



16<sup>th</sup> International Conference  
on Software QA & Testing  
on Embedded Systems  
CONFERENCE EDITION

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25 · 26 · 27 October  
Bilbao / Spain  
[www.qatest.org](http://www.qatest.org) **2017**



# QA&TEST

## Conferencia en Calidad de Software y Testing en Sistemas Embebidos

SQS S.A. le invita a visitar QA&TEST, la 16ª edición de la Conferencia Internacional sobre Calidad de Software y Testing en Sistemas Embebidos más importante de España. Es muy difícil de imaginar la sociedad actual sin Software en Sistemas Embebidos. Conozca a los expertos que hacen posible que estas aplicaciones funcionen de verdad y aprenda de sus experiencias.

Esta Conferencia ha evolucionado hacia una de las más exitosas plataformas para el intercambio de experiencias en el ámbito del Testing y la Calidad de Software, al reunir profesionales y expertos de diferentes empresas como Intel, ProRail, Valori, T-Access, Verifysoft y muchas más.

El principal objetivo de QA&TEST es presentar los últimos desarrollos tecnológicos en Testing y Calidad de Software. Durante los 3 días de la Conferencia, los profesionales más influyentes presentarán las mejores prácticas y le enseñarán cómo reducir costes, mejorar su calidad y aumentar su competitividad a nivel mundial.

## Conference on QA & Testing on Embedded Systems

SQS S.A. invites you to visit QA&TEST 2017, the 16th edition of the most important International Conference on QA & Testing on Embedded Systems in Spain. A society in 2017 without Software in Embedded Systems is hard to believe. Meet the experts who make those applications really work and learn from their experiences.

This Conference has evolved into one of the most successful and active platforms for the exchange of experiences in the field of software testing and quality assurance, bringing together professionals and experts from different companies such as: Intel, ProRail, Valori, T-Access, Verifysoft and many more.

The main objective of QA&TEST is to present the latest technological development in Software Testing and Quality Assurance. During the 3 days conference the most influential professionals will present successful best practices and teach you how to reduce your costs, improve your quality and give your company a lead in global competition.

# Keynotes



**Bob Harnisch**  
Prorail (The Netherlands)

Bob Harnisch tiene experiencia en el mundo de la informática desde 1981. Ha ejercido como director de departamento, de pruebas, de proyectos, de calidad, así como arquitecto de software y programador, en múltiples y diferentes áreas, tanto del sector público como privado: aeroespacial, aeronáutica, defensa, logística y procesos industriales de control. Trabaja en ProRail (la empresa estatal holandesa de ferrocarril e infraestructuras) desde 2004.

Bob Harnisch has IT experience since 1981 as a department manager, test manager, project manager, quality manager, software architect and programmer in many different areas of industry and government like Aerospace, Airline, Defense, Process Control Industry and Logistics. He is working at ProRail (Dutch Railway company for rail infrastructure) since 2004.



**Jan Tretmans**  
Radboud University and TNO  
(The Netherlands)

Jan Tretmans es Profesor Asociado en el grupo de Ciencias del Software en la Universidad de Radboud e investigador senior en TNO – Embedded Systems Innovation, Eindhoven. Jan trabaja en las áreas de testeo de software, así como en el uso de métodos formales, modelos y técnicas de verificación de ingeniería de software. En concreto, le gusta combinar ambos temas: testing utilizando métodos formales, también conocido como testing basado en modelos.

Jan Tretmans is Associate Professor in the Software Science group, Radboud University, Nijmegen, and Senior Research Fellow at TNO – Embedded Systems Innovation, Eindhoven.

Jan is working in the areas of software testing, and the use of formal methods, models, and verification techniques in software engineering. In particular, he likes to combine these two topics: testing using formal methods, also known as model-based testing.



