Soluzioni di movimentazione prodotti smart

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PERFECTION IN AUTOMATION
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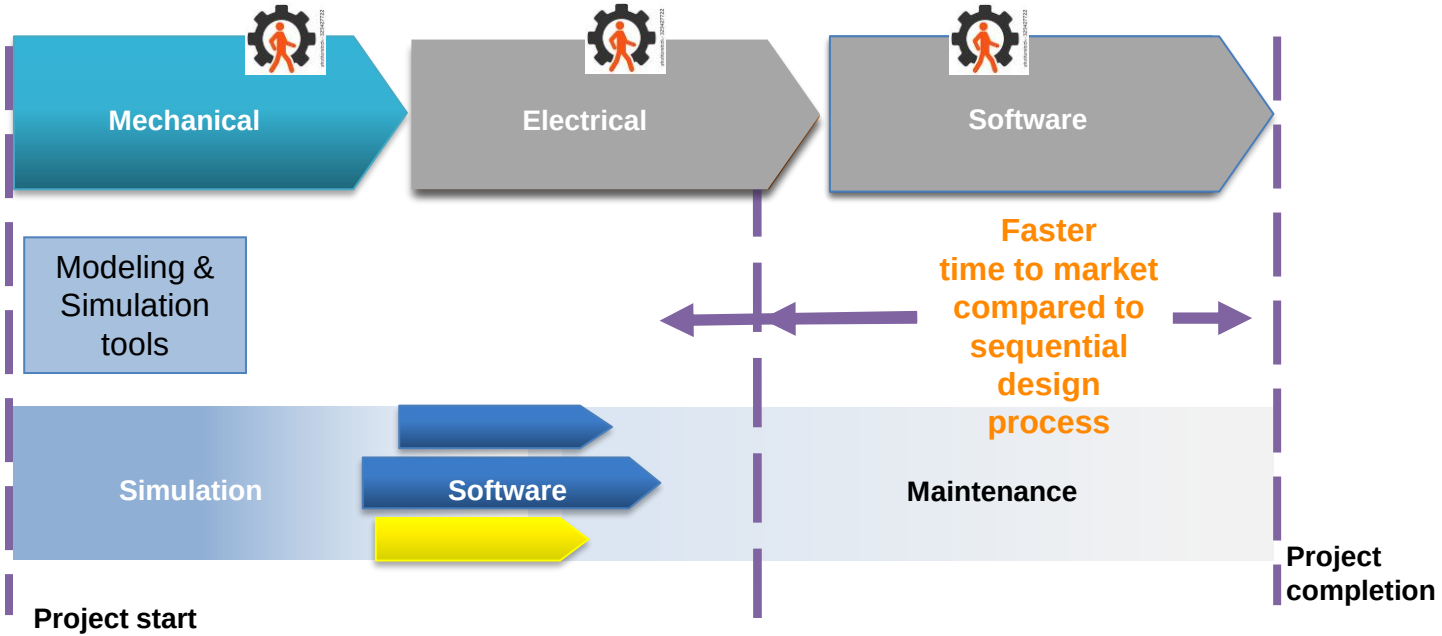
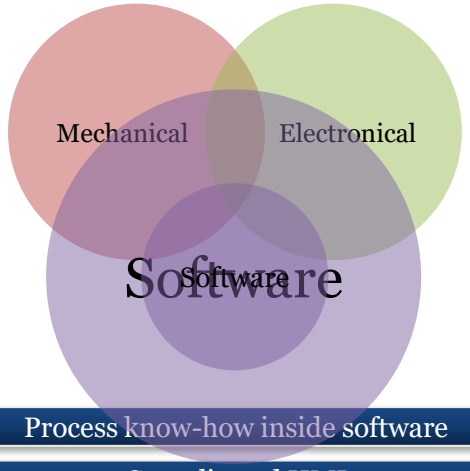
Requirements for the development process



