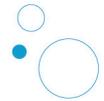


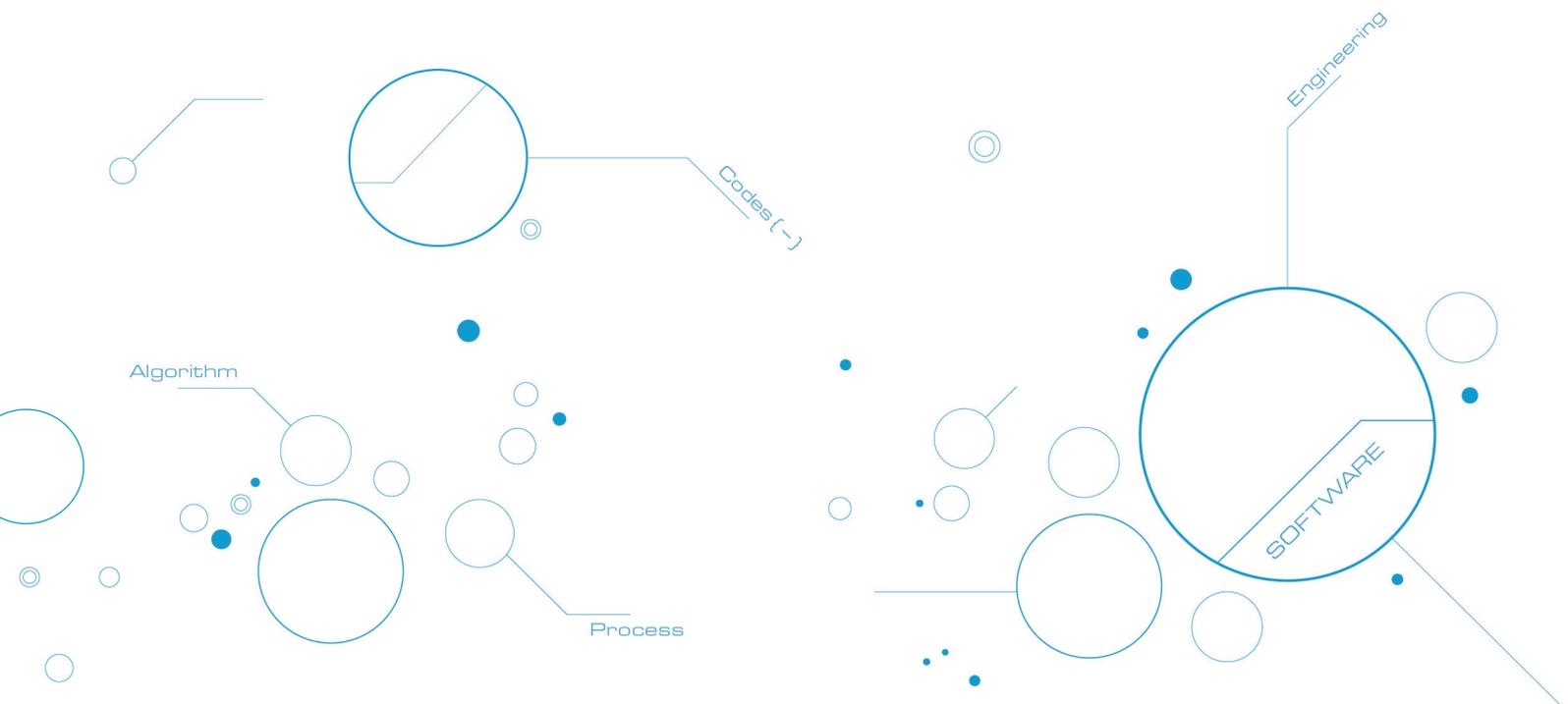
We lead Synergy,  
Innovation and Creativity  
to deliver great vision.

People have no idea what causes their difficulties.  
In difficulties, we can be of your help.  
Our help is logical and well-organized (structural).