**Nancy Van Schoenderwoert**  
Lean-Agile Partners Inc. (USA)

Nancy se encuentra entre los precursores del uso de métodos ágiles en el desarrollo de sistemas embebidos, como ingeniera, manager y consultora. La experiencia de Nancy abarca desde desarrollo de hardware y software embebido para la industria aeroespacial, automatización de fábricas, sistemas de defensa y servicios financieros. Es una conferenciante habitual en conferencias relacionadas con Agile en todo el mundo.

Nancy is among the first to apply Agile methods to embedded systems development, as an engineer, manager, and consultant. Nancy's experience spans embedded software and hardware development for aerospace, factory automation, medical devices, defense systems, and financial services. Her coaching practice spans delivery teams to middle and upper managers. She is a regular presenter at Agile-related conferences worldwide.

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Información útil / Useful information

La cena de la Conferencia se celebrará el jueves 26 en la Sociedad Bilbaína a las 20:30

The Conference dinner will be held on Thursday 26 at the Sociedad Bilbaína and will start at 8.30 PM

Dirección / Location

C/ Navarra 1  
48001 Bilbao  
Tel.: 944 231 407



# Tutoriales Tutorials

**Olivier Casse**  
Verifysoft Technology GmbH  
(Germany)



Olivier Casse has strong expertise for providing solutions, tools and services, all along the V cycle in embedded systems and software development. Before joining the Verifysoft team in 2014, he previously worked for Wind River, Atego, I-Logix as Sales Specialist, Business development Manager and Senior FAE. His key role is to promote solutions for building embedded systems and SW to address new markets or products range for innovative technologies.

Olivier Casse tiene una gran experiencia proporcionando soluciones, herramientas y servicios en lo relativo al Modelo V en sistemas embebidos y en desarrollo de software. Antes de unirse al equipo de VerifySoft en 2014 habría trabajado para Wind River, Atego, I-Logix como Especialista en Ventas, Director de Desarrollo de Negocio e Ingeniero de Aplicaciones. Su principal responsabilidad es promover soluciones para tecnologías innovadoras.



**Thomas Fehlmann**  
Euro Project Office AG (Switzerland)

Thomas Fehlmann es experto en métricas de software y estimación de coste de proyecto, cuenta con la certificación Lean Six Sigma Black Belt en desarrollo ágil de software y es promotor del diseño y testeo de software orientado al cliente. Dirige la oficina Euro Project desde 1999, cuenta con el reconocimiento internacional como Quality Function Deployment (QFD) desde 2001 y ejerce como experto en métricas de software de SwissICT desde 2003. Desde 2004 es el delegado suizo en el International Software Benchmarking Standard Group (ISBSG), del que es vicepresidente desde 2012.

Thomas Fehlmann is a senior expert in software metrics and project cost estimation, a Lean Six Sigma Black Belt for agile software development and promoter of customer-oriented software product design and testing. He runs the Euro Project Office since 1999, is internationally recognized as Quality Function Deployment (QFD) expert since 2001, and serves as software metrics expert of SwissICT since 2003. Since 2004, he is Swiss delegate in the International Software Benchmarking Standard Group (ISBSG), and vice-president since 2012.

## Lectura Especial Special Lecture

**Virginia Challegre**  
t-access (Brazil)



Virginia is CEO and co-founder of t-access. She has worked as test engineer, planning, projecting and executing tests in NTE-Spain. During four year, she has worked at CESAR as team leader in test design in Dell project, provided training on testing processes and was a member of the independent testing group from the company, which provided support in the testing discipline for the organization.

Virginia es Presidenta y co-fundadora de t-access. Ha trabajado como ingeniera de pruebas, planificando, proyectando y ejecutando pruebas en NTE-Spain. Durante cuatro años ha trabajado en CESAR como directora de equipo de diseño de pruebas en el proyecto Dell, proporcionando formación en procesos de pruebas, y fue miembro del grupo independiente de testing, que proporcionaba apoyo en esta área.



### Organizador

SQS, Software Quality Systems, organiza QA&TEST desde su primera edición (2002).

