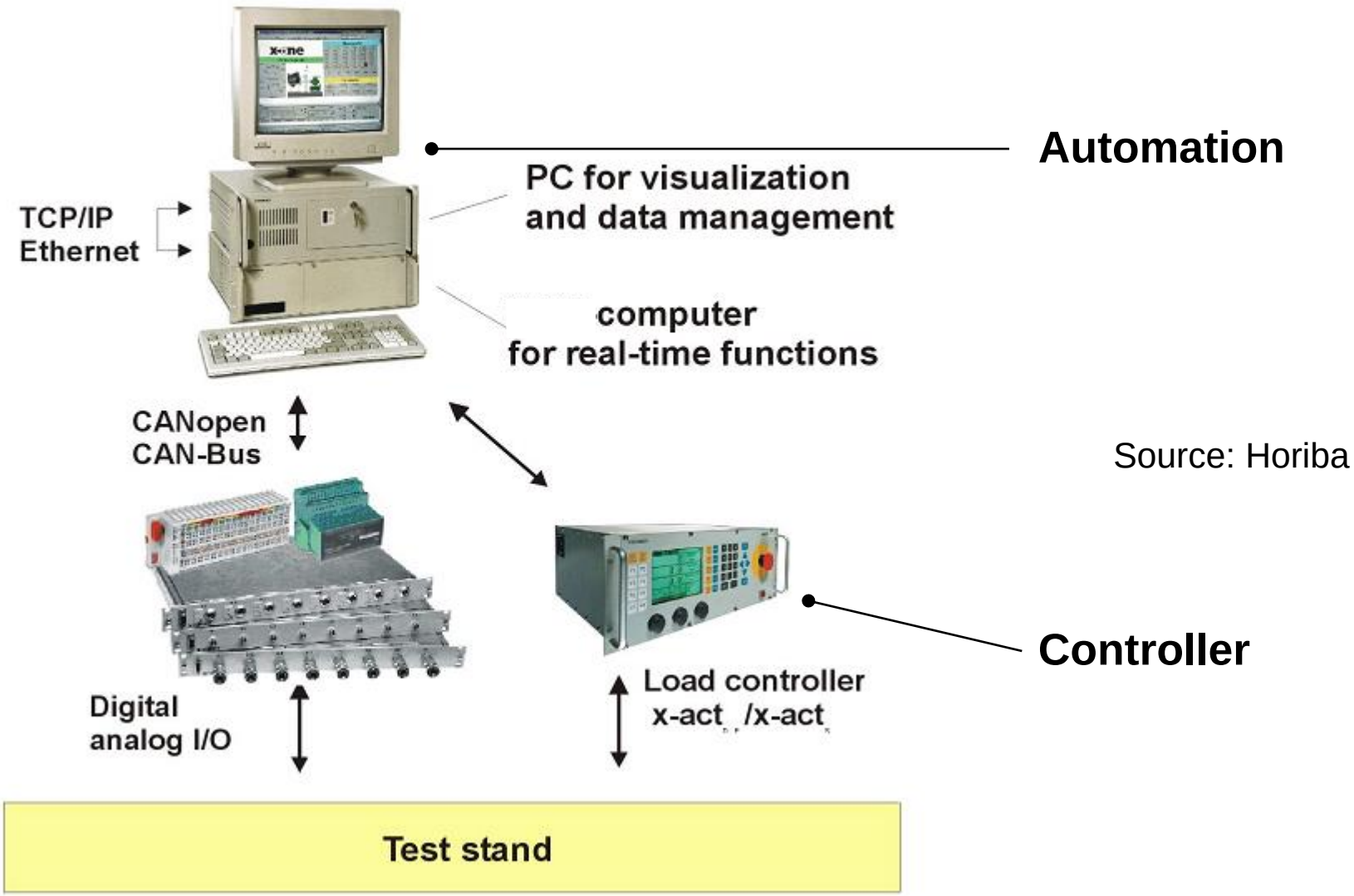
Contents

Structure



