



NIDays

WORLDWIDE GRAPHICAL SYSTEM DESIGN
CONFERENCE

Aku Wilenius

Area Sales Manager, NI

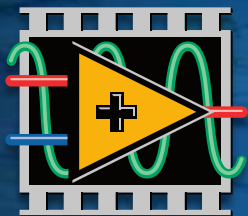
Luke Schreier

Senior Group Manager, NI

Samuli Bergström

Marketing Engineer

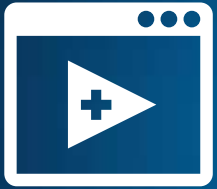
Certified LabVIEW Architect, NI



NATIONAL INSTRUMENTS

LabVIEW™ 2013

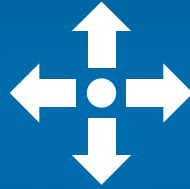
LabVIEW 2013 – New Features



Code
Management



Software
Engineering



Deployment
Experience



Mobile
and Web



Overhauled
Resources



LabVIEW 2013 – New Features



Idea Exchange Features

- ✓ Bookmarks
- ✓ Attached Comments
- ✓ Mouse Wheel Support for Controls & Indicators
- ✓ High Priority User Events
- ✓ Installers Automatically Include Necessary Drivers & Runtimes
- ✓ Open Accessor VI for LVOOP
- ✓ Desktop Execution Trace Toolkit Updates (many)
- ✓ Unit Test Framework Updates (many)

LabVIEW 2013 – New Features

New Features Demonstrations





175+ Products

LabVIEW
TOOLS NETWORK

LEAP

M O T I O N



NATIONAL INSTRUMENTS

LabVIEW™

2013



LabVIEW Add-Ons of the Year

INNOVATION

Deploy



DATA ACQUISITION

Chameleon



EMBEDDED CONTROL AND MONITORING

Raima Database
for LabVIEW



AUTOMATED TEST

Tool Qualification Kit

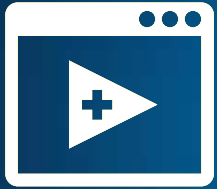


COMMUNITY

TortoiseSVN Plugin



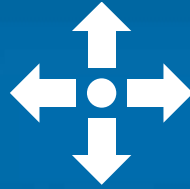
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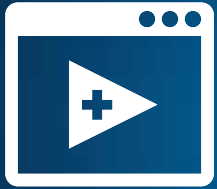


Mobile
and Web

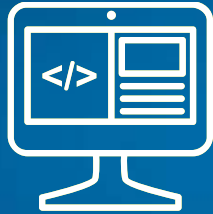


Overhauled
Resources

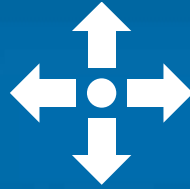
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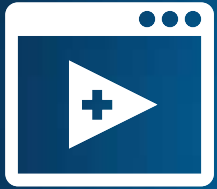


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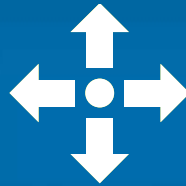
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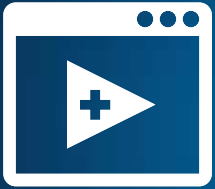


INNOVATION

Deploy



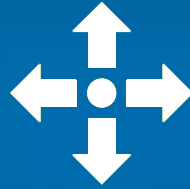
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Data Dashboard for LabVIEW 2.2