The importance of software



Process know-how inside software

Complicated HMI

Complex sensors and attuators

Motion

IT & Data Management

Machine variants and options

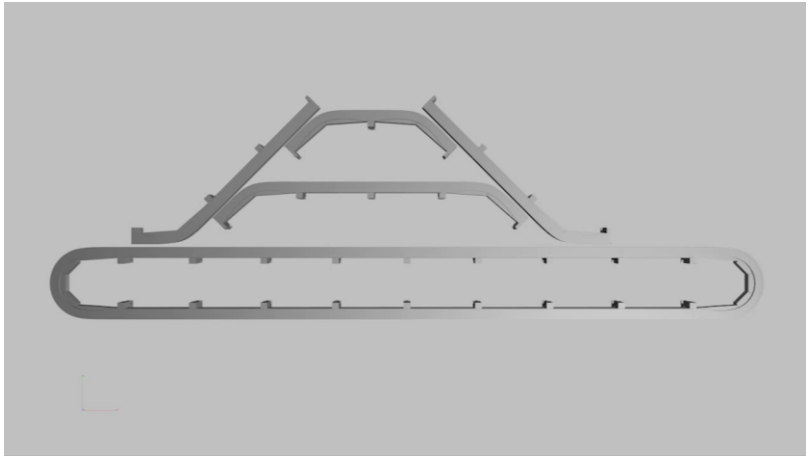
Security & Safety

Short development times

Quality?

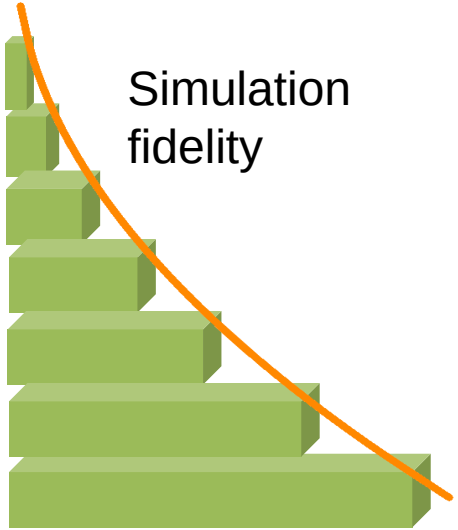
Commissioning?

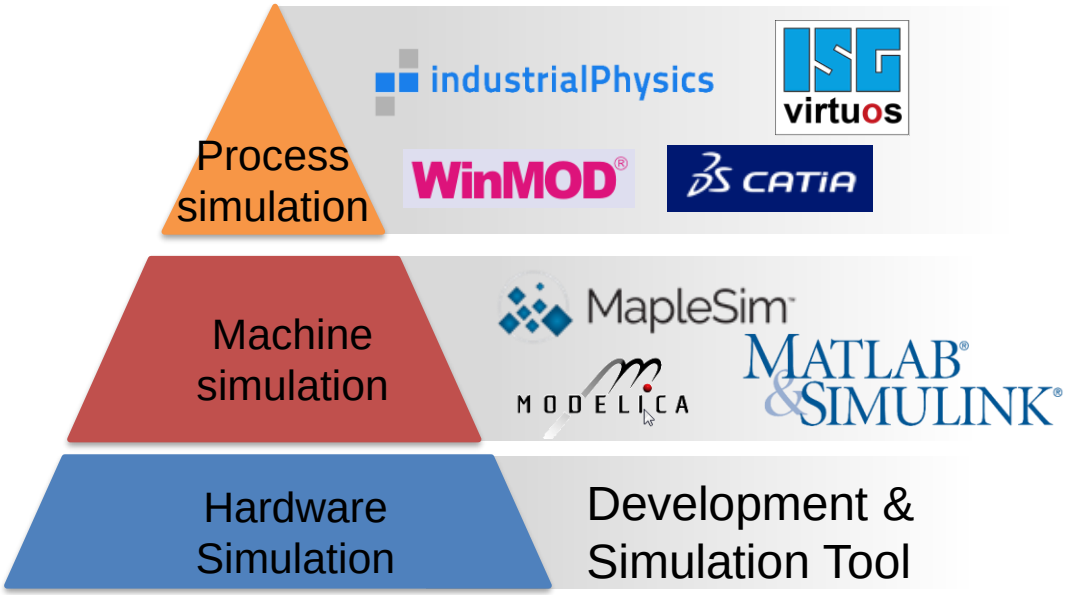
Complex moving devices



"The Digital Twin is a set of virtual information constructs that fully describes a potential or actual physical manufactured product from the micro atomic level to the macro geometrical level. At its optimum, any information that could be obtained from inspecting a physical manufactured product can be obtained from its Digital Twin.“
Grieves & Vickers (2016)

