

B-01 TwinCAT

Picking quasi-aligned workpieces utilizing machine learning

- Third parties can develop robot functions in a TwinCAT environment. TwinCAT Vision and TwinCAT Vision Neural Network enable picking quasi-aligned workpieces utilizing machine learning.

3D object recognition with a 2D camera

Feature points (i.e., workpiece corners and edges) are detected from 2D image data. Inference utilizing machine learning is performed to obtain workpiece posture information from the detected feature points.

Feature point detection (TC3 Vision)

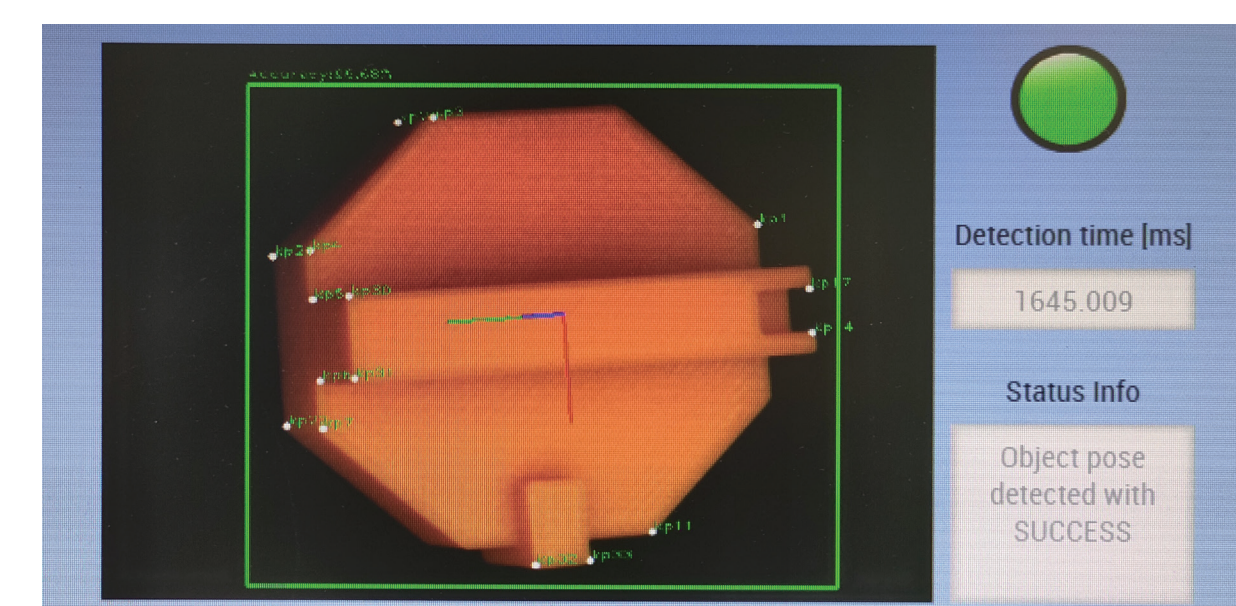
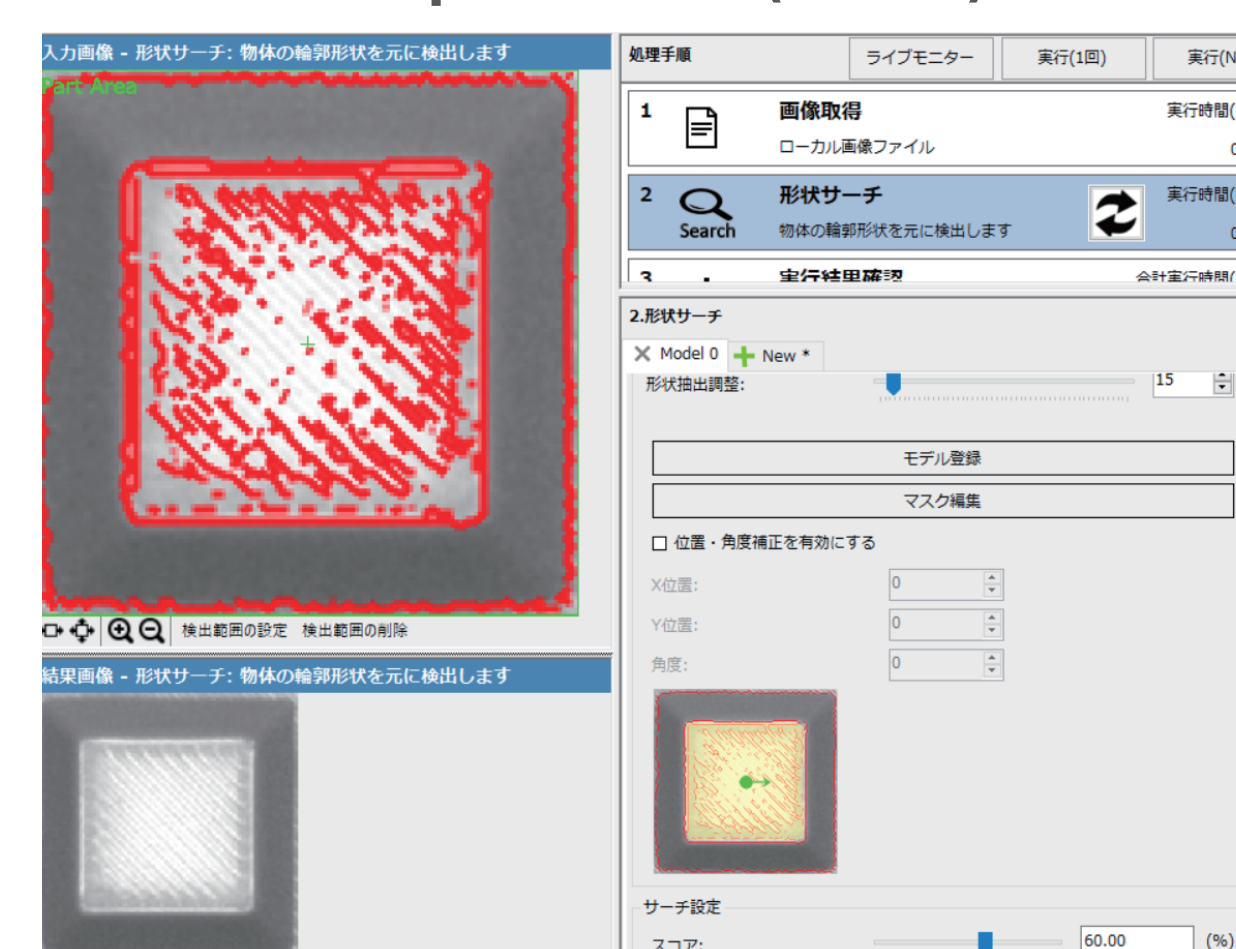