Data Dashboard for LabVIEW 2.2

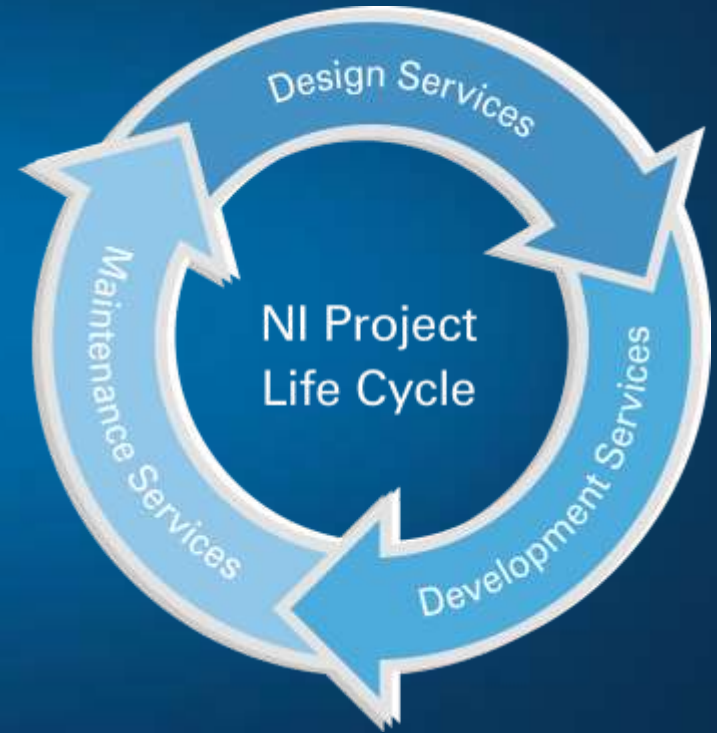


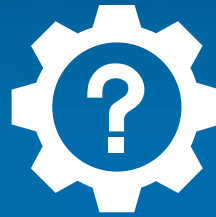
Joeri Wingelinckx

Services Manager, NI

Services and Support Throughout Life Cycle

- Newsworthy thing about Services
- Newsworthy thing about Services
- Newsworthy thing about Services





Overhauled
Resources

- LabVIEW Core 1
- LabVIEW Core 2
- LabVIEW Core 3
- Advanced Architectures in LabVIEW
- Object Oriented Design and Programming in LabVIEW
- LabVIEW FPGA
- LabVIEW Real-Time 1 & 2

LabVIEW Proficiency

Certified LabVIEW Developers in Finland

Juho Aho, Etteplan Design Center Oy
Kalle Ahola, Protacon iSys Oy
Kalle Ahoniemi, OptoFidelity Oy
Heikki Alatalo, DSP-Systems OY
Marko Brilli, ABB Oy
Martti Haro, Testcom Oy
Mikael Hirn, Voyantic Oy
Jarmo Hytönen, Protacon iSys Oy
Kai-Erik Kajander, Espotel Oy
Juho Kallioliinna, Protacon iSys Oy
Pasi Karppinen, Protorhino Ltd

Antti Katajala, Testcom Oy
Juha Löytöläinen, Espotel Oy
Markus Nenonen, Nokia Oyj
Mikko Pesonen, Protacon iSys Oy
Arto Piironen, Protacon iSys Oy
Alexandre Pirojenko, Digimetrix OY
Teemu Pöyhönen, Optofidelity Oy
Kari Puronvarsi, OptoFidelity Oy
Jouni Reinikainen, Espotel Oy
Mikko Rossi, Jyväskylän Yliopisto
Erkki Toropainen, Protacon iSys Oy
Mikko Vaarala, OptoFidelity Oy

