

# Testability & Review

A check on the testability of requirements and designs and preserving review information

Babylon-dt



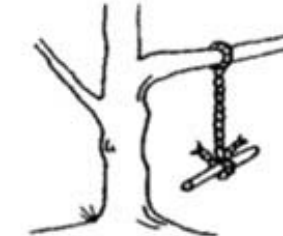
November 4<sup>th</sup> 2009

AND PAUSED. "FORTY-TWO," SAID DEEP THOUGHT, WITH INFINITE MAJESTY AND CALM. IT WAS A LONG TIME BEFORE ANYONE SPOKE OUT OF THE CORNER OF HIS EYE PROUDLY. "I COULD SEE THE SEA OF TENSE EXPECTANT FACES DOWN IN THE SQUARE OUTSIDE. "WE'RE GOING TO GET LYONCHIED, AREN'T WE?" HE WHISPERED. "IT WAS A TOUGH ASSIGNMENT," SAID DEEP THOUGHT MILDLY. "FORTY-TWO" YELLED LOUNQUAWL. "IS THAT ALL YOU'VE GOT TO SHOW FOR SEVEN AND A HALF MILLION YEARS' WORK?" "I CHECKED IT VERY THOROUGHLY," SAID THE COMPUTER. "AND THAT QUITE DEFINITELY IS THE ANSWER. I THINK THE PROBLEM, TO BE QUITE HONEST WITH YOU, IS THAT YOU'VE NEVER ACTUALLY KNOWN WHAT THE QUESTION IS." "BUT IT WAS THE GREAT QUESTION! THE ULTIMATE QUESTION OF LIFE, THE UNIVERSE AND EVERYTHING!" HOWLED LOUNQUAWL. "YES," SAID DEEP THOUGHT WITH THE AIR OF ONE WHO CURELY ENJOYS DEADLY YOGURT. "WHAT ACTUALLY CAUSED A SLOW STANFORDER TO ASK DEEP? OVER THE LAST 45 MILLION YEARS

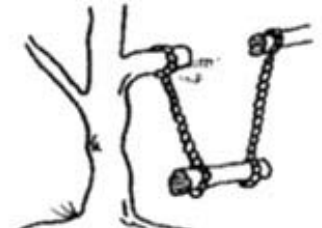
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- Documentation Test
- Triggers
- Successes & Problems
- *dt-42*

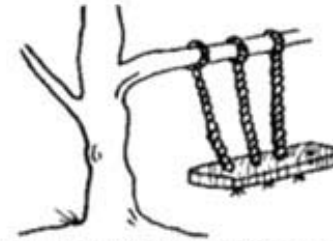
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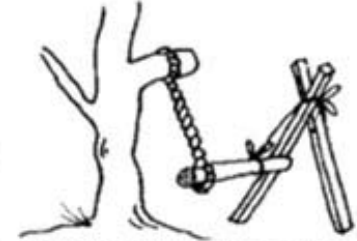
What the user asked for