Image libraries can be switched as needed

Image processing libraries can be switched seamlessly; a 3D object recognition library for inclined workpieces, and EVP2 for workpieces that can be processed in 2 dimensions.

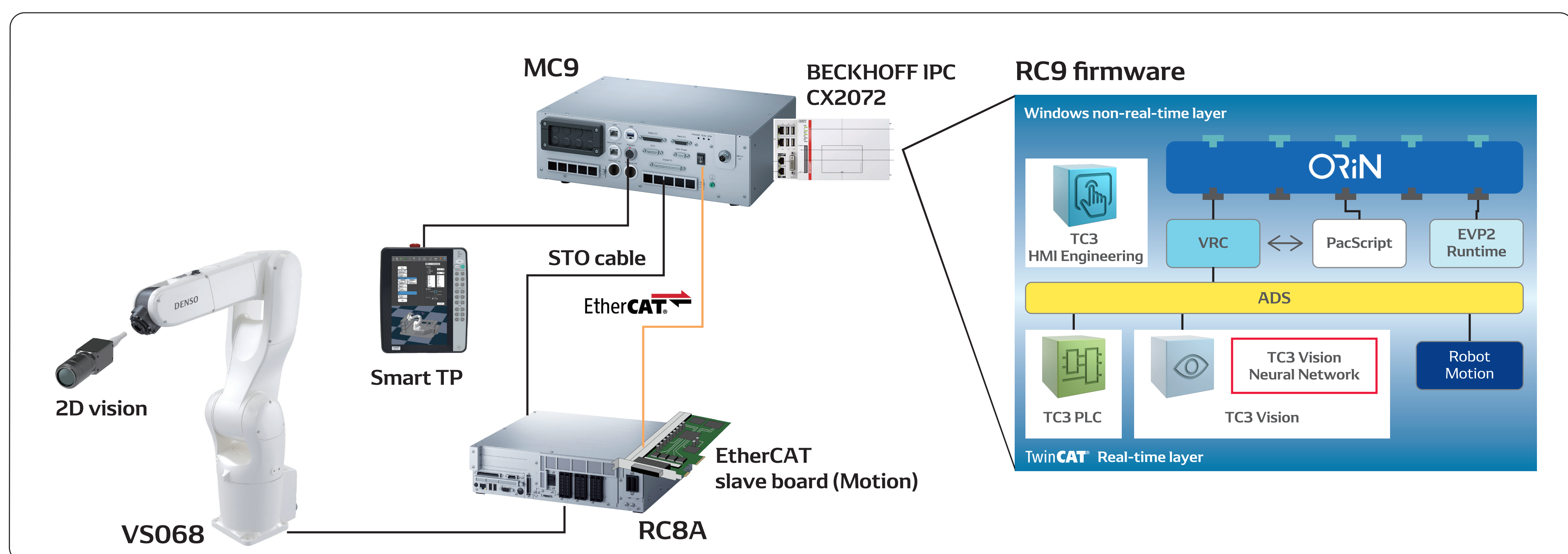
Shape search (EVP2)



System configuration

Flexible hardware and software configurations

(1) Integrated control



(2) Decentralized control

