TRIZ Application for Developing new UX

KunWoo Baek
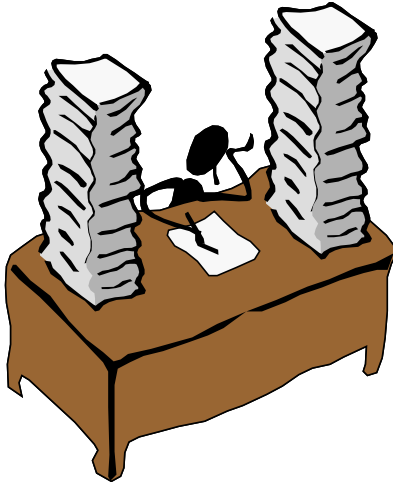
Samsung Electronics, kw2.baek@samsung.com

Jun-Young Lee
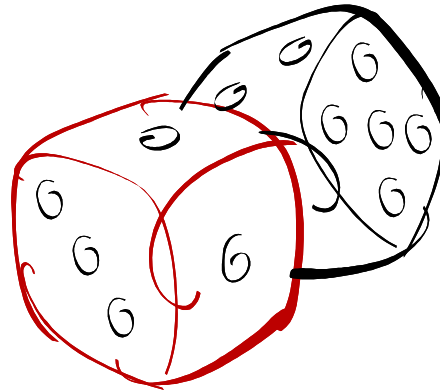
Samsung Electronics, junbbang@samsung.com

Background

◆ Received VOC (from S/W & UX Engineers)

Low ratio for using TRIZ
(Busy, No time)

Low probability for Excellent Solution
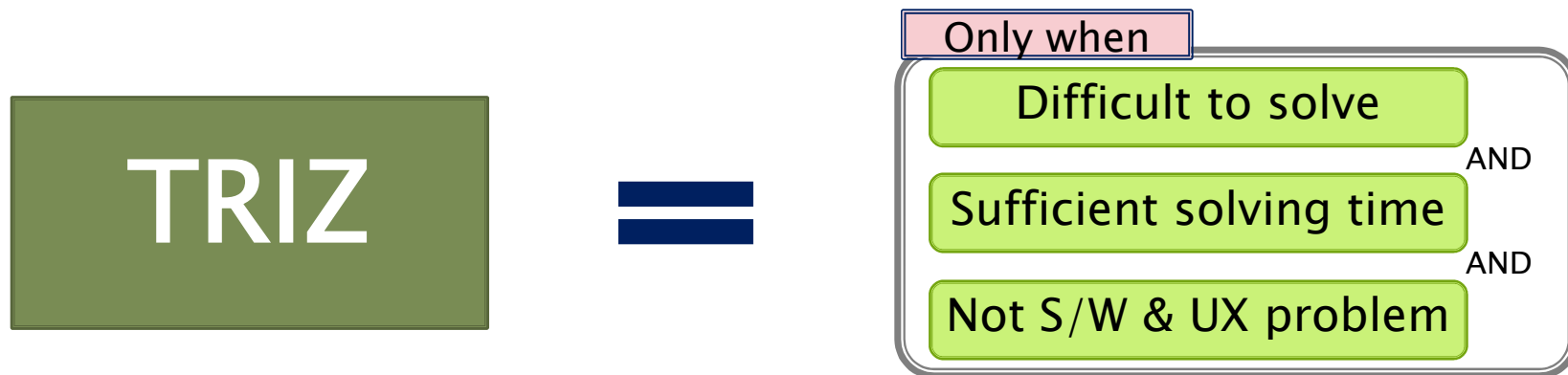(When using TRIZ,
In comparison with an effort)
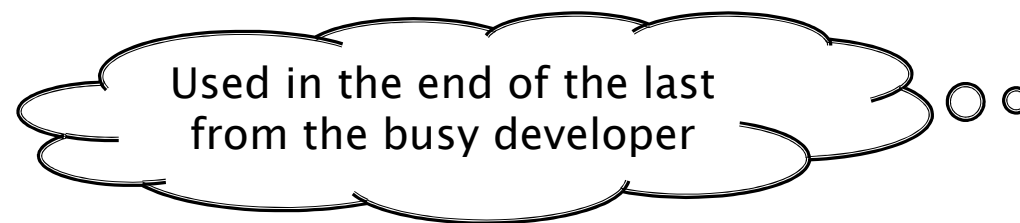
Difficulty for solving problem
(for S/W & UX)

➢ Experiential + Intuitive Solution

Background

➢ Viewpoint of S/W & UX Engineers for TRIZ

TRIZ =
Only when
- Difficult to solve

AND

- Sufficient solving time

AND

- Not S/W & UX problem

That is, TRIZ is the tool used in special occasion.