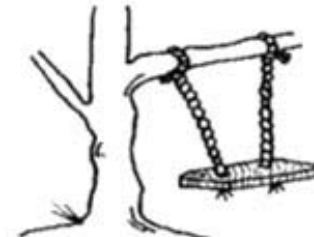
How the analyst saw it



How the system was designed



As the programmer wrote it



What the user really wanted



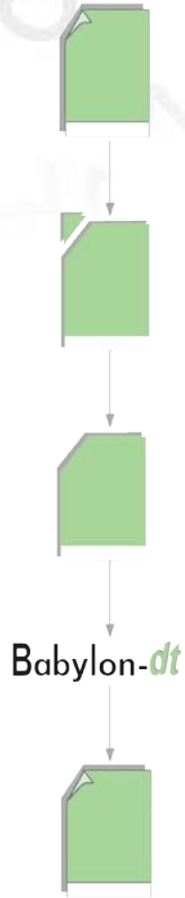
How it actually works

AND PAUSED. "FORTY-TWO" SAID DEEP THOUGHT, WITH INFINITE MAJESTY AND CALM. IT WAS A LONG TIME BEFORE ANYONE SPOKE, OUT OF THE CORNER OF HIS EYE PHOENIX COULD SEE THE SEA OF TENSE EXPECTANT FACES DOWN IN THE SQUARE OUTSIDE. "WE'RE GOING TO GET LYONHED, AREN'T WE?" HE WHISPERED. "IT WAS A TOUGH ASSIGNMENT," SAID DEEP THOUGHT MILDLY. "FORTY-TWO" YELLED LOUNQUAWL. "IS THAT ALL YOU'VE GOT TO SHOW FOR SEVEN AND A HALF MILLION YEARS' WORK?" "I CHECKED IT VERY THOROUGHLY," SAID THE COMPUTER, "AND THAT QUITE DEFINITELY IS THE ANSWER. I THINK THE PROBLEM, TO BE QUITE HONEST WITH YOU, IS THAT YOU'VE NEVER ACTUALLY KNOWN WHAT THE QUESTION IS." "BUT IT WAS THE GREAT QUESTION! THE ULTIMATE QUESTION OF LIFE, THE UNIVERSE AND EVERYTHING! HOW DID I LOOK QUAWL." "YES," SAID DEEP THOUGHT WITH THE AIR OF ONE WHO CHERISHES PAIN AS DEARLY AS THAT WHAT ACTUALLY CAUSED A SLIGHT STAMMER IN HIS VOICE DEEP OVER THE WALL, AS OTHER STARS

# Case Study

➤ Over 50% of ICT projects start developing before test involvement.

- Poor testability
- Test initiated changes
- Degradation of quality

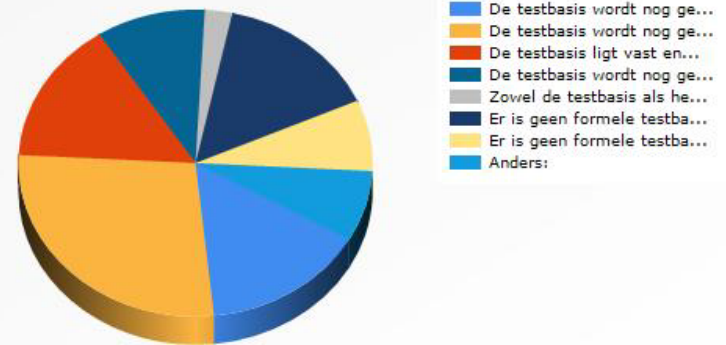


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value

TESTING WITH VISION

Vraag 4  
Op welk moment van het project ben je gestart in je testrol?  
Denk hierbij aan het V-model.



