



Digital twin of the Ermasmart line

Developed in the VIRTUAL UNIVERSE Pro environment

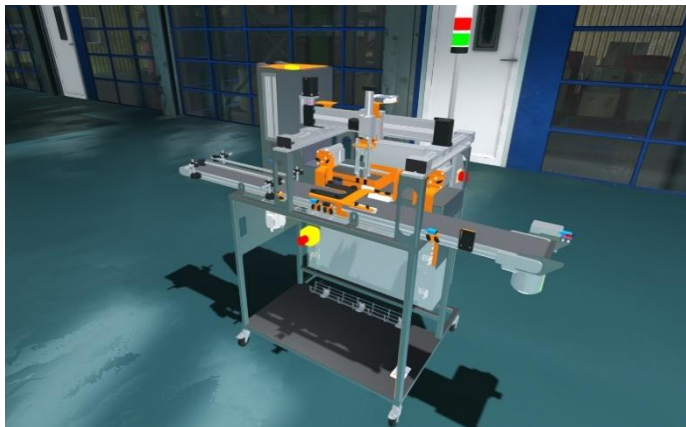
Description

The strengths of the solution:

- ✓ Possibility to create or modify 3D models from the software library or an import from the main CAD software: Solidworks, Inventor, Catia and also the main 3D file formats: 3DXML, 3DS, OBJ, etc...
- ✓ Real-time model simulation
- ✓ Identical control to the real system using the simulated console in TIA portal (it is also possible to use a real console)
- ✓ Execution of the PLC program identical to the real system through the use of a real PLC
- ✓ Modification of a program carried out as on the real machine using the SIEMENS TIA portal PLC programming software
- ✓ Connection to the PLC present in reference VI26, VI27 and VI28 (in addition to the machine PLC) to operate the Digital Twin
- ✓ Possibility of creating faults on any sensor or actuator connected to the PLC
- ✓ Use on PC or VR headset
- ✓ Fully open and modifiable simulation (e.g. changing the position of the sensors, adding an actuator or sensor)
- ✓ Ability to create your own simulations
- ✓ Interactive simulations, where the user can grasp and move objects in the 3D world

The main uses of a digital twin are:

- ✓ Training of production operators
- ✓ Pre-study/design of automated systems
- ✓ Machine programming before or during its manufacture
- ✓ Remote program modification and/or mechanical modification (without having access to the actual machine)
- ✓ Modification of a program and/or mechanical modification followed by functional tests of the modification while avoiding degradation of the system following an error
- ✓ Modification of a program and/or mechanical modification while limiting production downtime



Références:

VI26 : Programmable 3D digital twin Cartesian Robot XYZ on Virtual Universe Pro, with Siemens S7-1200 PLC Pack and I/O board (VU Pro license to be purchased separately)

VI27 : Dosaxe programmable 3D digital twin on Virtual Universe Pro, with Siemens S7-1200 PLC Pack and I/O board (VU Pro license to be purchased separately)

VI28 : Programmable 3D Digital Twin Collaborative Robot Capping & Assembly on Virtual Universe Pro, with Siemens S7-1200 PLC Pack and I/O Board (VU Pro License to be purchased separately)

VI20 : Virtual UniversePro: System simulation in a 3D environment - 1 license (Can be used on the VI06/VI07 virtual reality headset or on a classic PC)