# Thinkfor**B**L

CONSULTING GROUP



# WHY ARE WE DIFFERENT?

## 我々は 問題の根源を 探します。

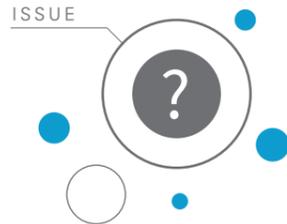
あなたは問題の本当の原因がどこにあるのか分からない事が多いと思います。大体のコンサルティングは 痛みの原因がなぜなのか分からないのまま、手術しようとする、危険で間違った治療を取っています。どんな問題でも、専門家だけが出来る解決策があります。我々は、あなたの問題を解決するために 関係者及び消費者、パートナー、またはライバルからも話しを聞いています。時にはあなたの会社に入社して、合宿してオリエンテーションを受けることもあります。我々は、 本当の問題を解決するまで 締める事は 絶対ありません。

## 我们在寻找实际问题的根源.

我们都会想不到什么是真正的实际问题. 大部分的咨询服务不知道实际存在问题的情况下, 先行动. 但是这样的方式是不正确的方式, 并且是很危险的治疗方式. 所有的问题, 只有专家才能看清楚的, 才能找出其原因并有解决方法. 我们为了 将解决您的问题, 一一跟相关人员・以及消费者和协作单位, 甚至有时候还会跟 竞争单位的人见面听听他们的想法(包括经验, 观点, 错案 等) 有时候我们直接就 职到你们公司, 迎新营 找不出真正的问题和解决问题之前, 我们绝对不撤退.

## We get to the root of a problem.

You often have no idea what a real problem is. Most consulting services are too quick on advising without knowing what a real problem is. All problems have causes and solutions that only experts can diagnosis. For wide understand of your problem, we not only encounter with the clients but also customers, your business partners, even your competitors. We are sincerely dedicated to find the root of your problem, even by working at your company as an employee. We never back down until we know what the problem is and until solved completely.



## 我々は あらゆる手段を 使います。

SW工学での品質問題には、ほとんど思わぬところから始まるのです。部門間のコラボレーション、コミュニケーションの不足からプログラマーの価値観などの違いで、「品質管理」まで 目が届かなかったことが 本当の原因があると考えられます。我々はすべての可能性を生かして、すべての方法を活用しています。必要に応じて組織心理学、組織行政学、消費者心理学、社会学と哲学の分野の専門家が 私達と一緒に問題を診断し、解決策を作成します。ソフトウェア工学は、すべての問題の為に科学的、技術的な解決策を提示する必要があります。

## 我们会调动一切手段.

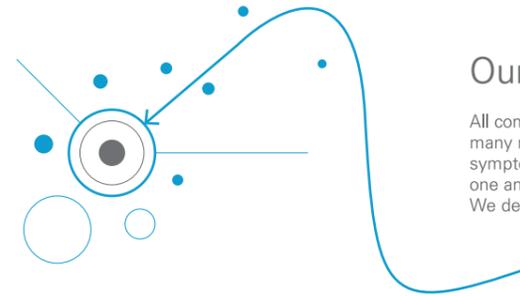
在SW工学里, 品质问题的发生, 大部分都在我们预想不到之处开始. 部门之间的 协作, 沟通, 编程员的价值观 等 ‘品质管理’ 没到位的地方都会出现真正问题的原因. 我们会考虑所有的可能性, 并运用所有的方法. 必要时, 组织心理学, 组织行政学, 消费者心理学, 社会学和哲学领域的专家会与我们一起诊断问题并找出解决方法. SW工学要提示, 对所有问题的科学化, 技术化的解决方法.

## We use every means to solve a problem.

It is mostly where you hardly expected that most of quality issues occurs in software engineering. Such as co-working, communication among members and programmer's value, the real cause could be somewhere where the quality assurance process couldn't detect. We consider all options and every method. Experts in organizational psychology, organizational administration, consumer psychology, sociology, philosophy are also with us when finding a cause and providing a solution. Software engineering should be able to suggest logical and well-organized solutions to all problems.

## 我们的咨询服务就是只为您量身定做的.

就像每个人所生活经历都不同似的, 各企业发生的问题和情况都不同. 企业是由多种部门和人员所聚集的地方, 所以问题的根源一向都很复杂. 我们对每一项受委托项目, 都使用全新的接近方法. 虽然存在的问题都类似比较相似, 但突发问题的 情况与结构是总是完全不同. 我们有庞大的咨询服务经验和资料, 因此使用过的解决方法不会再次使用. 我们只为您处理问题, 只为您量身定做找出解决方案



## Our consulting optimizes your needs.

All companies face all different problems. The root of a problem is always complicated since there are many members co-working together. We optimize every case by using a new approach. Though the symptoms might look alike, the circumstances and the structure to problem are always different from one another. That might be the reason why, we never find ourselves utilizing the same solution twice. We detect your problem and optimizes your wants and needs to any problems.