Used in the end of the last from the busy developer

TRIZ

Concept

▸ If there is the tool of TRIZ for the busy
S/W & UX engineers?
(Not in the end of the last, Light, Used in normal time)

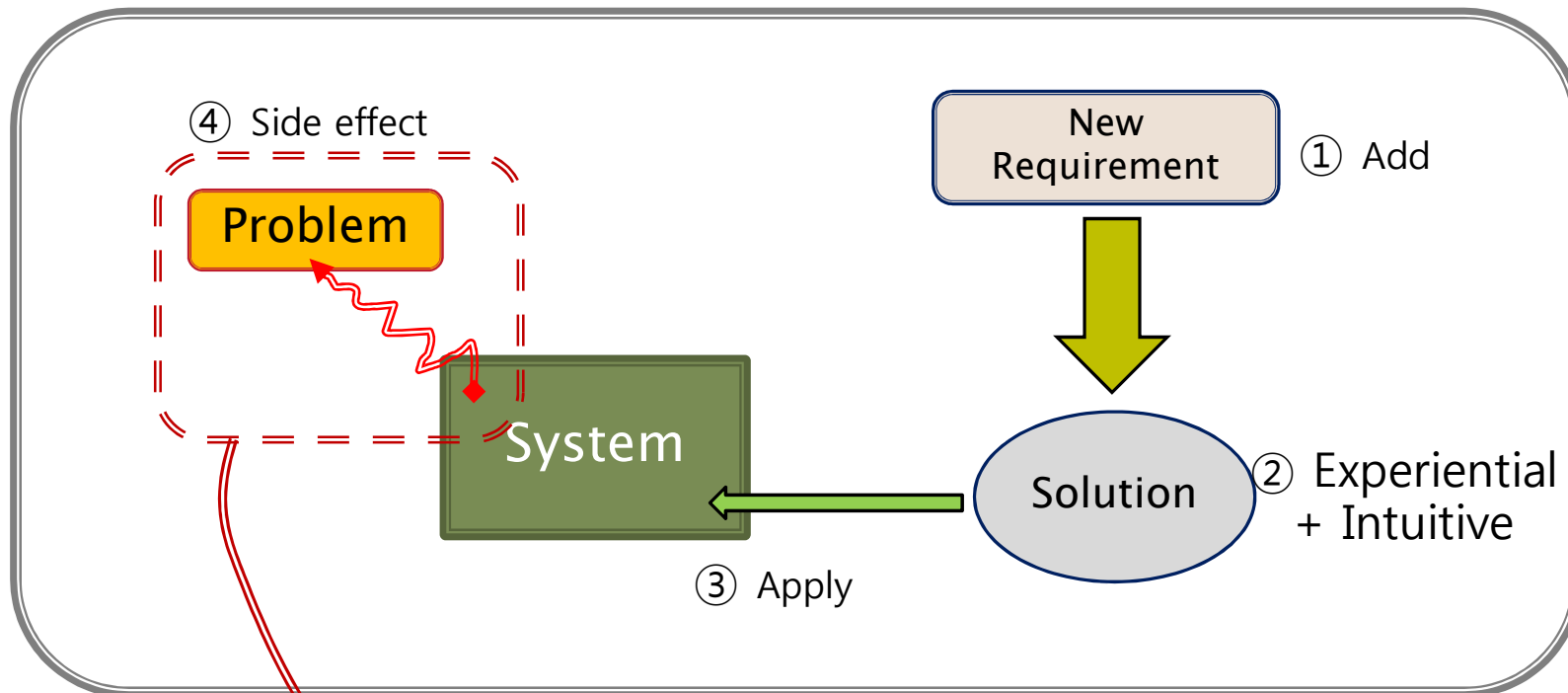The terms 1.
More quickly

The terms 2.
More efficiently

The terms 3.
View point of engineers

➢ Simple + Detailed + Easy

Global
TRIZ
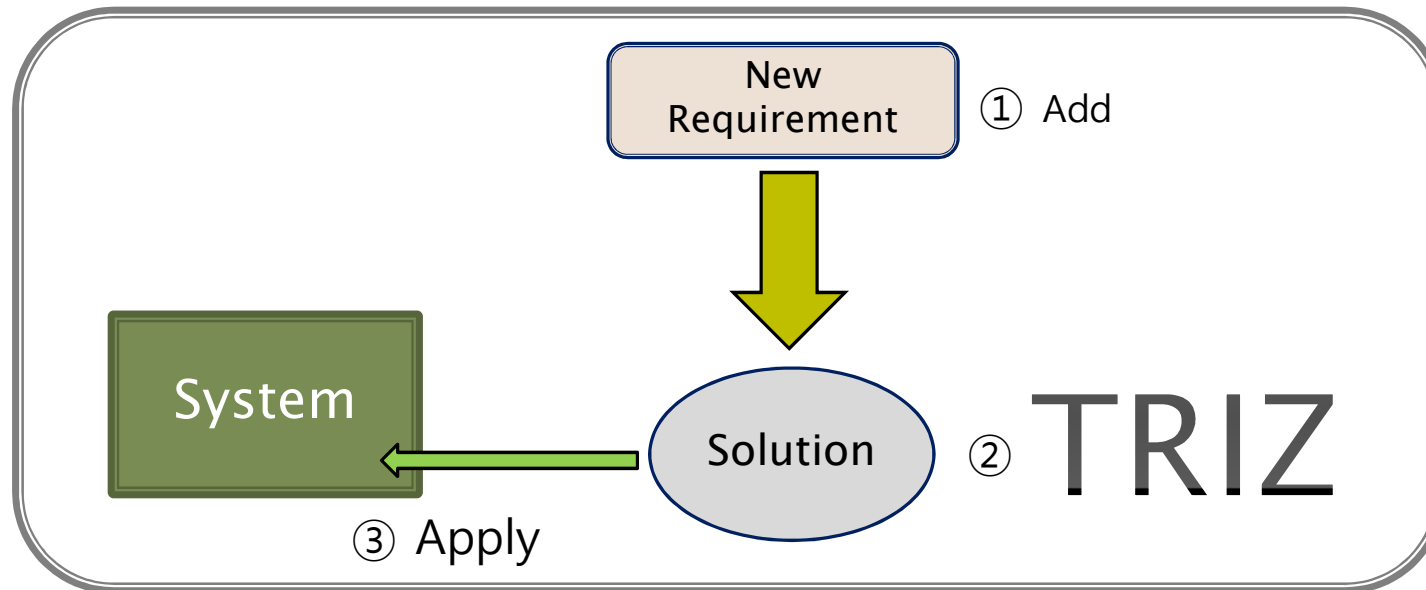Conference 2013 in Korea