Onderzoek uitgevoerd in jan 2009, in samenwerking met Test Value

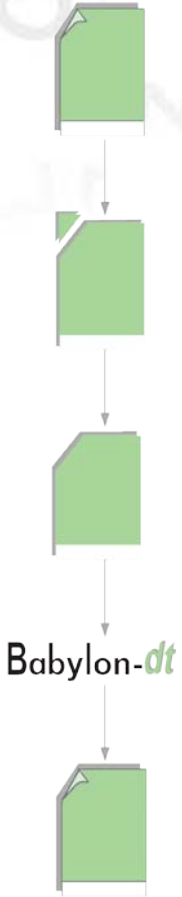
# Prevent or Fix

## ➤ Prevent

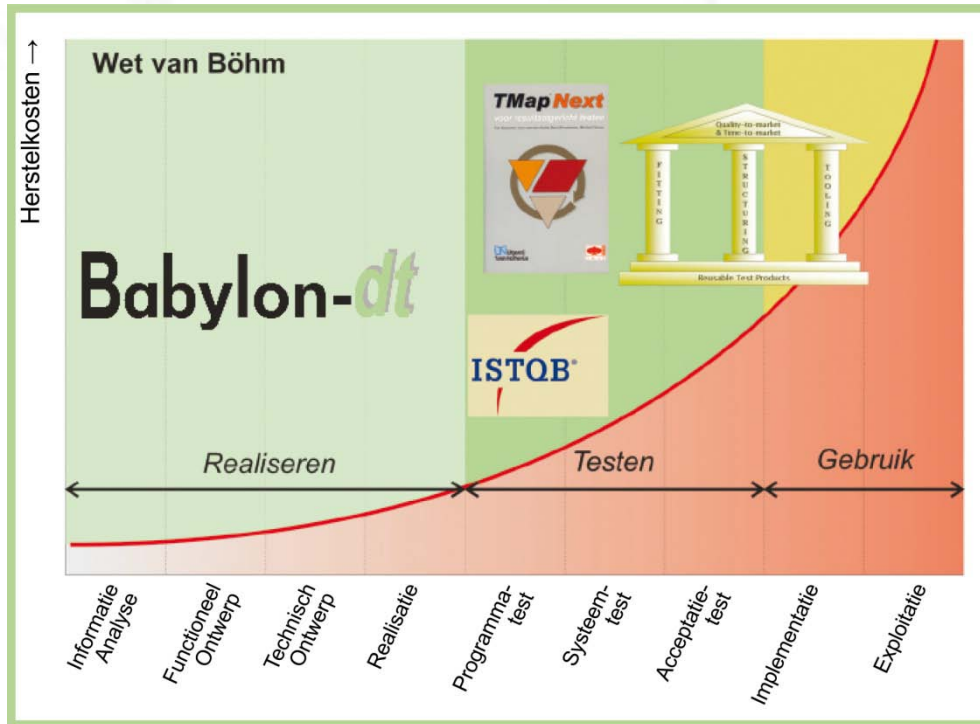
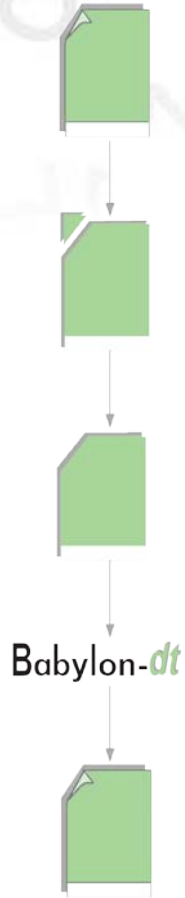
- Early involvement
- Time to change
- Limited consequences
- Adoption of the solution

## ➤ Fix

- Check afterwards
- Critical time path
- Limited possibilities
- Change of the adopted solution

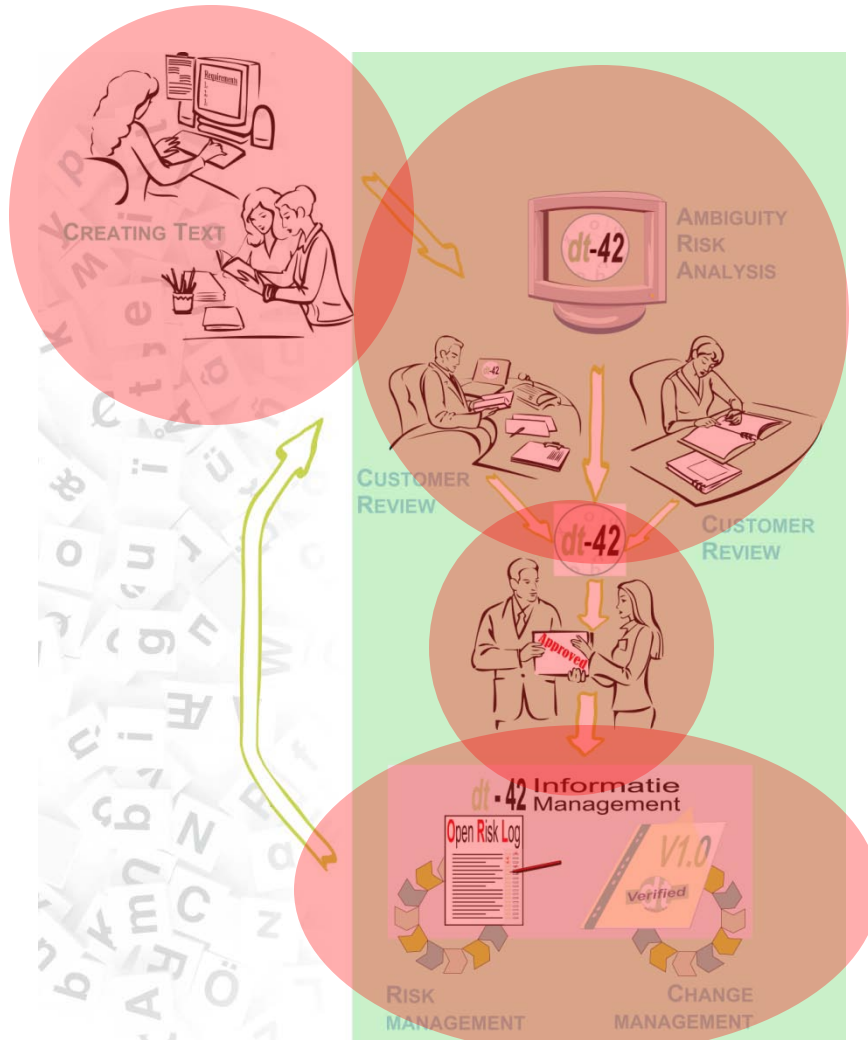
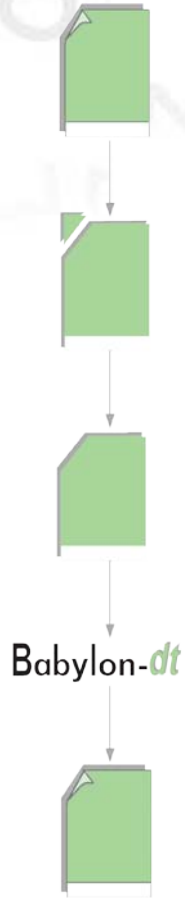