## 我々のコンサルティングは、あなただけのためのものです。

人生が色々見たいに、企業ごとの問題や状況もすべて異なります。企業には、様々なメンバーと部門が集まっていて、問題の根源は、いつも複雑です。我々は、依頼される度に新しいアプローチを使用します。それは 似たような問題でも引き起こした状況と構造は つねに異なっていたからです。我々のコンサルティング経験と 資料は 膨大ですが、一度使ったソリューションを 二度使ったことはありません。我々は、あなただけの為に問題を確認し、あなただけの為に あなた専用ソリューションを作成します。

## We all are ‘Engineers’.

All ThinkforBL's members are engineer and programmer before we are consultant. We underwent hardship as a small/mid-sized software company and still are experiencing some of it. We understand how hard it is based on our similar experiences. We see your problems as ours. We share your worries, go through the hard time together, and finally come out with a solution. We share our knowledge, experience know-how with you.

## 我々は、みんなエンジニアです。

シンクボピエルのメンバーは、SWコンサルタントである前に、全員が技術者であり、開発者であり、エンジニアです。中小SW会社にこれから立ち向かわなければならない 困難が来るとしたら、私達はすでに経験し、また経験している最中だと思っています。同じように痛みを経験した我々ですので、あなたの様々な痛みも 私達の痛みと同様に感じおり、理解しております。私たち自身の問題だと考えて悩んで、一緒に試行錯誤を経て解決策を考えます。我々の知識と経験してきた全てをあなたに 捧げます。

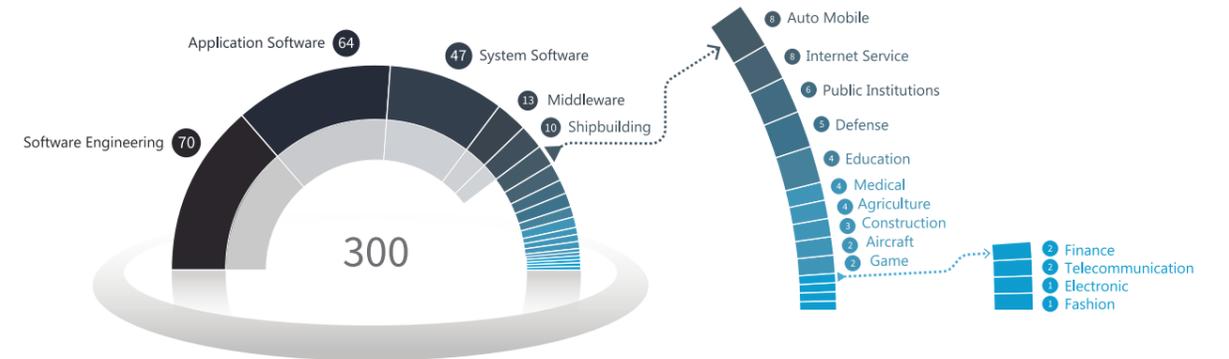
## 我们都是工程师.

ThinkforBL的所有成员都是软件咨询顾问之前, 都是工学士・开发师和工程师. 中小SW公司经历的困难, 我们已经历过, 而且也在经历之中. 因同样经历 过挫折・所有更加理解您的困难・丙更加体会您的处境. 把问题视为自己的问题・一起探讨和经历时间找出解决方式. 我们的知识・我们的经验都 和您一起分享.

Optimized Problem Improvement System



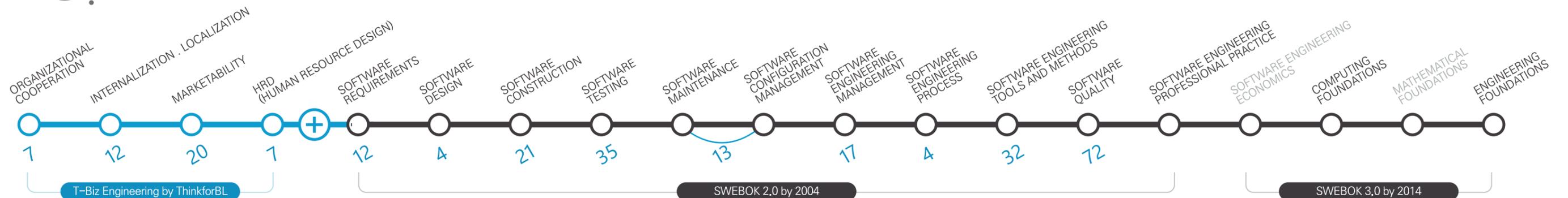
Results by Domain Sector



Results by SW Engineering Sector



Our Coverage Area based on SWEBOK 3.0



# OUR HISTORY



## Award & Recognitions

**2018**  
 \*Excellence Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science, ICT and Future Planning (Agri-bio Software Convergence Technology Innovation Forum)\*

