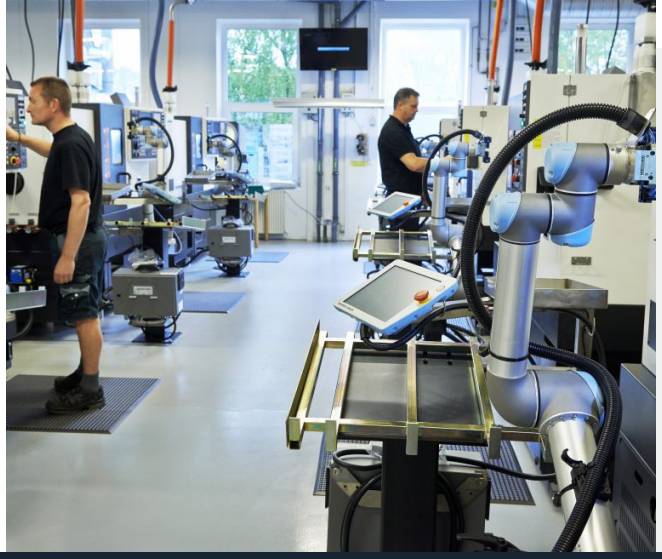


ENERGID

Actin® for Universal Robots Integration

Open New Possibilities with the Actin for UR Integration

ACTIN ADVANTAGES

- Online programming and control
- Coordinated control of additional external axes
- External TCP support
- Singularity avoidance
- IO and sensor support
- Environment and self collision avoidance
- Coordinated control of multiple arms
- Tool paths from CAD
- Collision-free path planning
- Work cell simulation

BUILT FOR COLLABORATION

- Builds on top of UR safety
- Rapid design validation
- Design robot tasks graphically from the comfort of your desk
- Configure avoidance zones
- Supports safety assessments
- Improved ROI and reduced integration effort

Using Actin for Your UR Integration

Actin is a collection of software tools and APIs that enable UR+ partners and integrators to develop advanced applications. Unlike offline programming tools that create URScript to be downloaded to the controller, Actin controls UR robots directly. The Actin application provides graphical tools for live controlling and programming of robots through an external PC, and a feature-rich API for developing advanced URCaps or third-party applications.

With Actin, you can reduce integration effort while enabling a new set of capabilities for your UR robots. Here is how it works:

With Actin, your UR robot will be able to follow tool paths you define in CAD, avoid self collisions, singularities and objects in the workspace. Need to coordinate multiple robots or add additional axes to the arm to extend the workspace? Actin was built for this. Actin's real-time collision avoidance, coordinated control of high DOF manipulators, and multi-arm tasking framework will open up new applications for your UR robots.

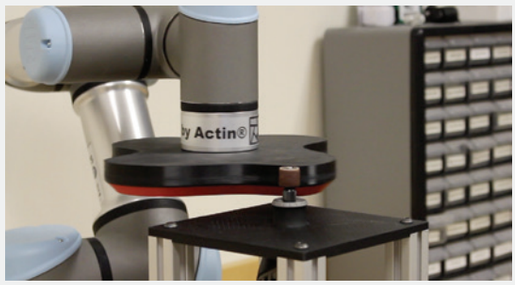
During the integration process, Actin empowers you to rapidly iterate through work cell designs in simulation to evaluate placement of components, tooling, and robots before buying or setting up hardware. Scripting complex tasks is easy in Actin through an intuitive graphical programming interface.

How does it work?

With Actin, you can reduce integration effort while enabling a new set of capabilities for your UR robots. Here is how it works:

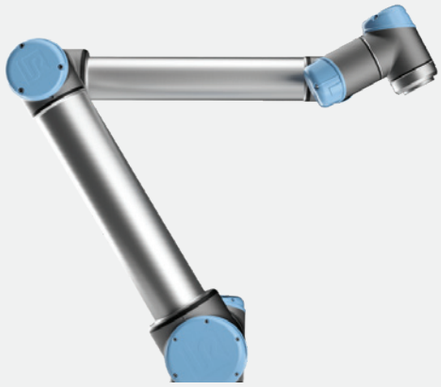
1 - Design

Using the Actin Manipulation Director interface, you drag and drop building blocks to create your task script. These building blocks include configurable waypoint sequences, custom tool paths from CAD, IO actions, and sensor feedback just to name a few. New building blocks can be added at any time.



2 - Refine

Test your scripts in simulation and iterate on robot selection and workcell layout. Actin scripts are robot agnostic and motions are relative to objects in the workspace. Need to move the part, try a different arm or add an extra axis? No problem, Actin will dynamically update the motion sequences without requiring you to edit the task script.



3 - Deploy

Once the workspace, part placement, and robot configuration are set, it is time to run with hardware. You have two deployment options:

1. Online control to unlock full capabilities of Actin
2. Offline control using URScript generation.

Both options work seamlessly with the UR control box and retain all UR safety features.

About Energid

Established in 2001 and headquartered in Cambridge, Massachusetts, United States, Energid develops advanced real-time motion control software for robotics. Energid's general robot control and tasking framework, Actin®, is built to meet the rigorous requirements of industrial, commercial, collaborative, and consumer robotic systems. Energid licenses Actin as a cross-platform software toolkit and provides integration services to help its customers get to market quickly.

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