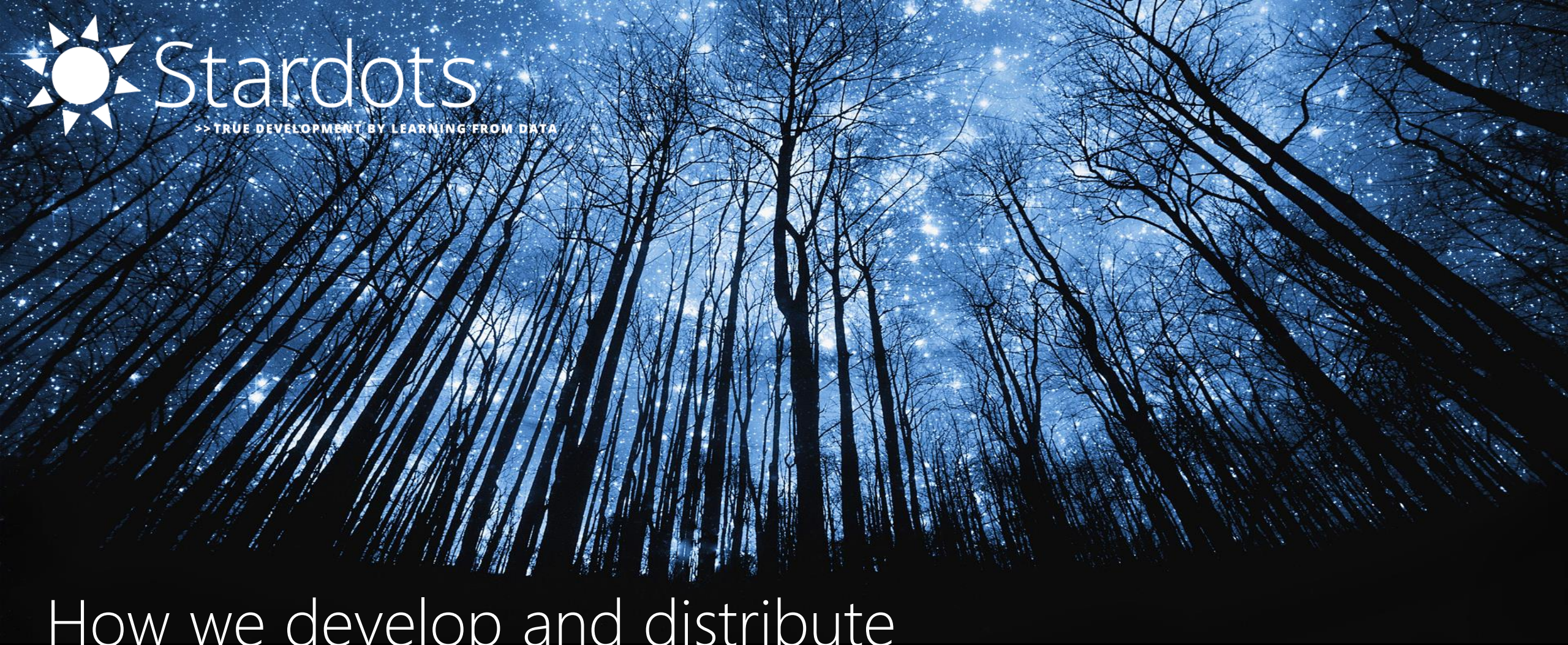

How we develop and distribute applications in MATLAB

EXPO Stockholm Sweden 2018-05-23

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Challenges

- Data-availability and analysis is core to understanding in R&D

- Difficulties in finding solutions
  - Time consumption (== $)
  - Systematization (Clear and structured code)
  - Maintenance (Comments, updating)