**2017**  
 \*Outstanding Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science, ICT and Future Planning (Agri-bio Software Convergence Technology Innovation Forum)\*

**2016**  
 Female R&D Personnel Employment Company Recognition by Ministry of Trade, Industry and Energy  
 Excellence Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science and ICT

**2015**  
 Outstanding Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science, ICT and Future Planning  
 Excellence Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science and ICT

**2013**  
 Excellence Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Science and ICT

**2012**  
 Outstanding Small to Medium SW Forums for SW Testing Enterprise Forum by Ministry of Knowledge Economy

## Patent

**2019**  
 Acid flow rate based on deep learning-based prediction model, Objective To develop TMR nutrition to achieve acid flow rate, a target rate to achieve nutritional composition prediction methods TMR(PCT/KR2019/005509)

Methods and devices to suggest follow-up work to complement usability (Patent 10-2006084)  
 Method and devices for simulation of follow-up work to ensure usability (Patent 10-2006086)

**2018**  
 Method and device for notification of business performance through job and job log data analysis (10-1926329)

Method and devices to assign the appropriate person to work automatically (Patent 10-1908431)

Test-based quantification measurement methods and devices for safety verification of field software codes (Patent 10-1899778)

Method and device for analyzing cloud sourcing-based app UI usability scenarios (Patent 10-1889704)

Method and Apparatus For Usability test based on brain wave (Patent 10-1869713)

Method and Apparatus For generating test case, computer readable recording medium (Patent 10-1826618)

Method and Apparatus For Analyzing safety of automotive software (Patent 10-1834327)

**2017**  
 Visualization method for tracking analysis of testcase design information, testcase generating apparatus, and computer-readable recording medium (PCT/KR2017/013459)  
 Method and Apparatus For Analyzing Safety Of Automotive Software (PCT/KR2017/006036)

Method and Apparatus For Usability Test Based On Big Data (Patent 10-1811211)

Method and Apparatus For DIY Usability Test (Patent 10-1811212)

Managing system and method for work statue and results based on computer (Patent 10-1785972)

Method and Apparatus For Testing Autonomic Flight Control Of Unmanned Aerial Vehicle (Patent 10-1769281)

Method and Apparatus For Analyzing Safety Of Software (PCT/KR2016/010738)

Method and Apparatus For Software Hazard Analysis (Patent 10-1734418)

Method and Apparatus For Software Analysis (Patent 10-1706098)

Display panel with picture design(30-0905834)

Managing system for work statue based on computer and method for collecting work source data thereof (Patent 10-1704415)

Method and Apparatus For Recording Flight Data Of Unmanned Aerial Vehicle (Patent 10-1703236)

**2016**  
 Method and Apparatus For Analyzing Safety Of Automotive Software (Patent 10-1675986)

Method and Apparatus For Generating Test Case To Support Localization Of Software (Patent 10-1588027)

**2015**  
 Method and Apparatus For Auto Generation Of Test Case (Patent 10-1554424)

**2014**  
 Remote Video Monitoring Method And System Including Privacy Protection (Patent 10-1363601)

**2011**  
 Certificate Issuing Method (Patent 10-1058887)

## Company History

**2019**  
 Jun. Re-certified as Job invention Compensation Company  
 Mar. Hochiminh IT support center branch founded

**2018**  
 Jul. Singapore IT support center branch founded

**2017**  
 Jun. Signed a Women-Friendly Company agreement  
 Certified as INNO-BIZ Enterprise by Small and Medium Business Administration  
 Selected as a representative company on Agri-bio Software Convergence Technology Innovation Forum by National IT Industry Promotion Agency (NIPA)  
 Apr.