SQS es el proveedor líder de consultoría de calidad de software y servicios de testing. En los últimos años, han sido testigos de cómo sus clientes mejoraban la calidad de sus desarrollos de software al tiempo que reducían radicalmente los costes de corrección de errores y mantenimiento.

SQS estaba buscando una forma de compartir su experiencia formativa, y en 2002, encontraron la manera perfecta de transmitir sus conocimientos: QA&TEST, la Conferencia Internacional en Testing y Calidad de Software.

Desde la primera edición, SQS disfruta de la posibilidad de compartir su pasión con la comunidad internacional de testing.

### Organizer

SQS, Software Quality Systems organizes QA&TEST since the very beginning (2002).

SQS is the leading provider of software quality consultancy and testing services. Over recent years, they have witnessed how their customers improved the quality of their software developments while dramatically reducing the costs of correcting bugs and maintenance.

SQS was looking for a way to share their training expertise. In 2002 they were delighted to find a way to contribute their knowledge to you; QA&TEST, the International Conference on Software QA and Testing.

Since the first edition SQS is happy to share their passion with the international testing community.

**inn**ovalia  
ASSOCIATION

### Patrocinador

La visión de la Asociación Innovalia es lograr que la tecnología y la innovación jueguen un papel decisivo en el desarrollo empresarial. Nos esforzamos por colaborar activamente con nuestros clientes para descubrir las motivaciones y dilemas que deben abordarse en el futuro, investigamos acerca de las últimas tecnologías y proporcionamos soluciones para potenciar el desarrollo empresarial sostenible.

"Configurando la tecnología para el mundo del mañana "

### Sponsor

Innovalia Association vision is to achieve that technology and innovation become instrumental in business development. We strive to proactively collaborate with our clients to discover the motivations and dilemmas that need to be addressed in the future, research on cutting edge technologies and deliver solutions empowering sustainable business development.

"Shaping technology for tomorrow's world."



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QA&TEST  
programme

08:45 · 09:15 Registration + Coffee

## B1 Room

## Tutorial 1

Code Coverage on  $\mu$ -Controller  
**OLIVIER CASSE**  
Verifysoft Technology GmbH (Germany)

## A1 Room

## Tutorial 2

Autonomous Real-Time Software &  
Systems Testing: A Six Sigma Approach  
**THOMAS FEHLMANN**  
Euro Project Office AG (Switzerland)

10:30 · 11:15 Coffee Break + ToolLab

## 11:15 · 13:15 Tutorial 1 · CONTINUATION

Code Coverage on  $\mu$ -Controller  
**OLIVIER CASSE**  
Verifysoft Technology GmbH (Germany)

## Tutorial 2 · CONTINUATION

Autonomous Real-Time Software &  
Systems Testing: A Six Sigma Approach  
**THOMAS FEHLMANN**  
Euro Project Office AG (Switzerland)

\* Simultaneous translation not available in both tutorials

13:15 · 14:45 Lunch

## A2 Room

## Opening

14:45 · 15:00

15:00 · 16:00 Keynote 1

How to keep 1.2 million customers happy each day  
**BOB HARNISCH** / ProRail (Netherlands)

## A2 Room

## TRACK 1

## AGILE AND SAFETY

16:00 · 17:30

16:00 · 16:45 Agile for Safety-critical &  
Regulatory-Bound Products (Agile  
where you can kill someone)  
**BRIAN SHOEMAKER**  
ShoeBar Associates (USA)16:45 · 17:30 We Have A DevOps Guy, Now What?  
How The DevOps Principles Can Help  
Your Testing Team Infrastructure  
**ALEX CASINO**  
Roche Diagnostics (Switzerland)

## A3 Room

## TRACK 2

## VERIFICATION &amp; VALIDATION STRATEGIES

Formal Software Verification for Testers  
**JAN TOBIAS MUEHLBERG**  
imec-DistriNet, KU Leuven (Belgium)AI in Testing- From Quality Assurance to  
Business Assurance  
**AVIRAM SHOTTEN**  
Qualitestgroup (United Kingdom)

