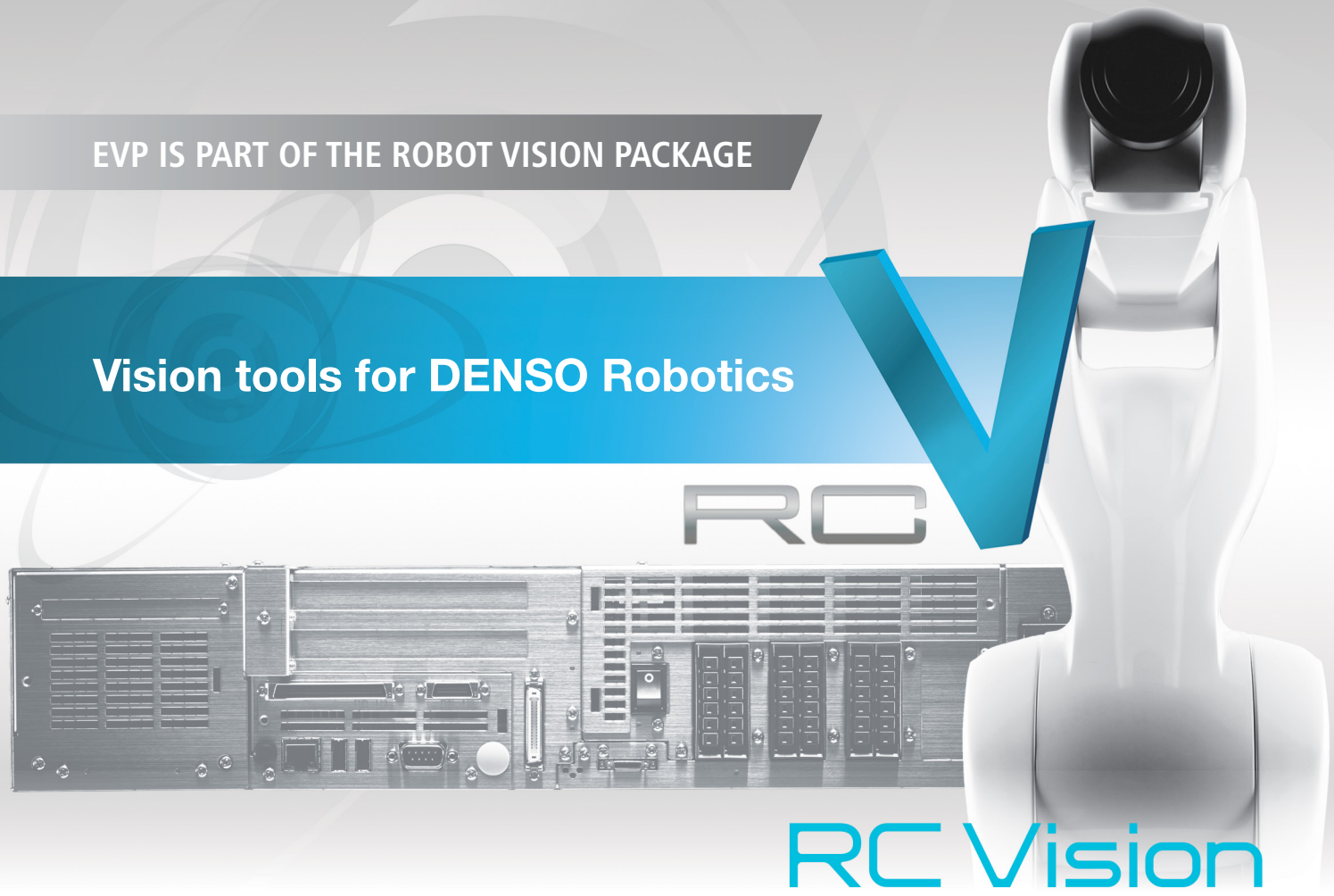
DENSO

NEW **EVP** (Easy Vision Picking)