**2016**  
 Dec. Certified as Intellectual Property Management Enterprise by Korean Intellectual Property Office  
 Sep. Held Asia Software Quality Network(ASQN) Conference 2016 in Jeju  
 Apr. Selected as Jeollabuk-do IP-STAR Company  
 Selected as Best-Value Service Company  
 Feb. Moved Headquarters to Jeonju-si, Jeollabuk-do

**2015**  
 Dec. Certified as Job Invention Compensation Company  
 Aug. Certified as a full member of Korea Software Engineering Network (K.SEN)

**2014**  
 Apr. Certified as Family-Friendly Company by Ministry of Gender Equality and Family

**2013**  
 Jul. Established R&D Center for Department of SQA

**2012**  
 Dec. Participated in 2012 SW Expo hosted by National IT Industry Promotion Agency (NIPA)  
 Oct. Participated in SW-Biz Partnering Technology Seminar and Conference  
 Hosted Korea-Japan Business Exchange Meeting on SW Testing Forum  
 Participated in 2012 World IT Show hosted by Ministry of Knowledge Economy and Korea Communications Commission  
 May Selected as a business participant on SW Testing Enterprise Forum by Korea SW Industry Association

**2011**  
 May Acquired GS Certification for Yaong Issue Tracking System (ITS) v1.0  
 Mar. Yaong ITS v1.0 launched

**2010**  
 Apr. Selected as a Field Support Partner by Software Engineering Center

**2008**  
 Nov. Certified as Venture Company by Korea Technology Finance Corporation (KIBO)  
 Apr. ThinkforBL Co., Ltd. founded

## Business History

**2019**  
**Telecommunications Technology Association(TTA), Develop SW localization guide for Southeast Asia export**  
**Quality assurance support consulting in AP industry**

**NIPA, Software Quality Management on Local Software Convergence Product Commercialization Support Project**  
 Consulting on S-EMS(Safety-Energy Management System) platform based on OSS(Open Source Software) including ECP(Electrical Contact point) accident foresight function  
 Consulting on cooperation system based on HMD which provides smart diagnosis information of robots by securing industrial MR technology  
 Consulting on high reliability monitoring S/W commercialized product based on AI using IoT sensor array  
 Consulting on Ocean circumstance data multi-module and service platform for minimizing loss of fishery  
 Consulting on smart air traffic control to control the visual angle of realtime remote camera based on GIS  
 Consulting on and commercialize the automobile's black box video collecting system for crime prevention and investigation in CCTV installation backward region.  
 Consulting on integration platform for parcel service based on a close-up on a life sharing economy  
 Consulting on atypical social big-data trend analysis automation system for business intelligence(BI)  
 Consulting on AI drainpipe control system based on IoT  
 Consulting on intelligence water leaking discovery software solution  
 Consulting on manless inventory control system based on automatic driving and manless stored and released system based on 3D inventory location searching  
 Consulting on home energy management platform based on big-data and AI for enhancing consumers' benefit of existing apartments  
 Consulting on smart toy platform for digital education through coding  
 Consulting on smart hearing management system for difficulty in hearing and sound care of regional senior citizen who lives alone  
 Consulting on patient communication augmented reality medical system based on open mobile platform

**NIPA, ICT convergence industry 4.0s Korea shipbuilding & marine R&D project software quality assurance consulting**

**2018**  
**Telecommunications Technology Association (TTA), Develop SW localization guide for Middle East export**

**National IT Industry Promotion Agency (NIPA), ICT convergence industry4.0 Korea shipbuilding & marine R&D project software quality assurance consulting**

**2017**  
**Daejeon Information & Culture Industry Promotion Agency(DICA), Creating an environment Project on Software Convergence R&D Enterprises**

**Korea Institute of Design Promotion(KIDP), Pilot Test on lifestyle value analysis and identification of Smart A / C manufacturing Enterprises**

**National IT Industry Promotion Agency (NIPA), SW new service commercialization strategy consulting**

**Telecommunications Technology Association (TTA), Develop SW localization guide for export**

**NIPA, ICT convergence industry4.0 Korea shipbuilding & marine R&D project software quality assurance consulting**

**2016**  
**Core technology development of Light armed helicopter (LAH) configuration management system (In aerospace industry)**  
**NIPA, Software quality assurance and test support consulting on SW asset redevelopment project**  
 Digital signage advertisement management system project  
 Augmented reality development VR creation solution project  
 Home security portable mirror including project  
 Mobile builder targeted advertising system project  
 Zone-based IoT solution development of O2O matching system using Z-one project  
 Vehicle shipment monitoring system project  
 Automatic extraction technique for the efficiency of keyword based advertisement project  
 Intelligent online asset management system development project  
 High integration cluster server based cloud service project  
 OneM2M standard based improving smart factory monitoring system development project  
 Linux web hosting automation solution of task process improvement project  
 lossless Hi-Res audio player with on-screen list subtitle function development project