LabVIEW Proficiency

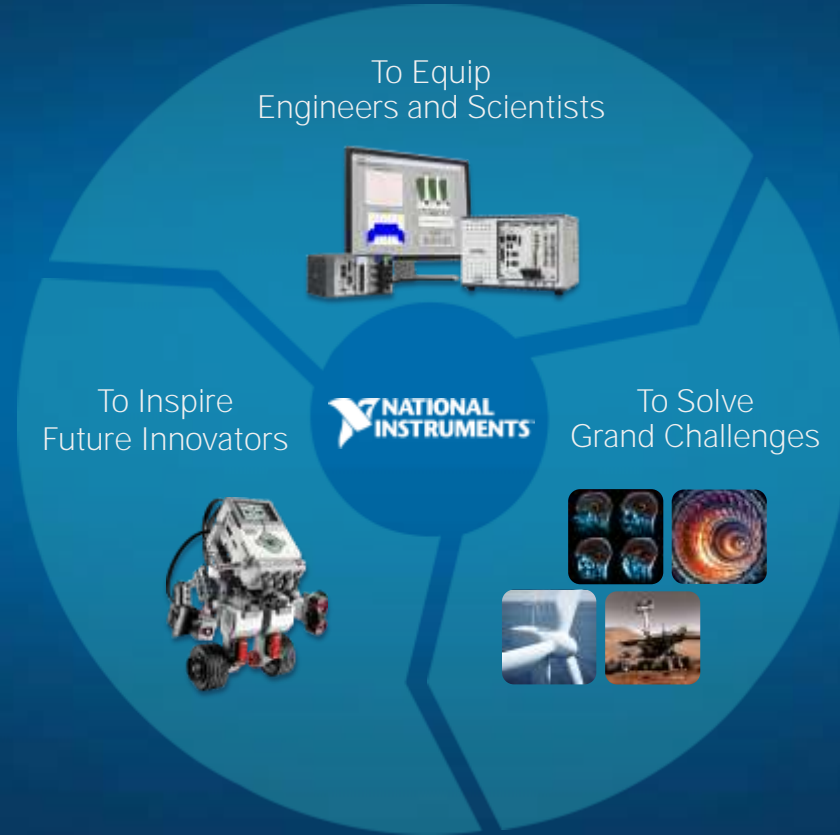
Certified LabVIEW Architects in Finland

Samuli Bergström, National Instruments
Teodor Blaga, Etteplan Oyj

CLA Summit 2014 @CERN



Create Shared Value for Sustainable Success



“Engineers explain what it takes to
get a job at Elon Musk’s SpaceX:
for Launch Engineering ... awesome LabVIEW +
great algorithm and data structure knowledge.”

–Business Insider

Proficient in G programming!

...minimum certification of CLD required...

...LabVIEW developers needed.

LabVIEW FPGA programming experience...

...test engineer with LabVIEW experience.

...must know LabVIEW!

Shekhar Sharad

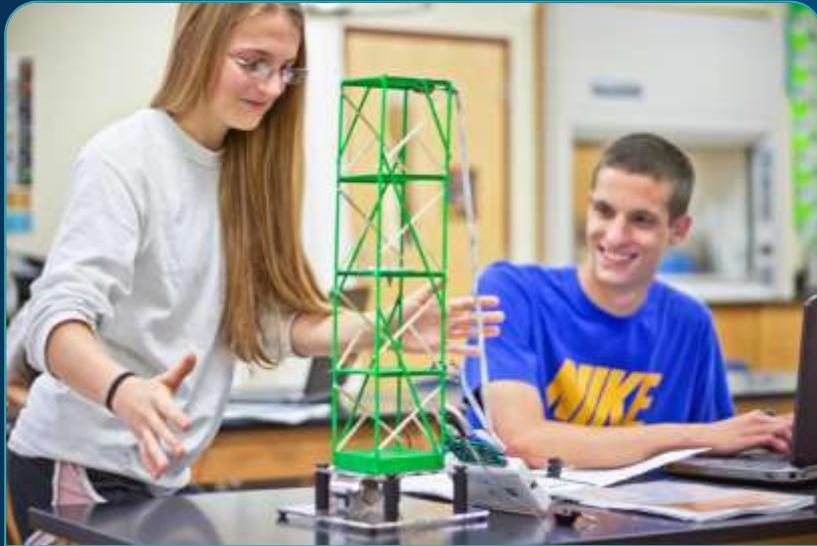
Product Marketing Group Manager, NI

Alexander Floor

Academic Field Sales Engineer, NI

LEGO MINDSTORMS





Students learn about the effects of earthquakes



Researchers measure the effects of earthquakes

The Tools to “Do Engineering”



