

trinity

# RAPID MAPPING OF A PRODUCTION SYSTEM IN A VIRTUAL ENVIRONMENT

PRODUCTION MANAGER VERSION



[www.trinityrobotics.eu](http://www.trinityrobotics.eu)



The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

# Purpose of the module

- The module presents a method for rapid mapping of a production system in a virtual environment. The virtual model is created in a simulation program.
- The benefit of having a virtual copy of the physical production system is testing different types of layout in the current layout, optimizing the production and performing offline testing.



# Hardware requirements

- Mobile robot

- Used to scan and create a map of the manufacturing environment
- A 3D camera can also be used for scanning of the environment

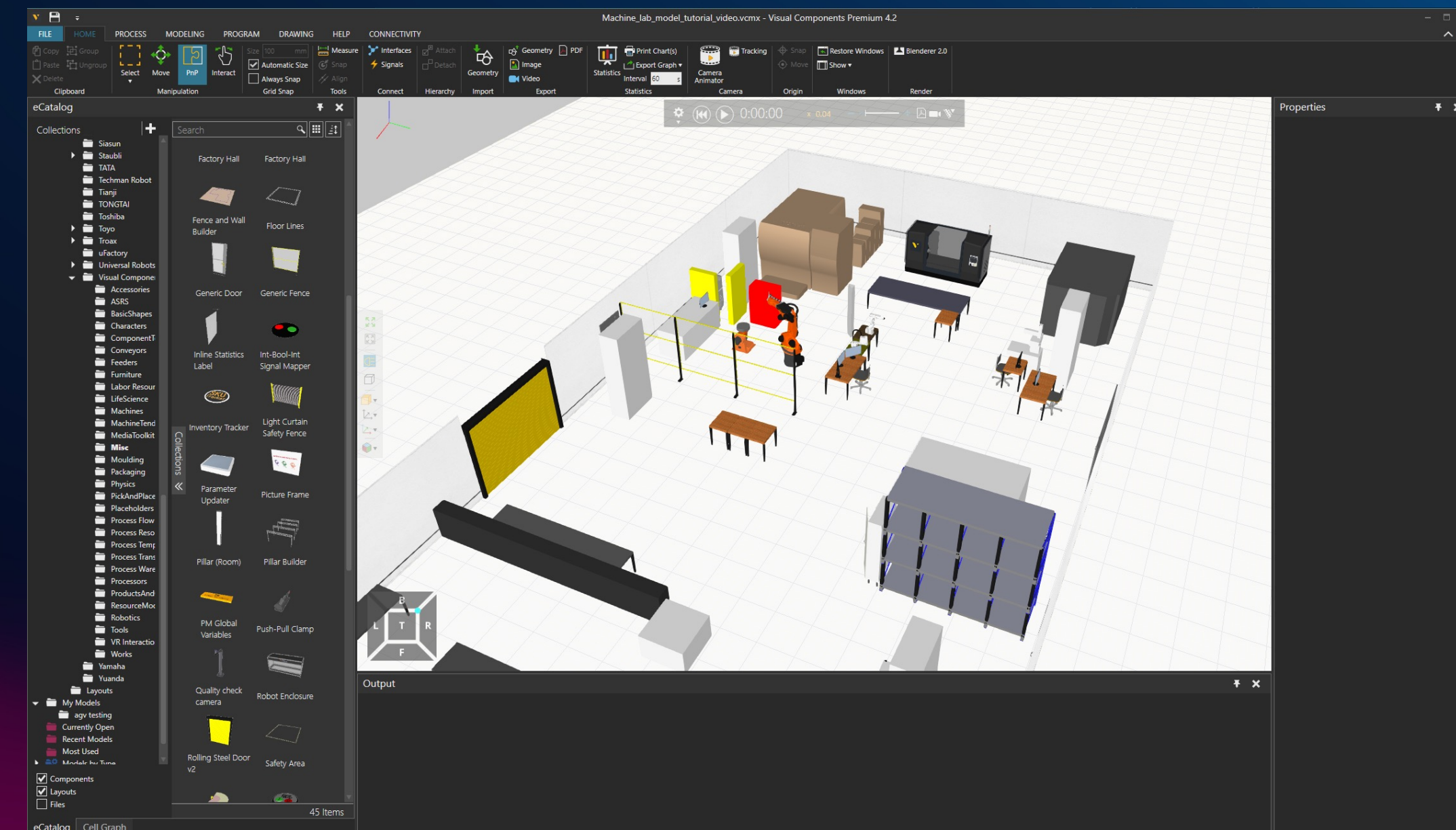
<https://academy.visualcomponents.com/lessons/import-point-cloud/>

- Computer



# Software requirements

- Visual Components Premium
  - Simulation software used to create the digital twin model
- Scanning software from the mobile robot



Visual Components



# Environmental requirements

- This module has no significant environmental requirements other than that the mobile robot can drive around the scanning area.
  - The mobile robot needs a flat and clean surface with no small parts on the floor.



# Integration

- This module creates a digital twin model of a production environment. The digital twin model can be integrated into an already existing environment and work as a support tool.



# Thank you.

If you are interested in more tutorials on this module or other use cases, please follow the links in the use case lectures.



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