments of enlightenment experienced by his clients when they find out that they can do it, that they are really in control, for the first time in their lives.

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Result Management	

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www.malotaux.nl/conferences
www.malotaux.nl/booklets - booklet#8



Niels Malotaux



- Independent Project and Organizational Coach
- Expert in helping optimizing performance
- Helping projects and organizations very quickly to become
 - More effective – doing the right things better
 - More efficient – doing the right things better in less time
 - Predictable – delivering as predicted
- Getting projects on track

Result Management

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We have a QA problem !

- Large stockpile of modules to test (hardware, firmware, software)
- You shall do Full Regression Tests
- Full Regression Tests take about 15 days each
- Too few testers ("Should we hire more testers ?")
- Senior Tester paralyzed
- Can we do something about this?



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For the story: see www.malotaux.nl/booklets - booklet#8: "Help! We have a QA problem!"

The essential ingredient: the PDCA Cycle

(Shewhart Cycle - Deming Cycle - Plan-Do-Study-Act Cycle - Kaizen)

Act

- What are we going to do differently?
- We are going to do it differently!

Plan

- What to achieve
- How to achieve it

Do
Carry out the Plan

Check

- Is the Result according to Plan?
- Is the way we achieved the Result according to Plan?

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The essential technique for continuous improvement is the Deming or Plan-Do-Check-Act cycle. We Do all the time, Planning we do more or less, usually less and for Check and Act we don't have time.

Many people think they know the Deming cycle, but let's see how it really starts working for us.

The intuitive cycle, how we normally work, is the PI-Do-cycle. I can't call it Plan, so I call it only PI. "What was the next thing we are supposed to do?" and we are already doing it. If intuition would be perfect, everything would be perfect. Not everything we do is perfect, so apparently our intuition sometimes points us into the wrong direction.

So, let's first Plan what Result we want to achieve and how we think we can most efficiently achieve that (Planning is twofold: the product and the project). Then we Do according to the Plan. This is the first pitfall: the Plan must be doable and we must follow the Plan. Let's assume we did that, then in the Check phase we can Check (Deming also called it Study phase) whether the Result was according to Plan. If it was according to the Plan, we can think: "Can we do it even better the next time?". If it wasn't according to Plan, we can think: "How can we do it better the next time?". Then comes the Act phase: "What are we going to do differently the next time, because if we don't do anything differently, the result will be the same. If we want to improve we have to decide to do something differently, then Plan and Do accordingly and then Check whether the change actually was an improvement. If yes, can we do it better the next time. If not, can we do it better the next time. In the Act phase we introduce a "mutation" in our way of working, hence we call it the "Evolutionary" approach.

This way, we are continuously improving on the Result (the product), the way we realize the Result (the project) and even how we organize all of this (the process). Actually we can stop now, because using the PDCA technique, you can start from scratch and very quickly find out how to continuously do things better. Because we have been doing this already for a long time, we can save you time and give you a flying start.

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Instead of complaining about a problem ...

(Stuck in the Check-phase)

Let's do something about it !

(Moving to the Act-phase)

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Objectifying and quantifying the problem
 is a first step to the solution



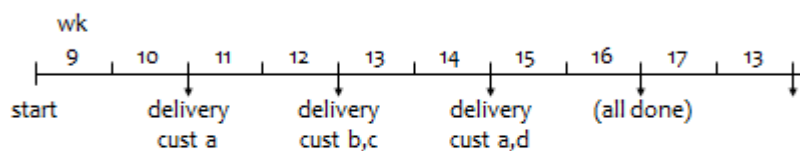
Line	Activity	Estim	Alter native	Junior tester	Devel opers	Customer	Will be done (now-22feb)
1	Package 1	17	2	17	4	HT	
2	Package 2	8	5		10	Chet	
3	Package 3	14	7	5	4	BMC	
4	Package 4 (wait for feedback)	11				McC?	
5	Package 5	9	3		5	Aut	
6	Package 6	17	3	10	10	?	
7	Package 7	4	1		3	CLI	
8	Package 8.1	26	1			Sev	
9	Package 8.2	1	1			?	
10	Package 8.3	1	1			Chet	24 Feb
11	Package 8.4	1	1			Chet	
12	Package 8.5	1.1	1.1			Yet	28 Feb
13	Package 8.6	3	3			Yet	24 Mar
14	Package 8.7	0.1	0.1			CLI	After 8.5 OK
15	Package 8.8	18	18			Aut	
	totals	106	47	32	36		

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TimeLine



Selecting the priority order of customers to be served

- “We’ll have a solution at that date ... Will you be ready for it?”
 Another customer could be more eagerly waiting
- Most promising customers

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Result

- Tester empowered
- Done in 9 weeks
- So called “Full Regression Testing” was redesigned
- Testers kept up with development ever since
- Customers systematically happy and amazed
- Increased revenue

Later:

- Tester promoted to product manager
- Still coaching successors how to plan

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TimeLine

- Cutting the work into chunks
- Estimating
- Adding up (averages the uncertainties!)
- Usually doesn't fit in the available time
- Find strategies to solve the dilemma
- Select 'optimum' strategy
- Predict what will happen when
- Learn and repeat every week, keeping predictions up-to-date