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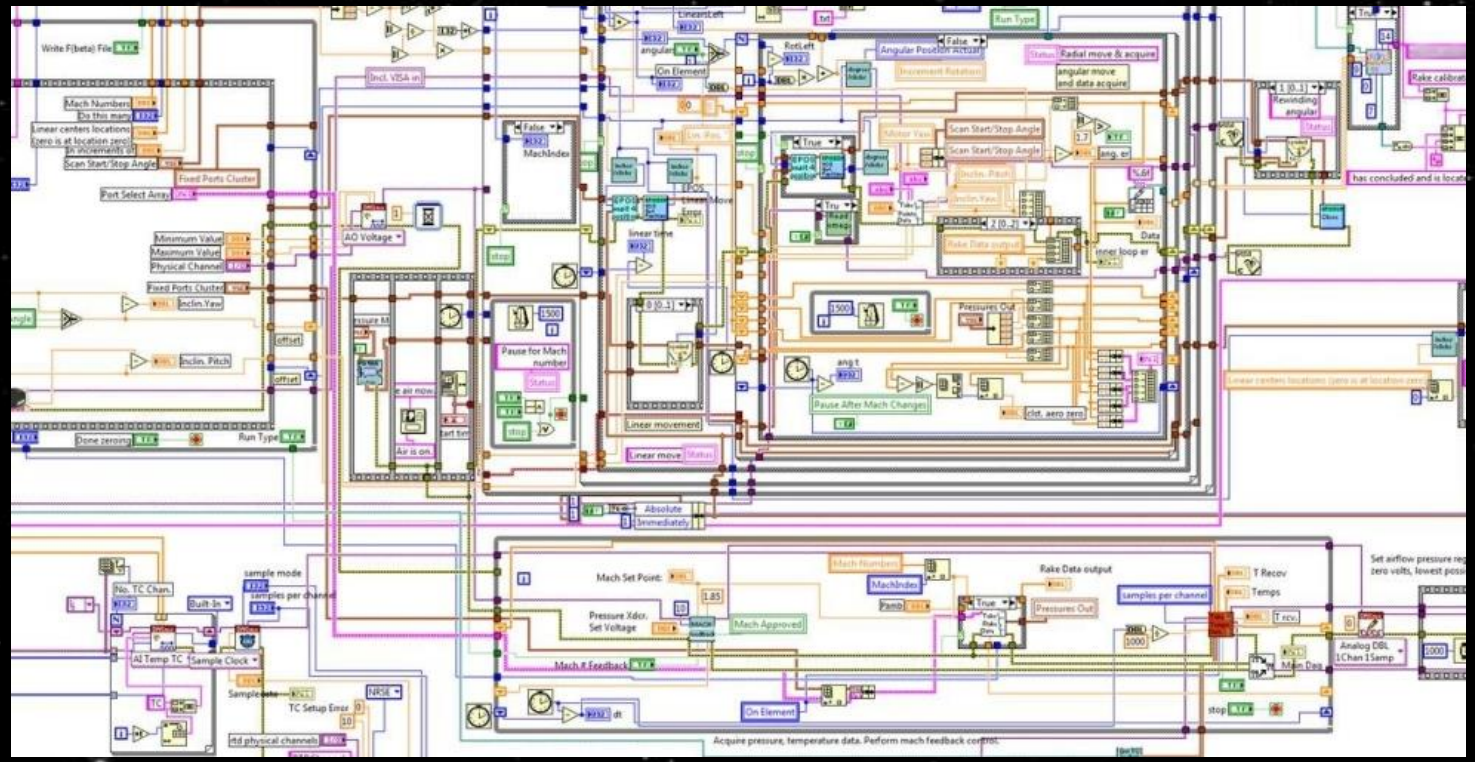
Examples

- One Java program with 4000 lines of code in one function
- Very complex graphical programming



