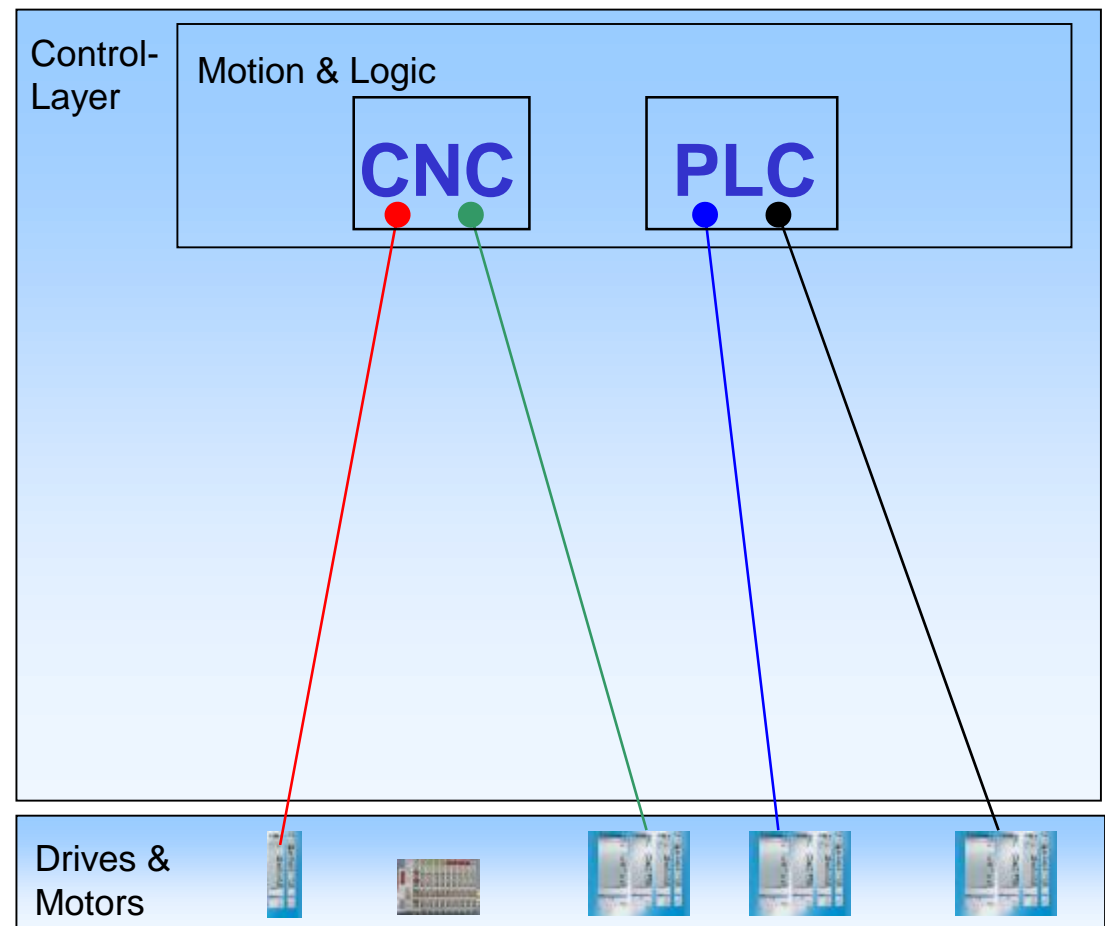# OSADL IO-Framework - Motivation