Image processing software for 'pick & place' applications with DENSO robots

EVP IS PART OF THE ROBOT VISION PACKAGE

Vision tools for DENSO Robotics



www.densorobotics-europe.com

For Windows® Vista / 7 / 8

ORiN Version 2

NEW

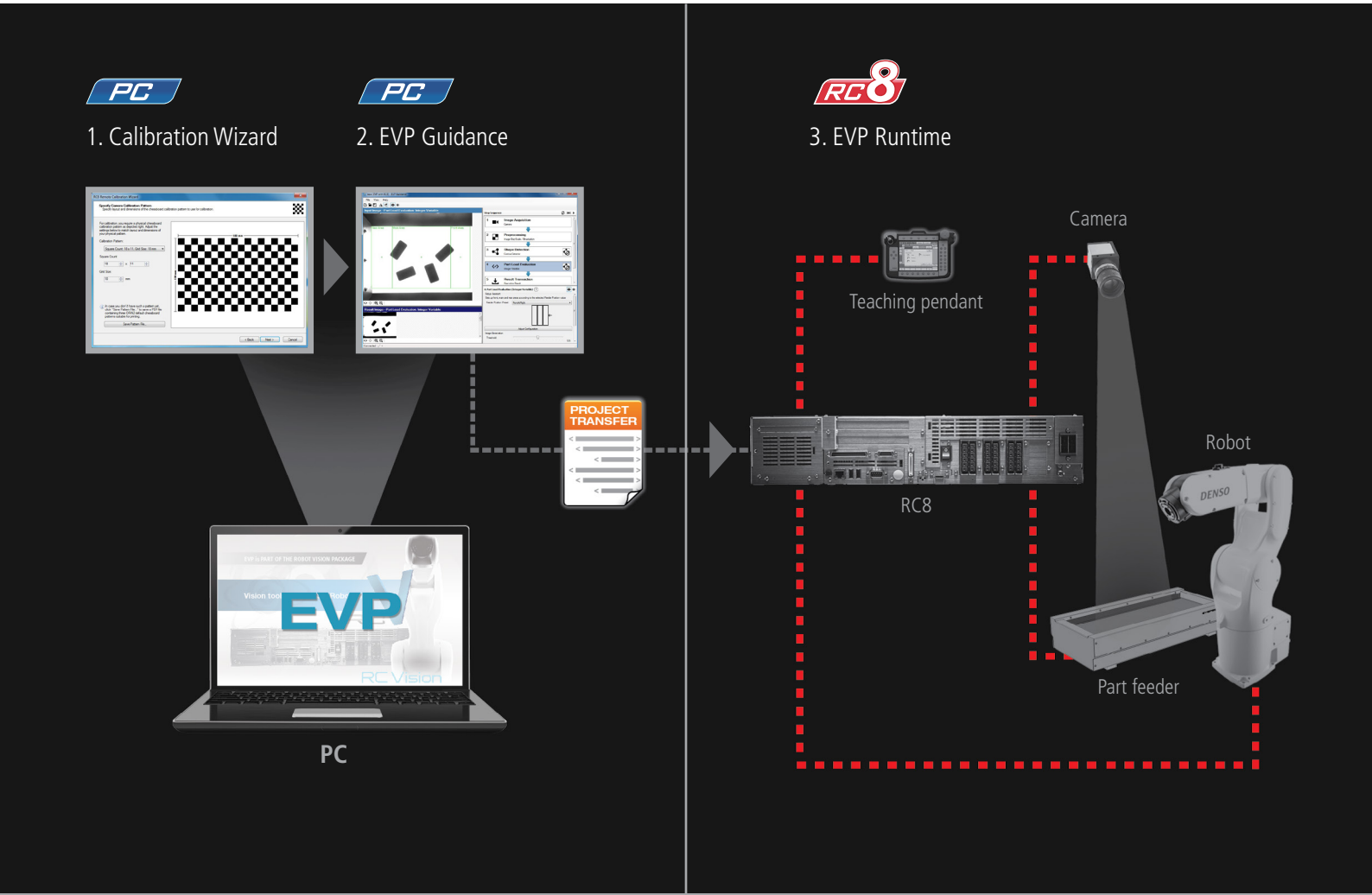
EVP

DENSO has developed easy-to-use image processing software for 'pick & place' applications with DENSO robots that enables you to execute your vision projects directly in the robot's controller.

