



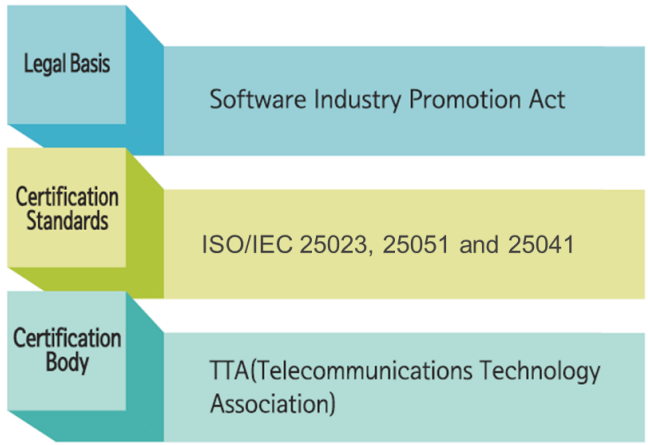
GS Certification

GS (Good Software) certification guarantees the high quality of software product, which is tested and evaluated based on ISO/IEC standards



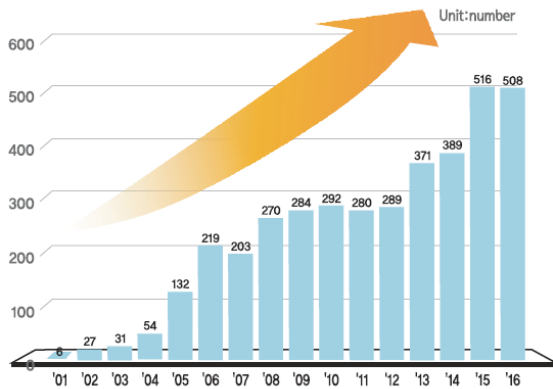
Overview

- ▶ GS(Good Software) Certification is the quality certification for software products, which started in 2001 to improve software quality and promote a software industry.
 - Test and evaluate software quality based on international standards.



Status

More than 500 software products are certified every year
(Total: 3,871 as of Dec 31, 2016)



▲ Number of GS Certification Acquisition('01~'16)

Major companies acquiring GS certification



Customers in a public and private sector in South Korea prefer GS certified software products



▲ Public Sector



▲ Private Sector



Testing and Certifying based on International Standards

- ▶ Based on the international standards – ISO/IEC 25023, 25051 and 25041, TTA perform testing and provide certification.

Characteristics of SW Quality

Functional suitability, Performance efficiency, Compatibility, Usability, Reliability, Security, Maintainability, Portability, General Requirements

ISO/IEC 25023

Measurement of system and software product quality

ISO/IEC 25051

Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing

ISO/IEC 25041

Evaluation guide for developers, acquirers and independent evaluators

Evaluation Model

SW Quality

Functional suitability	Performance efficiency	Compatibility	Usability	Reliability	Security	Maintainability	Portability	General Requirements
Functional completeness	Time behaviour	Co-existence	Appropriateness recognizability	Maturity	Confidentiality	Analysability	Adaptability	Requirements for Product description
Functional correctness	Resource utilization	Interoperability	Learnability	Availability	Integrity	Modifiability	Installability	Requirements for documentation
Functional appropriateness	Capacity		Operability	Fault tolerance	Non-repudiation	Testability	Replaceability	Statement on quality characteristics
			User error protection	Recoverability	Accountability			
			User interface aesthetics		Authenticity			
			Accessibility					

 Quality characteristic

 Quality sub-characteristic



The International Benchmark Case of SW Quality Certification

- ▶ Japan and Malaysia benchmarked GS certification for their certification system.
 - Japan: PSQ(Package SW Qualification)
 - Malaysia: QS(Quality Software Product Certification Scheme)

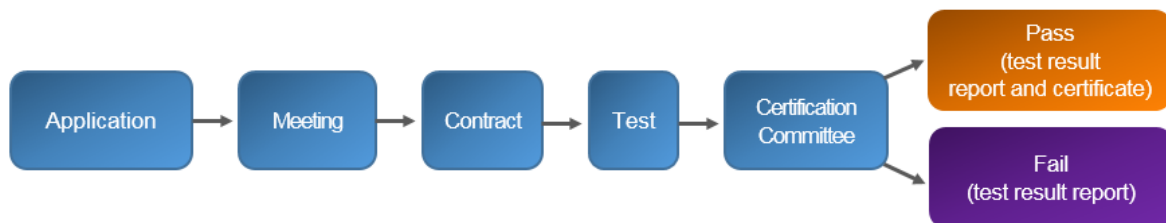


ISO/IEC 25051:2014





Service Procedure



▶ 1. Application

Download the application form and send an email(gs@tta.or.kr)

▶ 2. Meeting (online meeting is also possible)

- (TTA) Explain testing and process
- (Applicant) Explain software to be tested
- (TTA and Applicant) Discuss test scope and test environment

▶ 3. Contract

- (TTA) Send e-mail for the commission fee
- (Applicant) wire the fee to TTA account
- (TTA) Send a contract document by email
- (Applicant) Send it back with a formal sign by email

▶ 4. Test

Perform the test as follows

- Set up the test environment
- Analyze and design the test
- Test the software
- Report defect to applicant (applicant can fix defect during a testing period)
- Perform regression testing
- Write a test result report

▶ 5. Certification Committee

Hold Certification Committee to determine whether the software can be certified or not

▶ 6. Provide Test Result Report and Certificate

Issue the test result report and GS Certificate



About TTA

- ▶ TTA (Telecommunications Technology Association) is a statutory organization to support establishment and dissemination of ICT standards as well as to provide testing & certification service for related ICT technologies



- Publish the TTA standards in ICT areas
- Support international standardization activities for ITU, ISO, IEC, etc
- Cooperate with global standardization organizations such as GSC, CJK, etc
- ICT Standards Strategic Map (Rolling Plan)
- 15,446 TTA Standards (Dec. 2016)
- Provide consulting services to SMEs and developing countries

- Test and certify ICT products and services
- Acquire global official testing center qualification
 - R&D on testing and ICT technologies
- International testing laboratory accredited by KOLAS
 - * KOLAS: Korea Laboratory Accreditation Scheme
 - More than 300 professional engineers
 - More than 1,000 testing equipment



Main Services in Testing and Certification

Software

GS Certification, BMT(BenchMark Test), CC(Common Criteria) Evaluation, Quality Inspection for Aviation Safety Facility, ISMS(Information Security Management System) Certification, SW Glocalization Testing and Consulting, HPC(High Performance Computing) Verification and Consulting, System Safety Consulting, etc



ICT

Bluetooth, USB, SATA-IO, Wi-Fi, IPv6 Ready, NFC, GSM/WCDMA/LTE, CTIA, oneM2M, AirFuel Alliance, UHD Alliance, Wireless Power Consortium, etc