2004

NI ELVIS:
Lab Instrumentation



2010

NI myDAQ:
Student
Instrumentation



2011

NI USRP™:
RF/SDR

Design Real Systems, Fast



Student
Design



Embedded
Systems



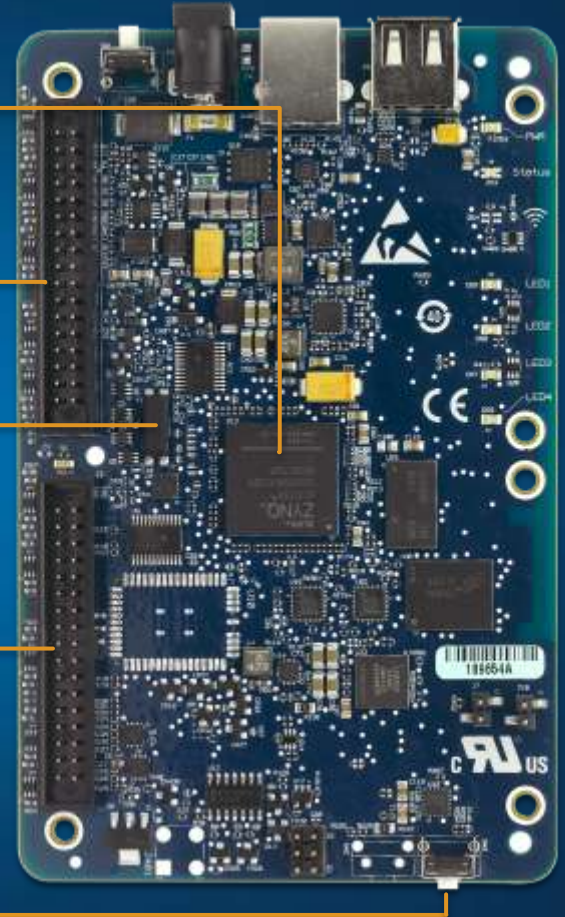
Control, Robotics, and
Mechatronics

Xilinx Zynq SoC (Artix-7 FPGA
and dual-core ARM Cortex-A9)

Onboard 3-axis
accelerometer

Two 34-pin headers

User-defined button





Integrated WiFi

40 lines of digital I/O
(SPI, I²C, UART,
PWM, encoder)

Stereo audio I/O







Student
Design

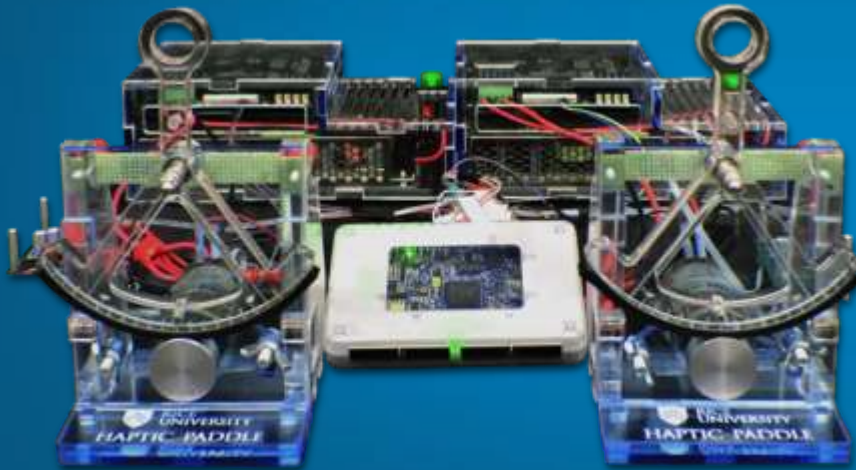


Embedded
Systems



Control, Robotics, and
Mechatronics

Teleoperated Haptic Paddles



Rice



Control, Robotics, and
Mechatronics

KUKA youBot Robotics Platform



Graphical System Design



Measurement



Test



Monitoring



Embedded



Control



Desktops and
Laptops



NI CompactDAQ



PXI and Modular
Instruments



NI CompactRIO



The background of the image is a complex, abstract composition. On the left side, there is a curved, tunnel-like structure with a metallic, reflective surface. This structure is illuminated with a vibrant rainbow gradient, transitioning from yellow at the top to green and then to blue at the bottom. The right side of the image is a solid, deep blue gradient. Overlaid on this blue background is the text 'NIDays' in a large, white, sans-serif font. Below 'NIDays' is the text 'WORLDWIDE GRAPHICAL SYSTEM DESIGN' in a smaller, white, sans-serif font. At the bottom is the word 'CONFERENCE' in a large, white, sans-serif font, matching the size of 'NIDays'.

NIDays

WORLDWIDE GRAPHICAL SYSTEM DESIGN

CONFERENCE