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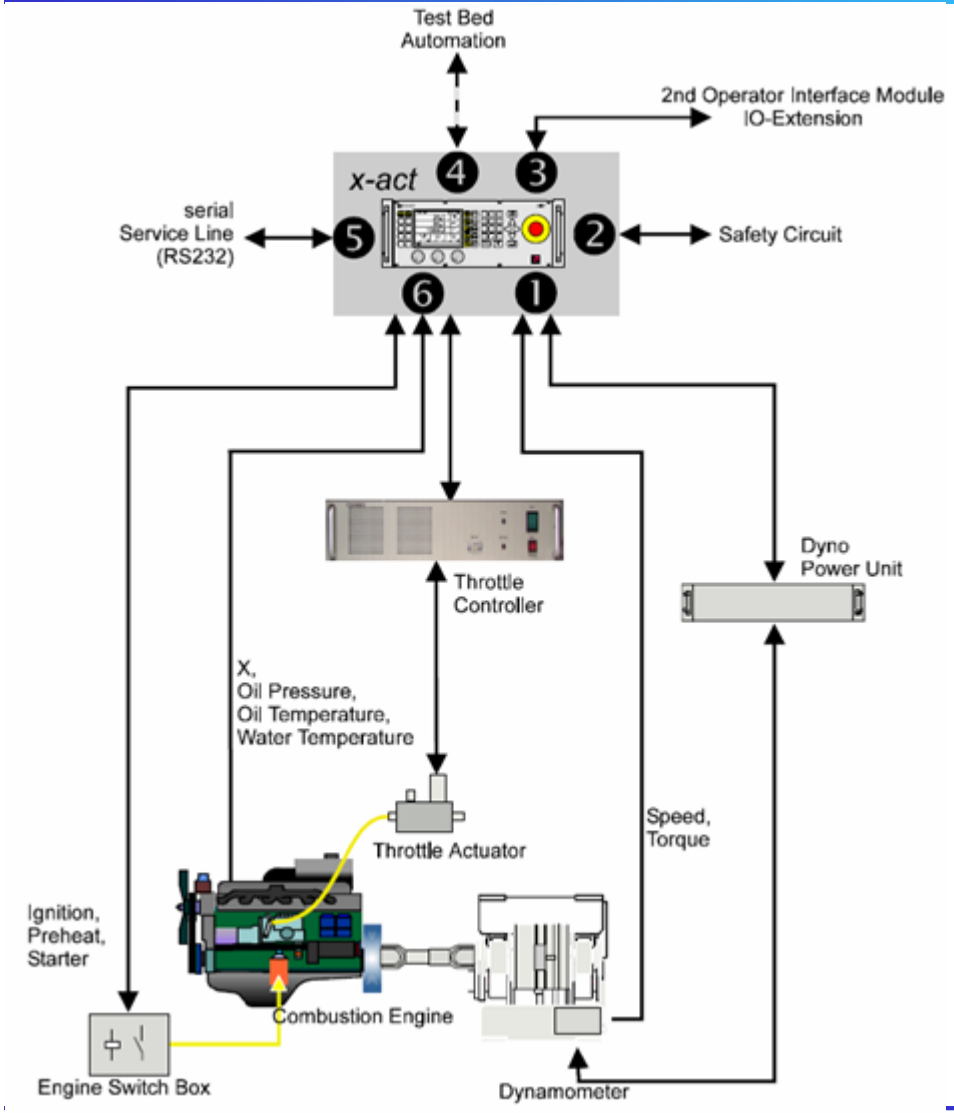
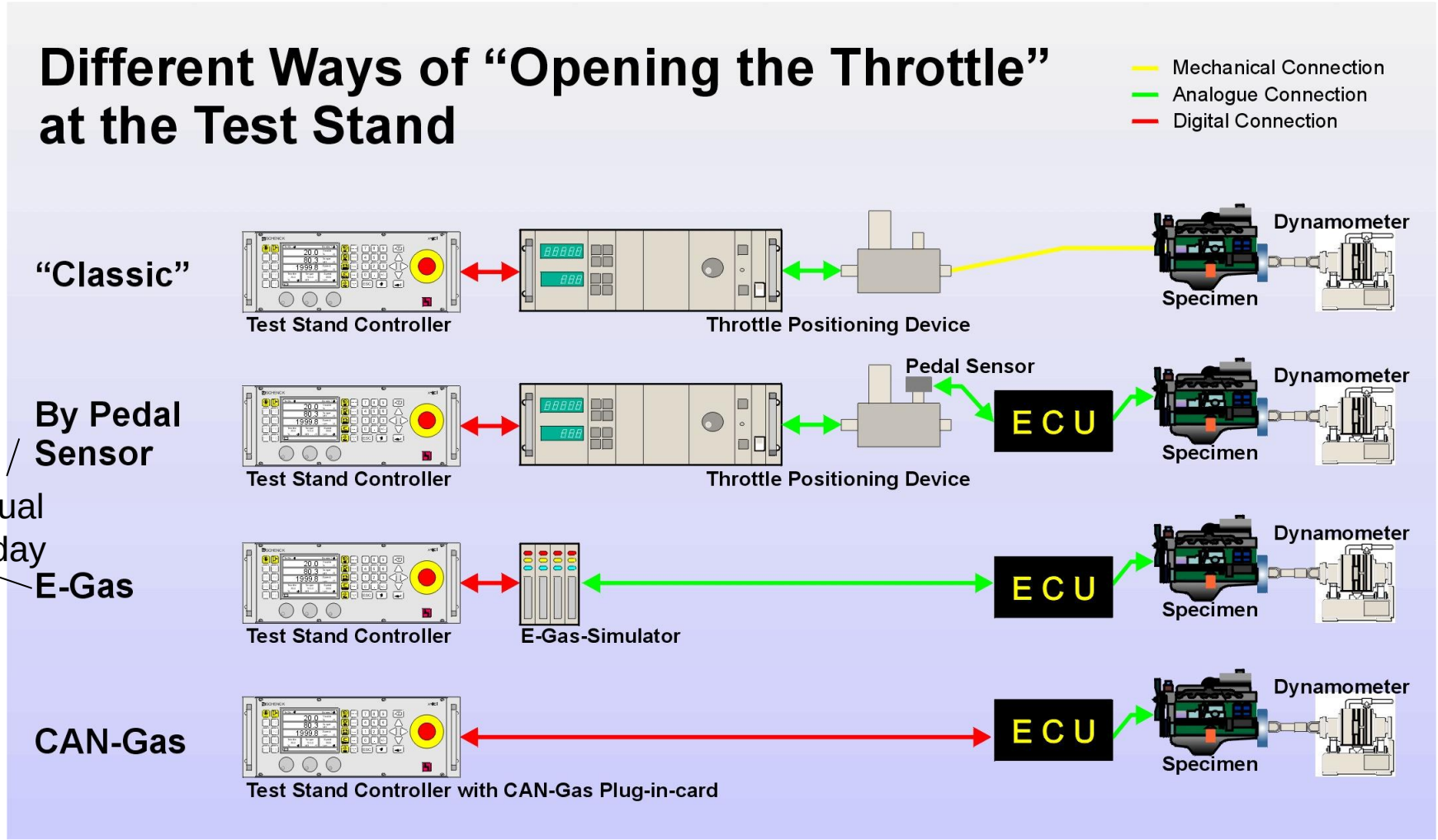