# De wet van .....



AND PAUSED. "FORTY-TWO," SAID DEEP THOUGHT, WITH INFINITE MAJESTY AND CALM. IT WAS A LONG TIME BEFORE ANYONE SPOKE OUT OF THE CORNER OF HIS EYE PROUDLY. "COULD SEE THE SEA OF TENSE EXPECTANT FACES DOWN IN THE SQUARE OUTSIDE. "WE'RE GOING TO GET LYONCHIED AREN'T WE?" HE WHISPERED. "IT WAS A TOUGH ASSIGNMENT," SAID DEEP THOUGHT MILDLY. "FORTY-TWO" YELLED LOUNQUAWL. "IS THAT ALL YOU'VE GOT TO SHOW FOR SEVEN AND A HALF MILLION YEARS' WORK?" "I CHECKED IT VERY THOROUGHLY," SAID THE COMPUTER, "AND THAT QUITE DEFINITELY IS THE ANSWER. **I THINK THE PROBLEM, TO BE QUITE HONEST WITH YOU, IS THAT YOU'VE NEVER ACTUALLY KNOWN WHAT THE QUESTION IS.**" "BUT IT WAS THE GREAT QUESTION! THE ULTIMATE QUESTION OF LIFE, THE UNIVERSE AND EVERYTHING!" HOWLED LOUNQUAWL. "YES," SAID DEEP THOUGHT WITH THE AIR OF ONE WHO SUFFERED EARLY DEATH. "BUT WHAT ACTUALLY IS IT? A SLOW STRAINER? SINCE DEEP THOUGHT OVER THE WALL, AS OTHER STARS

# Documentation Test



AND FAUSED. "FORTY-TWO" SAID DEEP THOUGHT, WITH INFINITE MAJESTY AND CALM. IT WAS A LONG TIME BEFORE ANYONE SPOKE OUT OF THE CORNER OF HIS EYE PROUDLY. "COULD SEE THE SEA OF TENSE EXPECTANT FACES DOWN IN THE SQUARE OUTSIDE. "WE'RE GOING TO GET LYONHED. AREN'T WE?" HE WHISPERED. "IT WAS A TOUGH ASSIGNMENT," SAID DEEP THOUGHT MILDLY. "FORTY-TWO" YELLED LOUNQUAWL. "IS THAT ALL YOU'VE GOT TO SHOW FOR SEVEN AND A HALF MILLION YEARS' WORK?" "I CHECKED IT VERY THOROUGHLY," SAID THE COMPUTER. "AND THAT QUITE DEFINITELY IS THE ANSWER. I THINK THE PROBLEM, TO BE QUITE HONEST WITH YOU, IS THAT YOU'VE NEVER ACTUALLY KNOWN WHAT THE QUESTION IS." "BUT IT WAS THE GREAT QUESTION! THE ULTIMATE QUESTION OF LIFE, THE UNIVERSE AND EVERYTHING! HOW'D I LOOK QUAWL." "YES," SAID DEEP THOUGHT WITH THE AIR OF ONE WHO CURELY KNOWS EXACTLY WHAT ACTUALLY HAPPENED. "A BLOW STRIKER'S FINITE DEERT OVER THE LASH, AS OTHER STAFF

# Triggers

Het moet mogelijk gemaakt worden om een verzoek in te dienen ten behoeve van de andere gebruikers.