Solution

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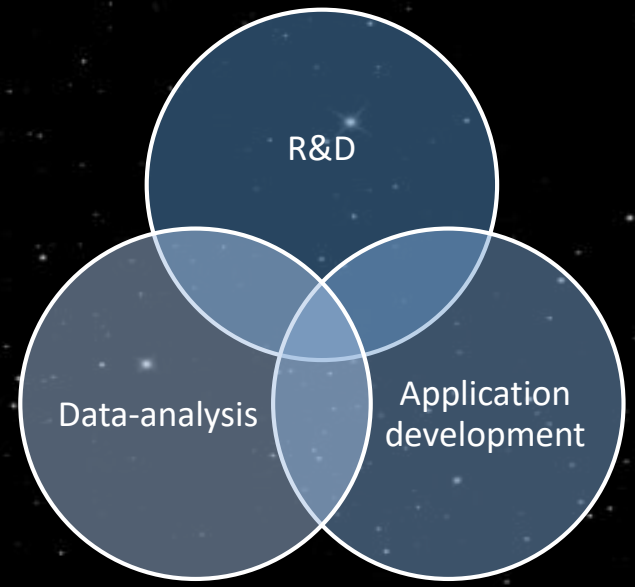

- Business idea: develop & distribute software application for R&D
- Examples: sensor acquisition, image analysis, AI, statistics
- Academia & Industry

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Business areas

Products & Services	• Software applications • Licensing
Consulting	• Tailor-made applications • Drives project to Products & Services and Joint Ventures
Joint Ventures	• Co-development with scientists and engineers • Forms new companies

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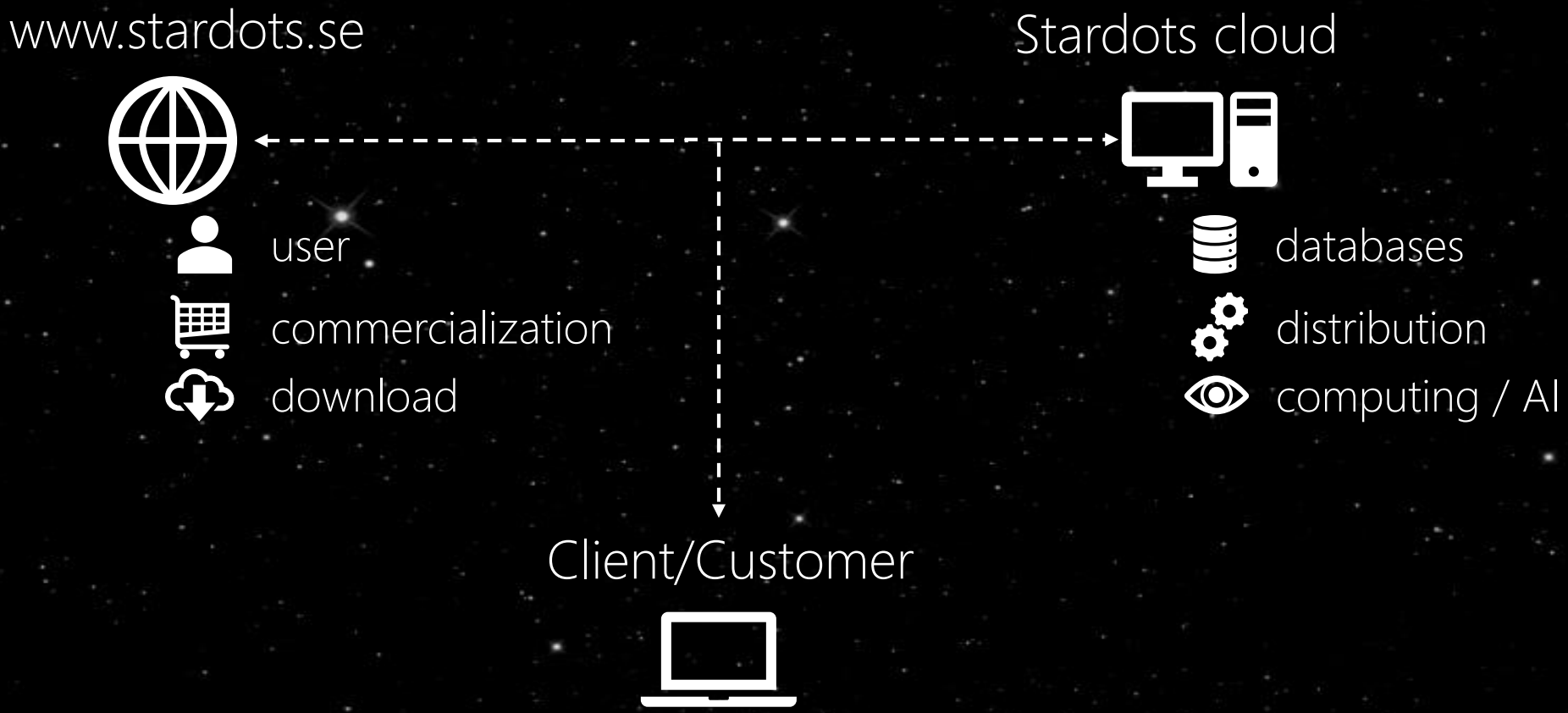
Infrastructure