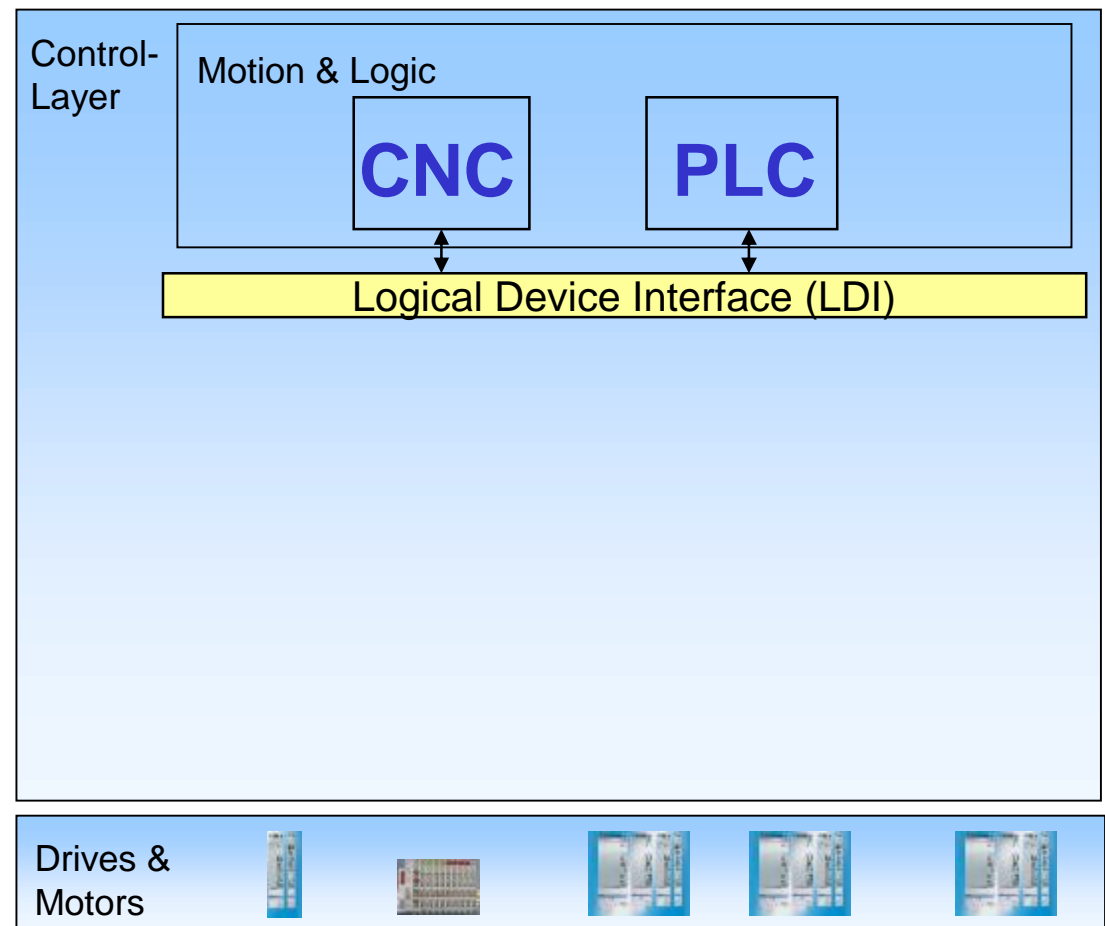
Michael Kremer, Homag AG Schopfloch