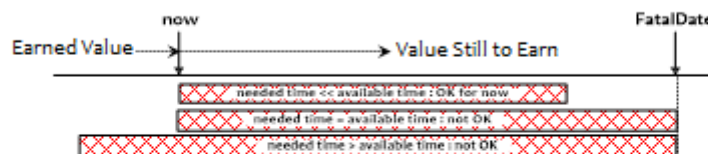
Line	Activity	Estim	After native	Junior tester	Devel agent	Customer	Will be done (between Feb)
1	Package 1	17	3	12	8	NT	
2	Package 2	8	5	16	16	Clvt	
3	Package 3	14	7	3	8	BMC	
4	Package 4 (wait for feedback)	11				BMC	
5	Package 5	9	3		3	Aut	
6	Package 6	17	3	10	10	?	
7	Package 7	6	1		3	Cl	
8	Package 8.1	1	1			Sev	
9	Package 8.2	1	1			?	
10	Package 8.3	1	1			Clvt	24 Feb
11	Package 8.4	1	1			Clvt	
12	Package 8.5	1.1	1.1			Tst	25 Feb
13	Package 8.6	3	3			Tst	14 Mar
14	Package 8.7	0.7	0.7			Cl	After 8.5 OK
15	Package 8.8	18	18			Aut	
total		108	42	32	38		

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What do we do if we see we won't make it on time ?



- Value Still to Earn
- versus
- Time Still Available
- If it doesn't fit ... count backwards
- If the match is over, you cannot score a goal



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Deceptive options

- **Hoping for the best** (fatalistic)
- **Going for it** (macho)
- **Working Overtime** (fooling ourselves)
- **Moving the deadline**
 - Parkinson's Law
 - Work expands to fill the time for its completion
 - Student Syndrome
 - Starting as late as possible, only when the pressure of the FatalDate is really felt

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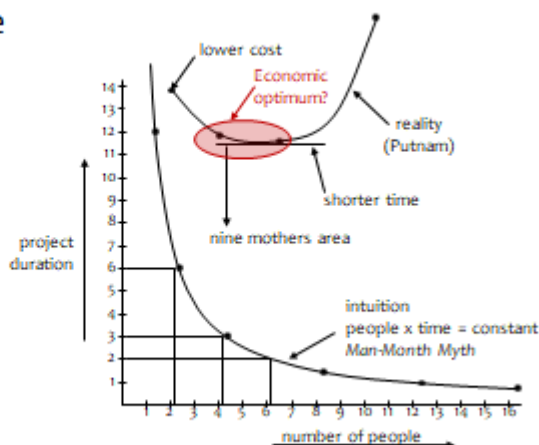
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See <https://www.malotau.eu/nrmc.php?id=options>

The Myth of the Man-Month

Brooks' Law (1975)
 Adding people to a late project makes it later



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Saving time

Continuous elimination of waste

We don't have enough time, but we can save time without negatively affecting the Result!

- **Efficiency in what (why, for whom) we do** - doing the right things
 - Not doing what later proves to be superfluous
- **Efficiency in how we do it** - doing things differently
 - **The product**
 - Using proper and most efficient solution, instead of the solution we always used
 - **The project**
 - Doing the same in less time, instead of immediately doing it the way we always did
 - **Continuous improvement and prevention processes**
 - Constantly learning doing things better and overcoming bad tendencies
- **Efficiency in when we do it** - right time, in the right order
- **TimeBoxing** - much more efficient than FeatureBoxing



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- **Plan-Do-Check-Act**
 - The powerful ingredient for success
- **Business Case**
 - Why we are going to improve what
- **Requirements Engineering**
 - What we are going to improve and what not
 - How much we will improve: quantification
- **Architecture and Design**
 - Selecting the optimum compromise for the conflicting requirements
- **Early Review & Inspection**
 - Measuring quality while doing, learning to prevent doing the wrong things
- **Weekly task Cycle**
 - Short term planning
 - Optimizing estimation
 - Promising what we can achieve
 - Living up to our promises
- **Bi-weekly Delivery Cycle**
 - Optimizing the requirements and the doing the assumptions
 - Soliciting feedback by delivering Real Results to eagerly waiting Stakeholders
- **TimeLine**
 - Getting and keeping control of Time: Predicting the future
 - Feeding program/portfolio/resource management

Evolutionary Project Management
elements (Evo) - Tom Gilb

Zero
Defects
Attitude

Evo Project Planning - Niels

Right Result
 Quality On Time
 Right Time

Why
 What
 How much
 Are we done
 How
 Check as early
 as possible
 Efficiency
 of what we do
 Effectiveness
 of what we do
 What will happen and
 what will we do about it?

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Help ! - We have a QA Problem !

→ Problem solved ←

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www.malotaux.nl/booklets - booklet#8

www.malotaux.nl/booklets

- 1 Evolutionary Project Management Methods (2001)
Issues to solve, and first experience with the Evo Planning approach
- 2 How Quality is Assured by Evolutionary Methods (2004)
After a lot more experience: rather mature Evo Planning process
- 3 Optimizing the Contribution of Testing to Project Success (2005)
How Testing fits in
- 3a Optimizing Quality Assurance for Better Results (2005)
Same as Booklet 3, but for non-software projects
- 4 Controlling Project Risk by Design (2006)
How the Evo approach solves Risk by Design (by process)
- 5 TimeLine: How to Get and Keep Control over Longer Periods of Time (2007)
Replaced by Booklet 7, except for the step-by-step TimeLine procedure
- 6 Human Behaviour in Projects (APCOSE 2008)
Human Behavioural Aspects of Projects
- 7 Evolutionary Planning, or How to Achieve the Most Important Requirement (2008)
Planning of longer periods of time, what to do if you don't have enough time
- 8 Help ! We have a QA Problem ! (2009)
Use of TimeLine technique How we solved a 6 month backlog in 9 weeks
- RS Measurable Value with Agile (Ryan Shriver - 2009)
Use of Evo Requirements and Prioritizing principles

www.malotaux.nl/inspections
Document Inspection pages

More

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