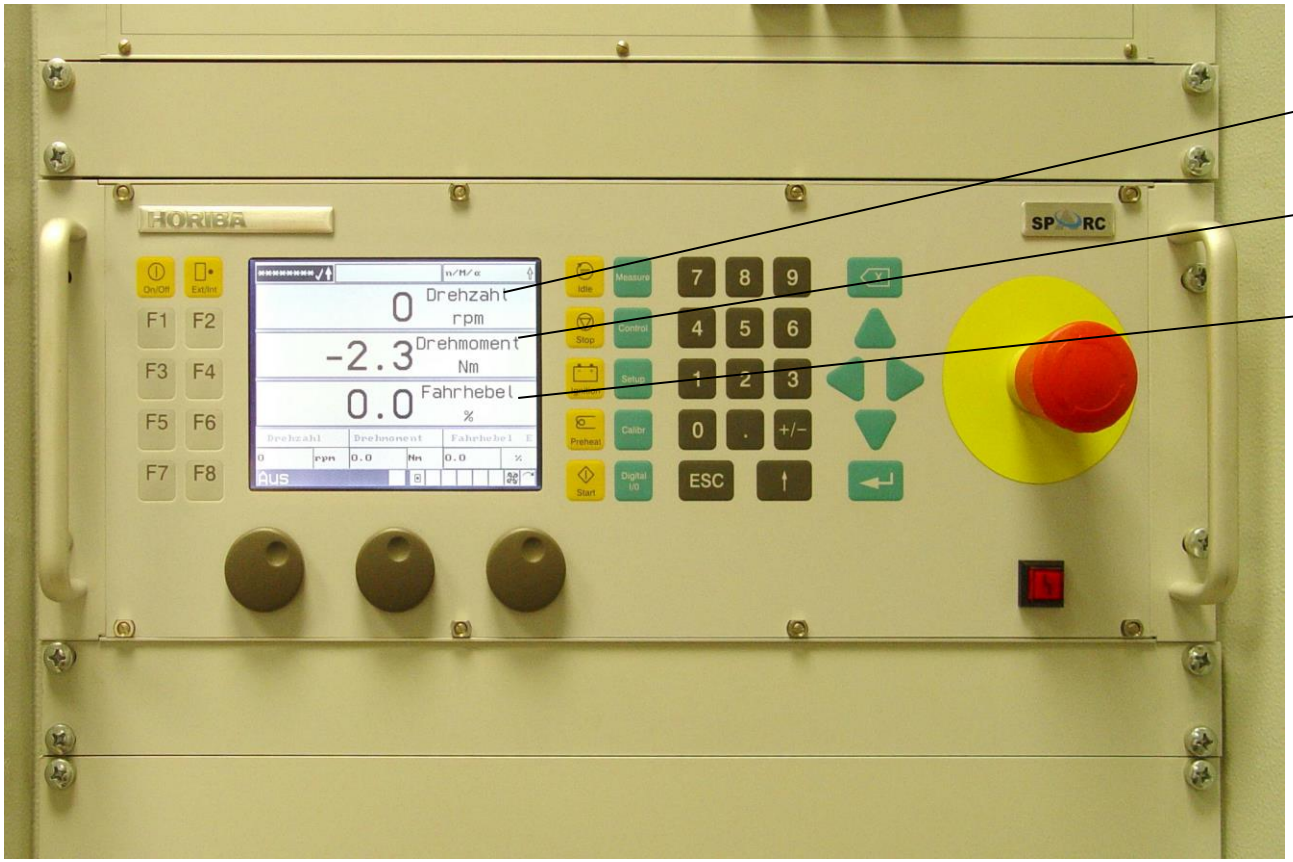
Source: Horiba

Source:
Horiba

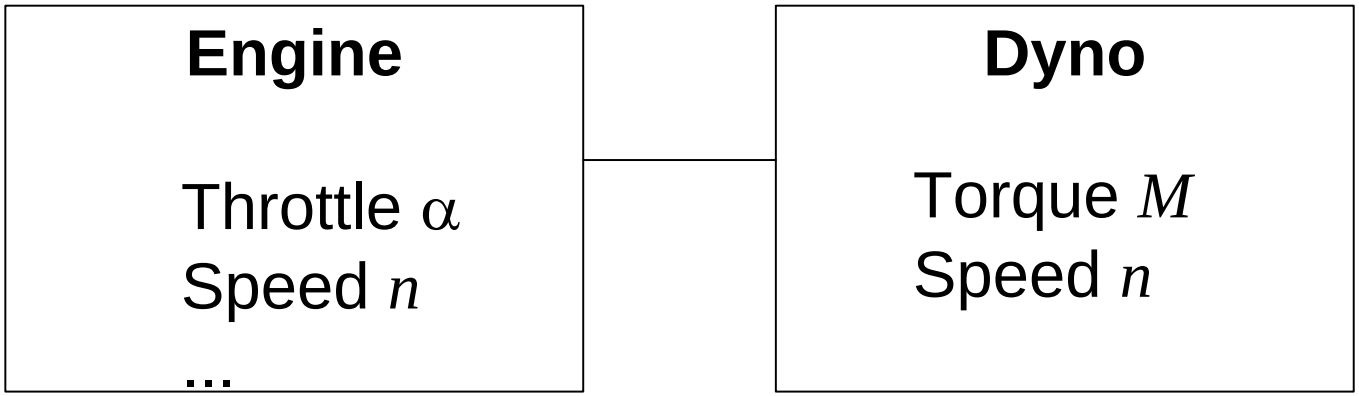


Example of Controller

(usually real-time industry PC with many interfaces and without clumsy desktop operating system)



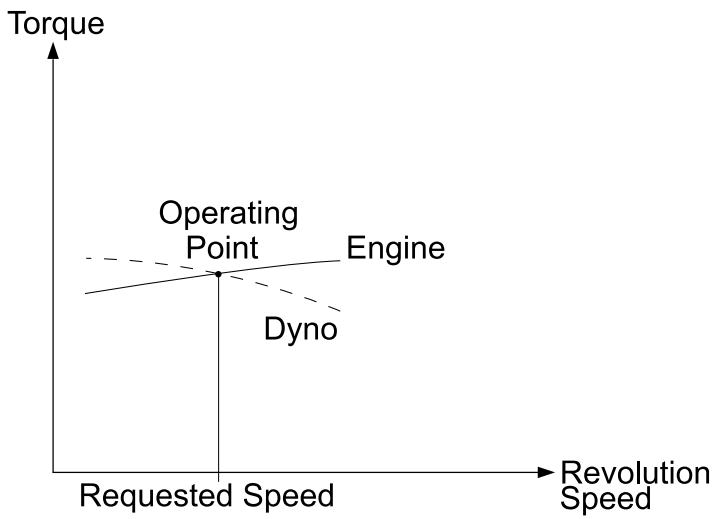
Control Strategies

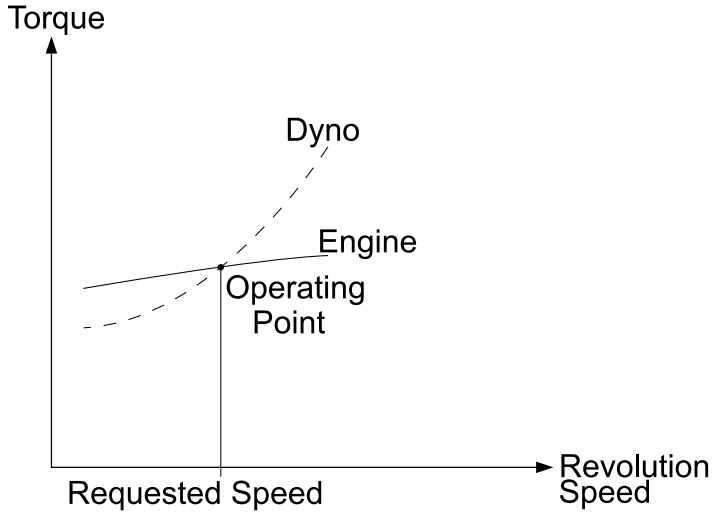


Possible Combinations of α, n, M ?

Control Strategies

Stability of Control:
Which of the two operating points is stable and which one is unstable?





Control Strategies

Examples of Control Strategies Offered by Controller

- Start
- Idle
- Stop
- Setup
- α/n (Engine/Dyno)
- α/M (also $M=0$ or $M=f(n)$)
- X/n (X: Arbitrary Value)
- n/M (also $M=0$ or $M=f(n)$)
- M/n

Road Load Simulation

- simulates resistance profile as e.g. in slide 3-2.
- considers switching program of automatic transmission (or driver model for manual transmission)
- simulates further components of powertrain if necessary

Automation

Tasks

Source: Siemens

- Test Bench Remote Control (also over Internet)
- Automatic Test Sequences
- Display, Logging and Post Processing of Measurements