## ➤ Ambiguity indication (Triggers)

- Define possible ambiguity words (Triggers)
- Find a trigger in a document
- Analyze the context of the trigger
- Decide if there is a Risk
- In case of a risk, present it to the user.

**Opmerking [JB1]:** Conditioneel

**mogelijk**

Dit impliceert een keuze. Is expliciet beschreven welke keuzes er zijn en op basis van welke voorwaarden/variabelen deze keuzes gemaakt dienen te worden. Dit kan gespecificeerd worden door bijvoorbeeld gebruik te maken van één of meerdere ALS - DAN - ANDERS beschrijvingen. Dit voorkomt discussie over de keuze vraag.

**Opmerking [JB2]:** Verwijzing

**andere**

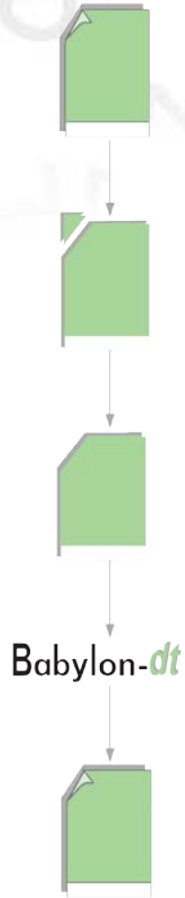
Deze term refereert ergens naar. Is dit concreet en meetbaar beschreven? Tip: Uitschrijven i.p.v. refereren voorkomt veel interpretatieproblemen.

Babylon-*dt*

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# Successes & Problems

- The concept behind our approach is fundamentally wrong but .....
- Research of the Tilburg University says it's possible:  
*'Detecting ambiguity in requirements has a bright future and will be used world-wide in ten years from now'*
- NAACL HLT 2009, Ted Pedersen agrees on the practical approach
- Context makes the difference



***How to proceed?***

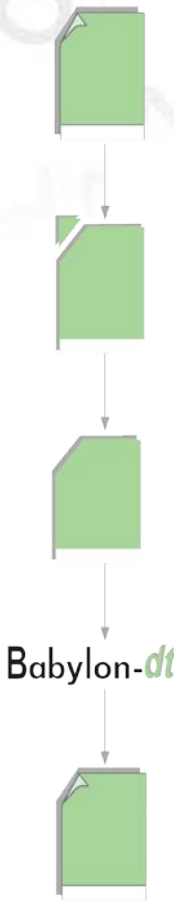


*We never saw father anymore*



# Starting point

## What we Know

- 
- **Our Word plug-in works**
    - Triggers can indicate ambiguity
    - Limited configuration options
  - **Results are promising**
    - Ambiguity indications help improve document
    - Not all ambiguity risks can be solved right away
    - Review & decision information gets lost

## What we Want

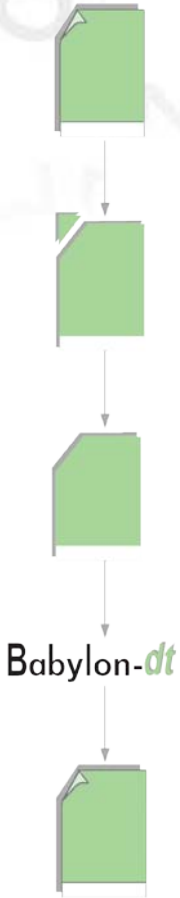
- **More functionality**
  - A higher precision
  - Classification of Triggers
- **Risk management**
  - Easy access to ambiguity risks
  - A dynamic Risk log
  - Preservation of Review & decision information

## ➤ Build a framework

- Ambiguity Risk Analysis (ARA)
- Customer reviews

## ➤ Start working

- Add field experience
- Invite early adapters
- Tell the world



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