

**With the Mikado software, AIT Goehner develops application-specific solutions in the field of robot guidance.**

Until now, the configuration of a bin picking application was not only very complex and time-consuming, but also required extensive knowledge of robotics and image processing. AIT Goehner offers the plant manufacturer to check the feasibility of a robot guidance task and then creating and implementing the processes using Mikado software. Workpieces can be easily defined using CAD data, and the robot application is parameterized using a GUI tool. Using a software simulator, the application can be checked for errors and optimized before commissioning without any risk. In live operation, an Ensenso stereo camera helps the robot independently find and grip workpieces on the basis of a 3D image.

### **What does Mikado offer?**

With Mikado ARC ("Adaptive Robot Control"), you can now quickly and easily create bin picking, pick & place applications or end-of-line controls with robots. Instead of following predefined, taught-in and firmly defined paths, the robot automatically orients itself in the working area and reacts to every situation. Adaptive path planning and collision checking as well as a clearly arranged graphical gripping point editor simplify and shorten the changeover. This enables simple part changes in just 10 minutes due to minor modifications of the workpiece parameters. Even with high workpiece variance, small batches and prototype construction can be automated very efficiently with Mikado ARC.

### **Why Mikado?**

Mikado ARC replaces complex and time-consuming robot programming with a modular, easily configurable GUI tool. By entering parameters and sizes of the working environment, the robot completely independently coordinates the processes for gripping or depositing parts and simplifies the description of the application workflow. In combination with powerful simulation tools, the ready-to-use Mikado controllers reduce the commissioning time of the Robot Guidance application to a minimum.

### **Modular software functions**

Many work steps such as self-calibration, image acquisition, collision check, path calculation and path planning and all functions for part recognition or recognition of the working environment in bin picking applications are already integrated and can be easily dragged and dropped into the desired workflow.

### **Universal application**

Mikado ARC simplifies the handling with required work equipment for the user level. Thanks to a hardware abstraction, the once defined workflow works with different robot models. The most suitable robot can be used without additional effort.

## Integrated Robotics Specialist knowledge

Mikado ARC already gets along with many robot controllers from leading manufacturers such as Mitsubishi, KUKA, ABB and Fanuc. The robot functionalities are generalized for the user level, which means that the workflow for the different robot models always remains identical. Differences in e.g. "payload", "accuracy", "speed" or "interfaces" are only included in a workflow as parameters.

We are happy to advise you and support you in the design and implementation of complex robot guidance solutions.



# ENSENSO

# MIKADO