Key Advantages

- Complete vision application is running on DENSO's robot controller RC8 (no PC needed)
- No need of an external vision system; EVP is already preinstalled in the RC8
- Easy to set up and use; no high level experience in vision applications needed
- Simple camera and robot calibration process
- Connect and configure part feeders to your vision applications; e.g. EYEFEEDER® and Anyfeed™
- Reduce costs, setup time and effort
- Use a wide array of industrial cameras

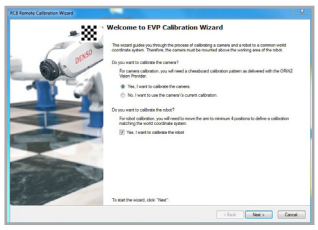
How it works



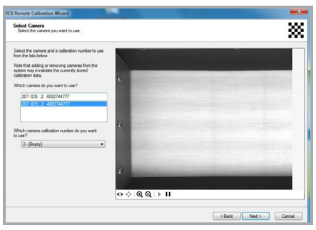
SET UP YOUR VISION APPLICATION IN A FEW EASY STEPS

PC

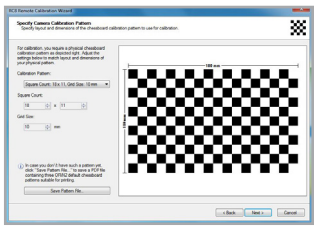
The **Calibration Wizard** guides you through the process of calibrating a camera and robot to a common world coordinate system.



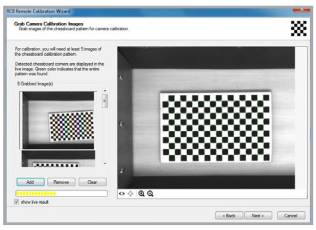
1. Start the Calibration Wizard



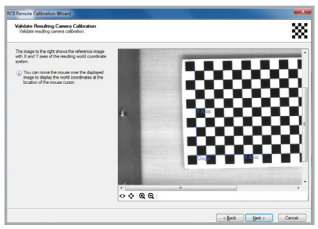
2. Select the camera to be used



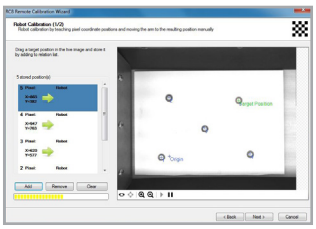
3. Specify layout and dimensions of the calibration pattern to use for calibration



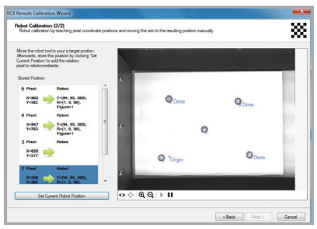
4. Grab images of the chessboard for camera calibration



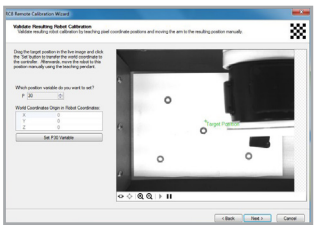
5. Validate the resulting camera calibration



6. Select target positions from live image for robot calibration



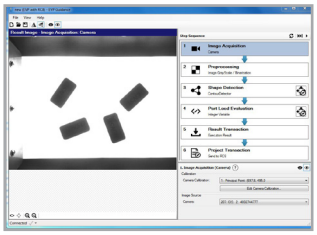
7. Teach the robot to the selected positions



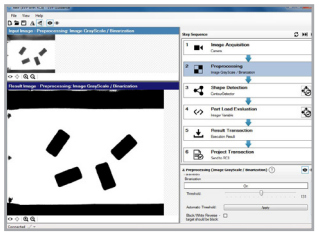
8. Validate the resulting robot calibration

The **EVP Guidance** enables you to create your vision application in an easy and intuitive manner in only 6 steps.