OSADL IO-Framework - Motivation

- Control Software often implements specifics of the underlying fieldbus and drive systems.

- Integration of a new drive system or fieldbus becomes complex.

  ● affects the source code of the control application

● **Prevents flexibility**

OSADL IO-Framework - Motivation

- The „Logical Device Interface"
  supports a logical view (device
  independant view) on fieldbus
  device functionality.

Control-Layer

Motion & Logic

CNC

PLC

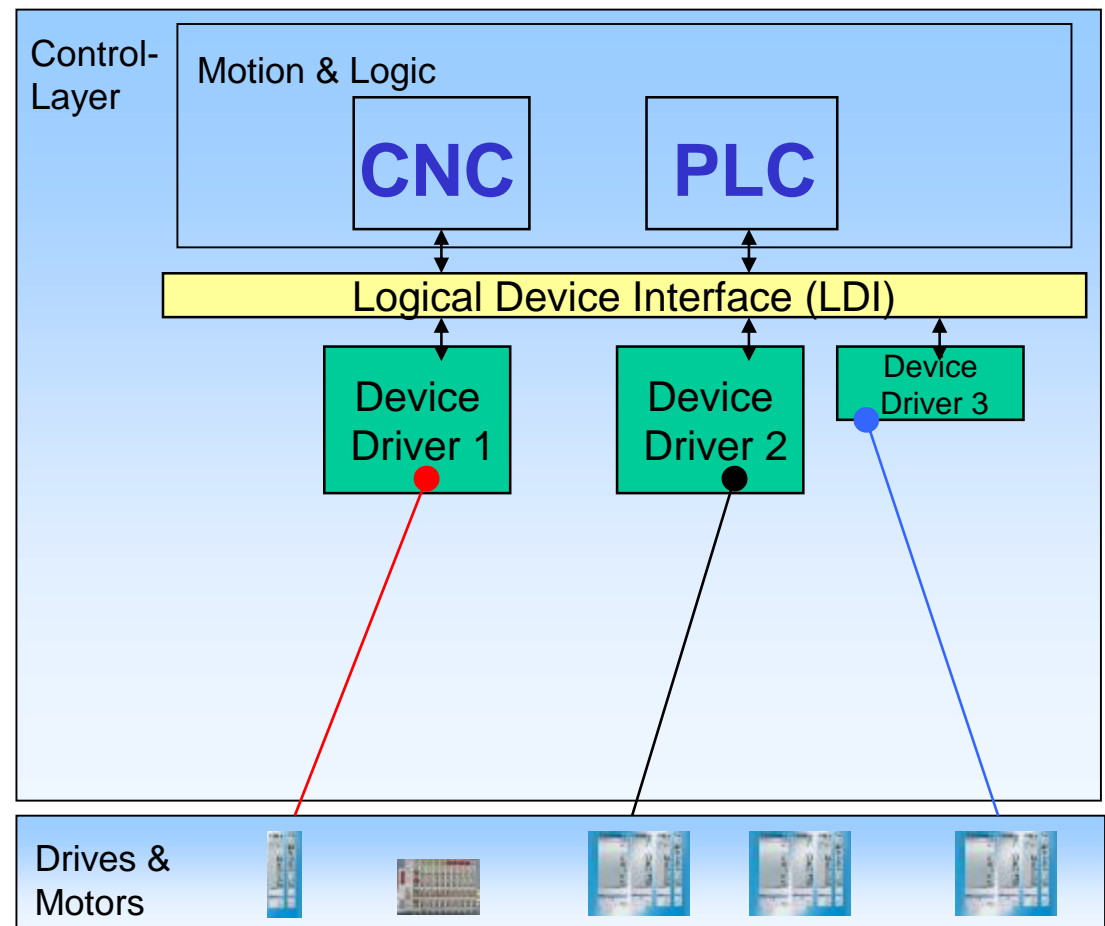Logical Device Interface (LDI)

Drives & Motors

OSADL IO-Framework - Motivation

- The „Logical Device Interface" supports a logical view (device independant view) on fieldbus device functionality.
  - logical devices

- A „Device Driver" adapts the physical device to the logical device.

OSADL IO-Framework - Motivation

- The „Logical Device Interface"
  supports a logical view (device
  independant view) on fieldbus
  device functionality.

  ● logical devices

- A „Device Driver" adapts the
  physical device to the logical
  device.

- The „Fieldbus Device Driver
  Interface (FDDI)" supports a
  fielbus independant view on
  fieldbus devices.

Control-Layer — Motion & Logic

CNC   **PLC**

Logical Device Interface (LDI)

Device Driver 1   Device Driver 2

Fieldbus Device Driver Interface (FDDI)

Fieldbus Driver 1 ... Fieldbus Driver n

Drives & Motors