

Hands-On: Datalogging with FlexLogger and/or Python

Agenda

Introduction

(5 Minutes)

FlexLogger and/or Python Hands-On Exercises

(50 Minutes)

Datalogging Examples – Physical Systems Test



Structural Test



Component
Characterisation



Durability Test



Performance Test

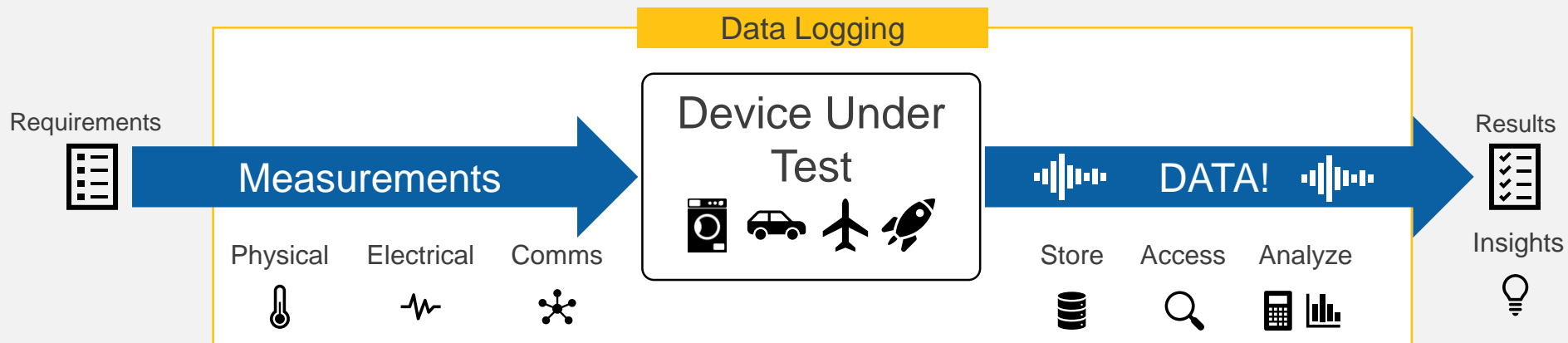


System Dynamics Test



Troubleshooting

What Is Datalogging?



Different Options for Automating NI Hardware

Options for Automation





Acquire, Visualize, and Log Data All Without Programming



Application Areas

- Physical component V&V
- Lab troubleshooting and diagnostics
- Environmental validation tests

Python APIs for NI Hardware



```
import nidaqmx

task = nidaqmx.Task()
task.ai_channels.create_voltage_channel('cDAQ1Mod1/ai0')
print task.read(number_of_samples_per_channel=10)
task.clear()
```



Components of a Measurement System

Sensor



Hardware



Signal
Conditioning

Analog-to-Digital
Converter

Software



Driver
Software

Application
Software

CompactDAQ Hardware



CompactDAQ Hands-On

Option 1: Explore FlexLogger

Option 2: Collect data using Python

Coffee Break

