Digital twins of the Ermaflex 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
- ✓ Control identical to the real system using the console on the PLC box
- ✓ Execution of the PLC program through the use of a real PLC
- ✓ Modification of a program performed as on the real machine using the programming software
- ✓ Connection to the PLC present in the references (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

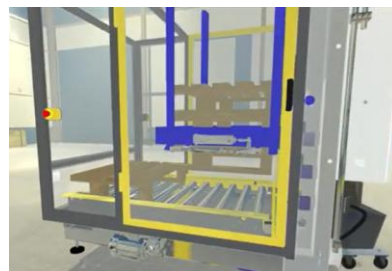**The main uses of a digital twin are:**
- ✓ Training of production operators
- ✓ Pre-study/design of automated systems
- ✓ Machine programming before or during its manufacture
- ✓ Remote program modification and/or mechanical modification (without having access to the actual machine)
- ✓ Modification 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
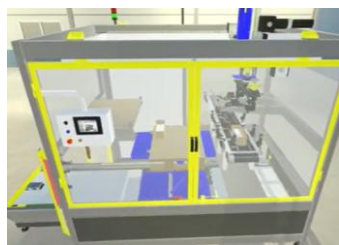

Programmable 3D digital twin Polyprod

Programmable 3D Digital Twin Ermaflex 6-Axis Packaging Robot

Multitec Programmable 3D Digital Twin (Pallet Stacker & Unstacker)

Programmable 3D digital twin Carton/tray palletizer

Programmable 3D digital twin Weight control of jars/vials

Références

VI25: Polyprod programmable 3D digital twin (Doser/Capper of jars/vials) on Virtual Universe Pro*

IR//VuProPF30: Programmable 3D Digital Twin Weight Control of Jars/Vials on Virtual Universe Pro*

IR//VuProRO10: Programmable 3D Digital Twin Ermaflex 6-axis packaging robot on Virtual Universe Pro*

IR//VuProPM90: Programmable 3D Digital Twin Carton/Tray Palletizer on Virtual Universe Pro*

IR//VuProOM50: Multitec Programmable 3D Digital Twin (Pallet Stacker and Unstacker) on Virtual Universe Pro*

EA60: PLC 4.0 Environment + Polyprod Console with 3D Digital Twin on Virtual Universe Pro*

EA61: Environment 4.0 PLC + Weight Control Console with 3D Digital Twin on Virtual Universe Pro*

EA62: Ermaflex 6-axis Robotic Cell Environment 4.0 + Console with 3D Digital Twin on Virtual Universe Pro*

EA63: PLC 4.0 Environment + Palletizer Console with 3D Digital Twin on Virtual Universe Pro *

EA64: PLC 4.0 Environment + Multitec Console (Pallet Stacker-Unstacker) with 3D Digital Twin on Virtual Universe Pro *

VI20: Virtual UniversePro: System Simulation in a 3D Environment - 1 license (Can be used on a virtual reality headset or classic PC)

* VU Pro license to be purchased separately