Concept (Observation)

▸ The major Pattern which S/W & UX Engineers experience

Concept (Hypothesis)

▸ If TRIZ is used in deriving solution about New Requirement?

Concept (Expectation)

Reduce time
(Deriving solution)

Increase probability
(Deriving excellent
solution)

Reuse
+
Diffusion

Reduce side effect

= $ +
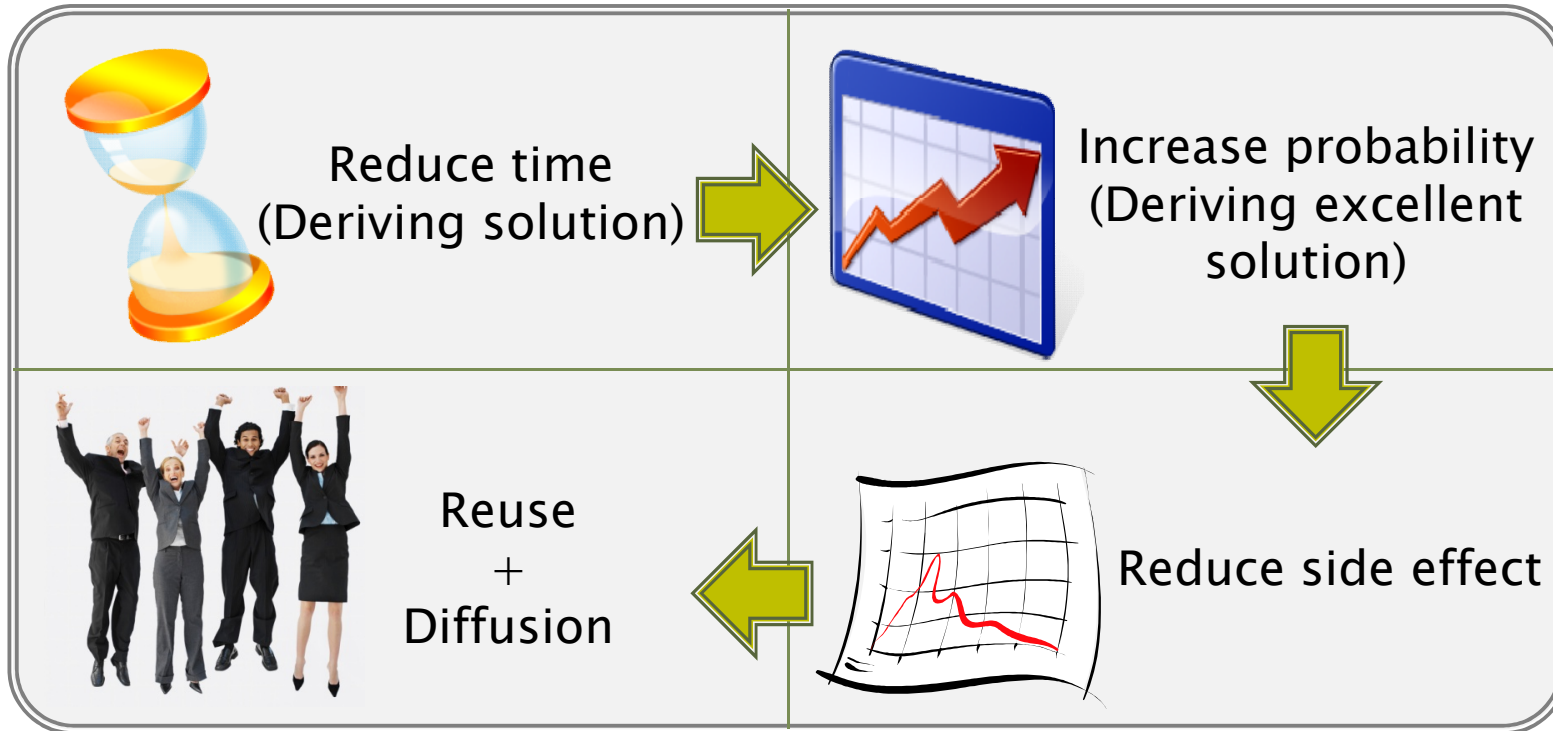
Reduce cost
(Developing S/W & UX)