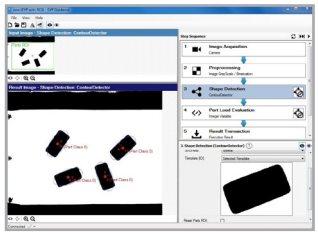
PC



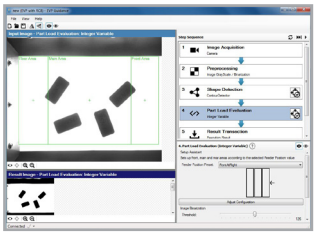
1. **Image Acquisition:** Select camera and calibration ID



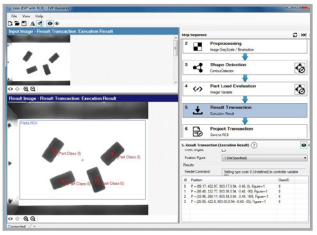
2. **Preprocessing:** Binarize the image or select a color filter



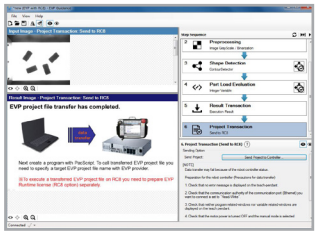
3. **Detection:** Configure the parts to be detected



4. **Part Load Evaluation:** Configure your feeder output



5. **Result Transaction:** Check the pick positions of the robot



6. **Project Transaction:** Send the project to the RC8 controller

Project transfer from PC to robot controller (RC8)

RC8

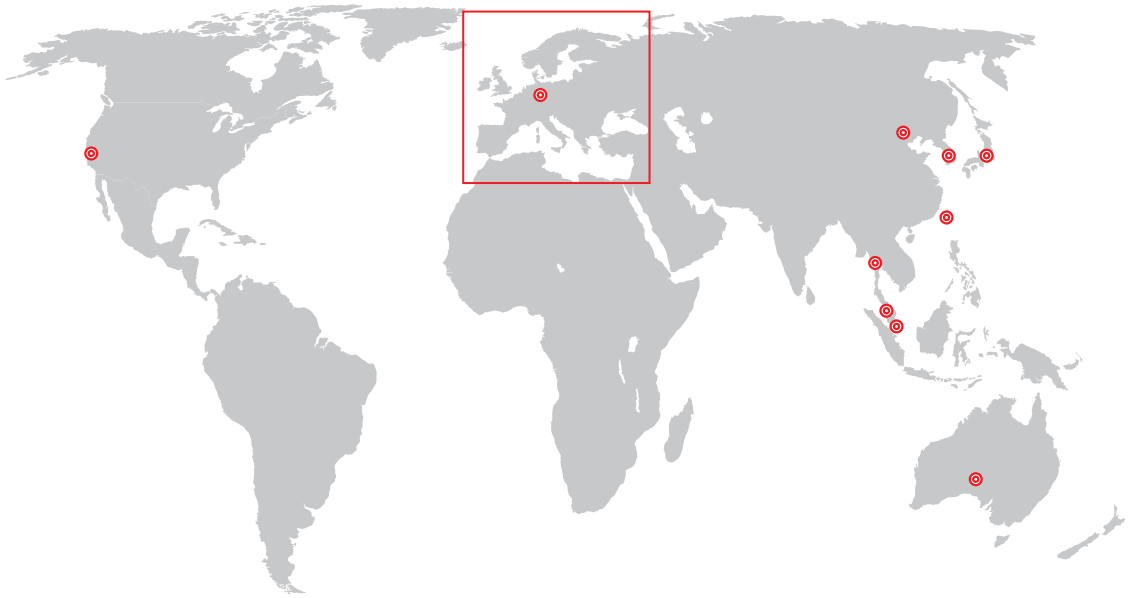
With **EVP Runtime** you can start your vision application directly in the robot's controller (no PC needed anymore at this stage).

1. Create an EVP Runtime project by using a defined template

2. Adapt the template as needed. Load the created vision project and start it. That's it!

For more information about EVP visit our website: www.densorobotics-europe.com

DENSO



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For more information

The QR-Code's inventor

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