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Applications framework

Installer

- OS specific
- Installs the Booter (only)

Booter

- Java (executable)
- Stardots CLOUD
- Auto updates
- Licensing
- Executable download
- MCR installs
- Dynamic splash

Main Application

- MATLAB compiled application
- Interfaces
- Computing
- Visualization
- Databases
- Console
- Logs
- Exception handling

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Why MATLAB?

MathWorks®

- Stardots main application language
- Field-tested analytics
- Superior visualizations
- Strong programming language
- Speed of development
- Cross platform
- MATLAB compiler + MATLAB Runtime

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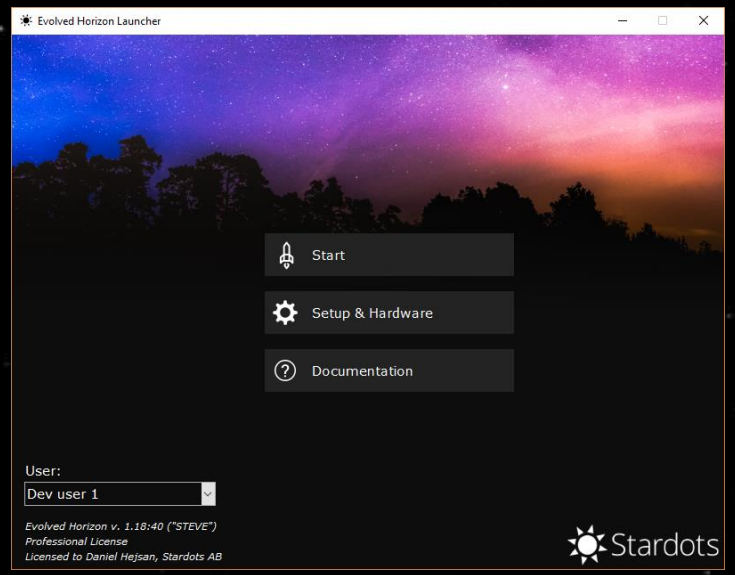
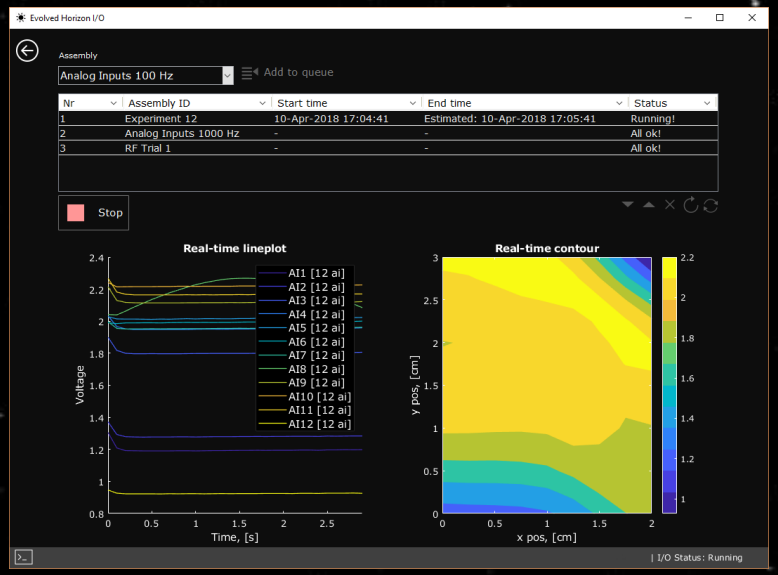
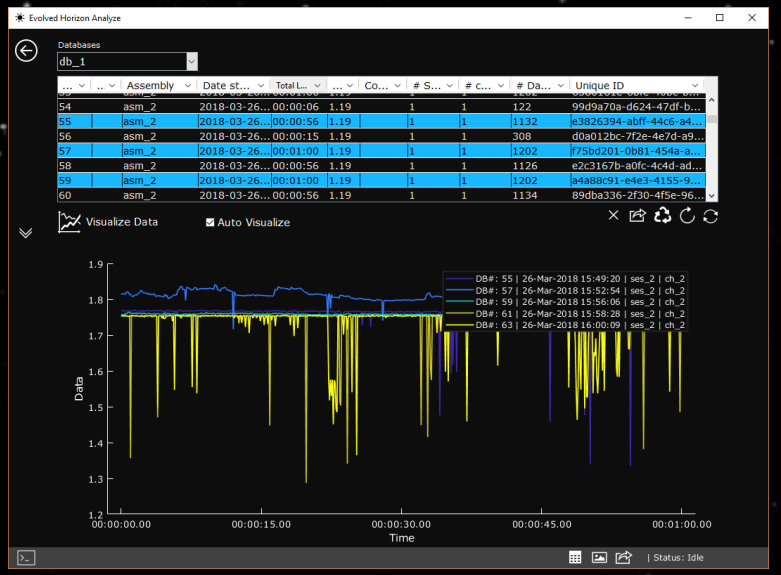
MATLAB application