Increase probability
(Innovative S/W & UX)

Global TRIZ Conference 2013 in Korea
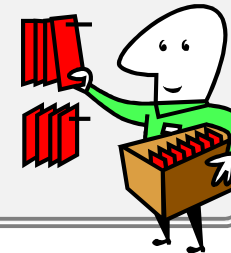
Work

Analysis

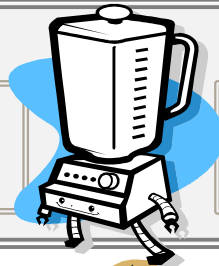| S/W & UX Solution + IP (about 1000)	Well known & The latest S/W technology (about 100)

Classify

Requirement + The way to analysis/approach + Used resources

Combine/Mix

Classified outcome	S/W TRIZ Invention principles (TRIZ Journal + Goldfire)

RR Table completion (Ver 1.0, 2012.6)
※ RR Table = Requirement Recommendation Table

Screen Shot 1

활용 빈도수: 높음 | 5 | 4 | 3 | 2 | 1 | 0 | 낮음

Num	개선하고자 하는 요소	Requirements	Lists of Recommended Principles
1	가동률	operation ratio	
2	구현 노력	implementation efforts	
3	다양성/다기능성	versatility/adaptability	
4	데이터(파일) 크기	data size(file size)	
5	데이터 무결성	data integrity	
6	데이터 접근 속도	speed of data access	
7	데이터 중복	data duplication	
8	메모리 사이즈	memory size	
9	메모리 효율	memory efficiency	
10	보안	security	
11	복잡도(코드, 시스템)	complexity(code, system)	Detailed Information
12	비용(통신, 업데이트, 자원)	cost(communication, update, resources)	Removed
13	사용성(편리성)	ease of use	(For security)
14	속도(실행, 전송, 처리)	speed	
15	시간 손실	loss of time	
16	시간 당 데이터 처리량/성능	throughput/performance	
17	신뢰성	reliability	
18	안정성	stability	
19	외향, 미학, 감각학	appearance/aesthetics	
20	유지 보수성	maintainability	
21	유해 효과 활용	use of harmful effects	
22	코드 길이	code size	
23	탐색 성능(사람, 컴퓨터)	detectability(user, computer)	
24	확장성, 호환성	compatibility/connectability	

- Classify as a view of Requirements
- Guide with high frequency order

Screen Shot 2

5th Principle		
Software Concept	Original Concept (by Altshuller)	
	통합	
	Merging	
현상/문제분석 Guide		
Idea 발상 Guide		
Software 활용 대표 사례		

Detailed Information Removed (For security)

- Guide with the analysis way of current situation & problem + Idea generation
- Provide sample for deriving Concept & S/W & UX

Project application (Test)

▸ Galaxy Tablet 10.1 Multi-window Project
▸ Target: New UX concept derivation utilizing
     Multi-window
▸ Period: 2012.7 ~ 9 (For 2 months, 4 hours per a week)
▸ Result: Many patent application +
     implementation

➢ The only one case will be shared.

Application example

How many numbers of User Action?

Global
TRIZ
Conference 2013 in Korea

Application example

It will be shared in detail on oral presentation.

- How to use RR(Requirement Recommendation) Table
- The process for producing Idea or Solution

Future Work

▸ RR Table Ver 2.0 Upgrade (= TRIZ for NUX)
→ To supplement problems which are found out
among the project.
→ To apply additional VOC
→ To apply the results of observation
how engineers generate their ideas with TRIZ
→ To apply the method of idea acceleration

▸ Make and distribute App
(For smart-phone user, Engineers)

Thank you very much