**NIPA, Software quality assurance and testing on open source software development support project**  
 SW test integration platform upgrade project  
 Unmanned aircraft flight control project  
 Container based open source code distribution framework project

**Gwangju Information and Culture Industry Promotion Agency (GITCT), Education on software code quality assurance at implementation stage**

**Busan Information and Culture Industry Promotion Agency (BIPA), Education on open software tool based quality assurance technology**

**SW quality improvement consulting based on SW visualization for export consulting (In application SW industry)**

**Korea Aerospace Research Institute (KARI), DO-178C requirements tracking system consulting using redmine**

**NIPA, GCS School - Verifying and improving code quality using open SW verification tool**

**2015**  
**NIPA, Software quality assurance and test support consulting on SW asset redevelopment**  
 Electronic pen project  
 Personal image information protection project  
 DNA-MPRII project  
 ZigBee information display project  
 C2C on demand platform project  
 Easy pay project  
 Electronic slip system UI framework change project  
 USN based ICT convergence integrated platform technology for indoor control project  
 Smart facility intelligent control platform development project  
 Security gateway software applying 3G / LTE based M2M VPN project  
 Order / sales / inventory management system project for liquor retailers  
 E-Commerce solution application development project for agricultural, livestock, and marine products

**Jeonju Information and Culture Industry Promotion Agency (JICA), Software quality assurance consulting**  
 Finger vein authorizing system issue management system consulting  
 U-Class v2.0 code quality improvement consulting  
 Buan mental health promotion center code quality improvement consulting  
 Electric roller blind control system code quality improvement system consulting  
 Interface design improvement consulting of shed environment control gateway platform

**NIPA, Software quality assurance consulting on SW Asset Bank registration R&D Project**  
 User manual improvement consulting on disaster security communication project  
 Advanced consulting of test design technique on cyber black box project  
 SW visualization consulting on script responding project  
 User requirement elicitation improvement consulting on automobile security communication project  
 Open SW-based SW maintenance system consulting on script responding project  
 Quality assurance consulting on cyber black box project  
 Quality assurance consulting on script responding project  
 Quality assurance consulting on automobile security communication project  
 Quality assurance consulting on disaster security communication project

**TTA, Defense acquisition program administration defense acquisition program technical education**

**SW quality assurance mentoring (In application SW industry)**

**2014**  
**NIPA, Software quality auditing and consulting on 1st specialist fosterage project**  
 Collaboration platform project quality audit  
 Peta search engine project quality audit  
 Test coverage improvement consulting on collaboration platform project  
 Project management system improvement consulting on collaboration platform project

**NIPA, Software quality assurance and product quality audit on open source software development project**  
 Software quality assurance and product audit on open OS linguistic localization project  
 Software quality assurance and product audit on test management system project  
 Software quality assurance and product audit on big data project  
 Code quality improvement consulting on open OS linguistic localization project  
 Performance test consulting on test management system project  
 CI implementation consulting on test management system project

**NIPA, GCS High-Tech project quality audit and consulting**  
 Software quality auditing on micro enterprise big data project  
 Software quality auditing on digital life project  
 Software quality auditing on mobile second project  
 Software quality auditing on safety first platform project  
 Software quality auditing on convergence and complex analysis project  
 Software quality auditing on self IoT project  
 Software quality auditing on healing platform project  
 Consulting of SW R&D distribution / integration system on micro enterprise big data project  
 Consulting of SW R&D distribution / integration system on digital life project  
 Consulting of SW R&D distribution / integration system on mobile second project  
 Consulting of SW R&D distribution / integration system on complex combined analysis project  
 Consulting of SW R&D distribution / integration system on self IoT project

WBS consulting for risk management and effective progress on reliable SW development  
 Consulting on the usability of micro enterprise advertisement/marketing service  
 Consulting on risk management development for the changes of the demand/technology trend of collecting technology which stores personal digital asset  
 Consulting on service insight of smart car driving which leads mobile second  
 Consulting on the system of integration dependency analysis for periodical integration of multi-tenant convergence/complex analysis platform  
 Consulting on system of periodical integration based self IoT platform  
 Consulting on the customized service requirement for metabolic syndrome patients  
 Consulting on customized service user test for metabolic syndrome patients