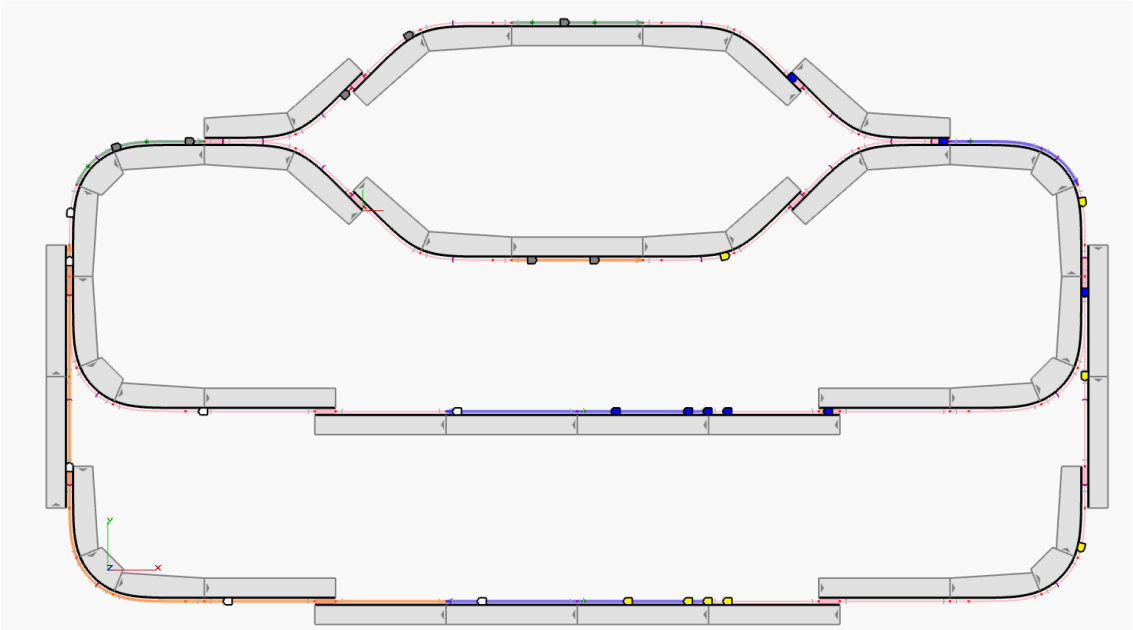
Simulation tools





Software Development

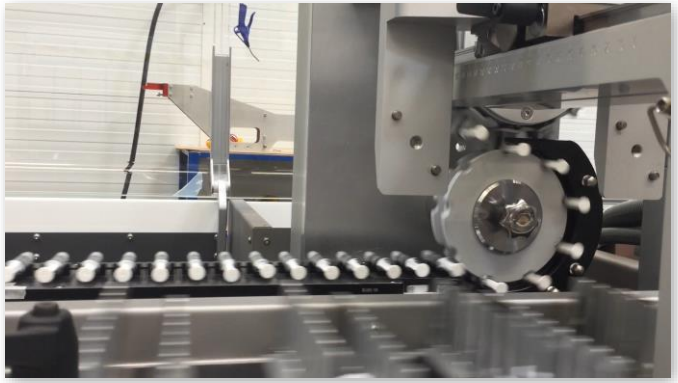
- Model simulation integrated in Development tool
- Based on graphical representation of real HW setup
- No need of changes during commissioning of real machine



Built-in digital twin

Get the innovation without the risk

- Virtual prototyping
- Simulation-based application testing before deployment on real hardware
- Built-in digital twin capability for testing performance levels
- Virtual commissioning



Why does it pay off?

TIME | COST | CHANGES AFTER TEST

Effort to use digital twin

Training & model setup 1-2 weeks | Licenses for Simulation Tools some k€ + 1-2 weeks engineering time | Time to change model: hours to days

Win with digital twin – don't use prototype setup

Prototype hardware Construction + Setup (> 1-3 month) | Prevent prototype setup hardware (some 100k€) | Prevent engineer time for prototype setup & test 1-3 month x 5-10 engineers | Time to change prototype: Reconstruction + setup week to month(s)

Thank you