## A2 Room

## Special Lecture

17:30 · 18:15

Accessibility Testing Methodology in early stages of software development life cycle  
**VIRGINIA CHALLENGRE** / t-access (Brazil)

08:30 · 09:00 Registration

## A2 Room

## Keynote 2

09:00 · 10:00

Model-Based Testing: The Next Step in Test Automation for Embedded Systems  
**JAN TRETMANS** / TNO Embedded Systems Innovation and Radboud University  
Nijmegen (The Netherlands)

## A2 Room

## TRACK 3

## QA MANAGEMENT

10:00 · 13:45

10:00 · 10:45 Grip on your Test maturity using  
the Ambition chart  
**DERK-JAN DE GROOD**  
Valori (The Netherlands)

## A3 Room

## TRACK 4

## TEST AUTOMATION

System architecture testing  
**XABIER ARBULU**  
Ficosa (Spain)

10:45 · 11:30 Coffee Break + ToolLab

11:30 · 12:15 Building holistic QA group prepared for  
mobile era  
**NIV SEGEV**  
ironSource (Israel)12:15 · 13:00 DMA - Dynamic machine allocation I  
Sharing embedded system DUTs  
**AVI BABANI**  
Intel (Israel)13:00 · 13:45 User Experience as Indicator for  
Assessing Performance Risks  
**VIVIANE LYRIO DA SILVA**  
CESAR (Brazil)Developing a Test Automation Strategy  
**AMAIA IMATZ**  
SQS (Spain)Developing a System for Performance  
Testing of Intel® Computer Vision SDK  
on Computer Vision and Deep  
Learning Workloads from Scratch  
**MIKHAIL TRESKIN** / Intel (Russia)

13:45 · 15:15 Lunch

15:15 · 16:45 TRACK 5

## PEOPLE IN TESTING AND DEVELOPMENT

15:15 · 16:00 Communication Skills for Testers & why  
you have been doing it wrong all along  
**JOEL MONTVELISKY**  
PractiTest (Israel)16:00 · 16:45 Power Skills for Testers:  
Communication, Collaboration,  
and Innovation  
**GERIE OWEN**  
Eversource Energy (USA)

## TRACK 6

TEST ENVIRONMENT I  
INFRASTRUCTURES MANAGEMENTManaging Embedded Systems test  
infrastructures with Docker and Jenkins  
**OLEG NENASHEV**  
CloudBees, Inc. (Switzerland)The diversity of testing world  
**DAWID PACIA**  
Silvair (Poland)

16:45 · 18:00 Round Table

09:00 · 09:30 Registration

## A2 Room

## Keynote 3

09:30 · 10:30

Hardware-Software Collaboration in Agile Organizations  
**NANCY VAN SCHOENDERWOERT** / Lean-Agile Partners Inc. (USA)

10:30 · 11:15 Coffee Break + ToolLab

## A2 Room

## TRACK 7

## IOT AND SECURITY TESTING

11:15 · 13:30

11:15 · 12:00 Real example of open source software  
used for QA testing  
**PABLO NEBRERA**  
ENEO (Spain)12:00 · 12:45 Lock your car-A Security Testing Breach  
**BOOPATHI GUGANATHAN**  
Volvo AB/ Alten AB (Sweden)12:45 · 13:30 Testing a Moving Target: How Do We  
Test Machine Learning and Adaptive  
Systems?  
**PETER VARHOL**  
Dynatrace (USA)

## A3 Room

## TRACK 8

## TESTING TECHNIQUES

Firmware Image Static Analysis  
**DAMIAN MUNAFO**  
Intel (Israel)Learning Based Smart Testing  
Technique  
**GURURAJA HEGDAL**  
VMware (India)Learnings and Challenges of Power  
Management testing.  
**ARIEL CYMBERKNOH**  
Intel (Israel)

## A2 Room

## Official Closing

13:30 · 13:45

13:45 · 15:00 Lunch