**NIPA, GCS School - Code quality assurance and improvement on C and C++ using open SW verification tool**

**NIPA, GCS School - Code quality assurance and improvement on Java using open SW verification tool**

**Quality policy consulting (In RIA industry)**

**NIPA, Expert mentoring project on quality competence of SW R&D project**  
 Functional and structural coverage understanding and task application mentoring  
 Test strategy based test improvement mentoring  
 Requirement system improvement mentoring on SW R&D project execution  
 Maintenance system development mentoring on mobile project  
 Continuous integration system improvement mentoring on exo-brain project  
 Continuous integration system improvement mentoring of SW development productivity improvement  
 SW maintenance system improvement mentoring on exo-brain project  
 Requirement system improvement mentoring on SW R&D project execution  
 Usability test and mini workshop on quality improvement  
 Test design method understanding and application mentoring  
 Test confidence improvement mentoring on exo-brain project  
 Test design method mentoring on coverage improvement on exo-brain project  
 Requirement system improvement consulting on peta project  
 CI system consulting implementation consulting on integration platform project  
 Test process system improvement consulting on VDI project

**2013**  
**NIPA, WBS 3rd project Beta test**  
 Beta test on DRM project  
 Beta test on text recognition project

**Jeollanam-do Information and Communication Promotion Agency (JCIA), Open software test and integrated Platform (CTIP) Training**

**NIPA, WBS 3rd project specialist development project on SW quality assurance (2nd year)**  
 Quality assurance on BIM project  
 DRM test recognition image synthesis plant project

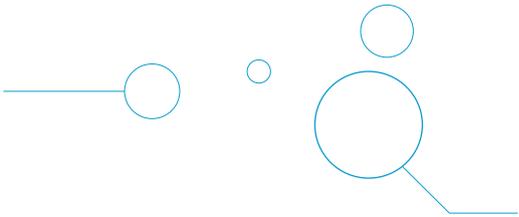
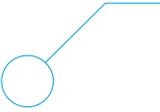
**Consulting on development of quality management system (In RIA industry)**  
 User requirements research for TOPS system improvement  
 System guidance of quality management committee  
 Requirements management system consulting

**NIPA, Software quality management training and consulting on 2nd WBS project on 2nd year**  
 Mentoring on test design methodology guide  
 Test design technique improvement mentoring on K2 tram platform  
 Internalization design methodology guide mentoring  
 Mentoring on peer review system improvement of infotainment project  
 Mentoring on maintenance system improvement  
 Mentoring on requirement deduction system improvement  
 Software design competency improvement mentoring on set top box project  
 Code inspection and AS-IS improvement mentoring on set top box project  
 Hosted a quality metric technique seminar on SW code quality improvement  
 Issue management system improvement mentoring on infotainment project  
 Test process improvement consulting on infotainment project  
 Configuration management and integration management improvement consulting on set top box project  
 Gray-box testing tool based coverage improvement consulting on K2 tram platform project  
 Design output improvement mentoring on infotainment project

**2012**  
**NIPA, Software quality management and auditing on WBS 3rd project 1st year**  
 Quality auditing on BIM project  
 Quality auditing DRM project  
 Quality auditing on text recognition project  
 Quality auditing on image synthesis project  
 Quality auditing on plant project

**Software Development Systemization Consulting (In RIA industry)**

**JICA, Local business SW development process consulting support**  
 Consulting on SW source management system  
 Consulting on CI system



## SERVICE

### Software Engineering Consulting and Mentoring Service

(Consulting services for SW R&D SMEs performed more than 200 times)

#### In needs of

- All software development lifecycle (planning / development / maintenance)
- Setting the corporate culture during software development process
- Improving the organizational culture of small sized team's development culture
- Optimizing Software development process
- Boosting up the morale of developers in repeated trials and errors

#### We provide

- Software Quality Management Process and Assessment
- Software Development Process Automation Tools and Application Guide
- Practical Software Engineering Training and intensive Training Course
- User Response Research-based Market Verification
- Project Management / Requirement Engineering / Architecture and Design  
/ Peer Review / Code Inspection / Software Test / Globalization / Configuration Management  
/ Process Automation

## PRODUCT

The Human lives in a safety software by **Thinktools**



We leads The Healthy Livestock in **ThinkFarm**



## CONTACT

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