Intuitive ui controls



Real-time visualizations



Advanced analytics
Big Data databases

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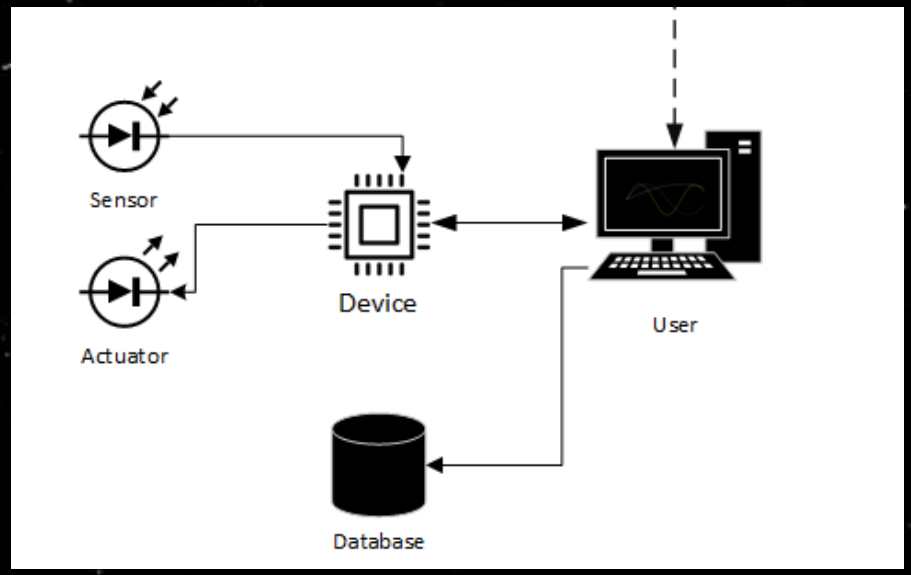
Evolved Horizon™

- Sensor and actuator acquire, storage and analysis
- Flexible, Robust and Powerful
- Arduino
- Analytics & export
- Patent pending approach (PCT)



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Closing remarks

- Large interest and need from R&D
- Harness the power & speed in MATLAB
- We are open for new projects and ideas