YASKAWA
PARTNER SUPPORT
Shared Integration Experience

This document captures ideas, experiences, and informal recommendations from the Yaskawa Partner Support team. It is meant to augment – not supersede manuals or documentation from motoman.com. Please contact the Partner Support team at partnersupport@motoman.com for updates or clarification.

Using the MotoSim Reach Tool

Introduction

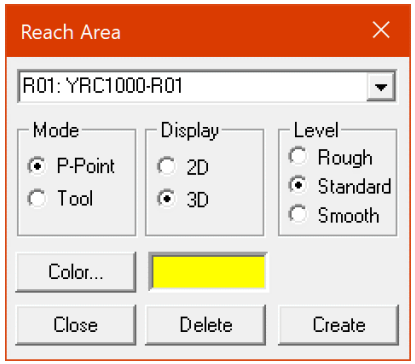
The MotoSim TCP Reach tool is useful for quickly displaying if a robot can reach all needed locations. It either generates a 2D profile or a 3D "Bubble", showing the reach.

The Reach Tool 

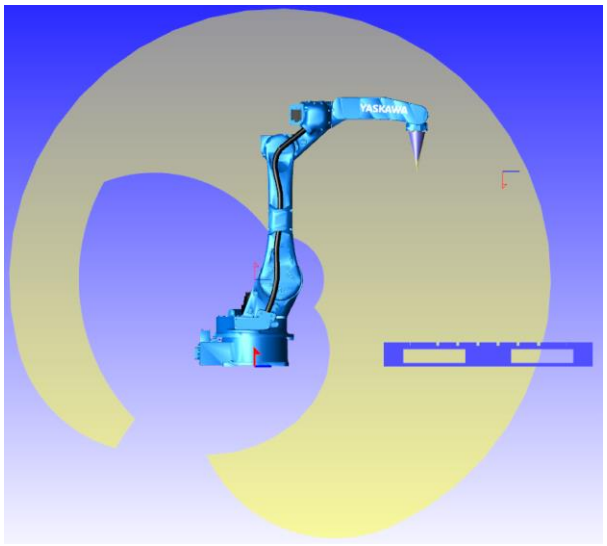
Can be found on the CONTROLLER Tab. It can be either based off the robot's wrist (the P point) or the user-defined Tool Center Point (TCP) location.

TCP Reach Tips

1. Select P-Point (the link between the R and B axis) or Tool
2. 2D or 3D
3. Level of detail (Rough, Standard, Smooth)
4. Select a color
5. Select OK



2D Reach Envelope



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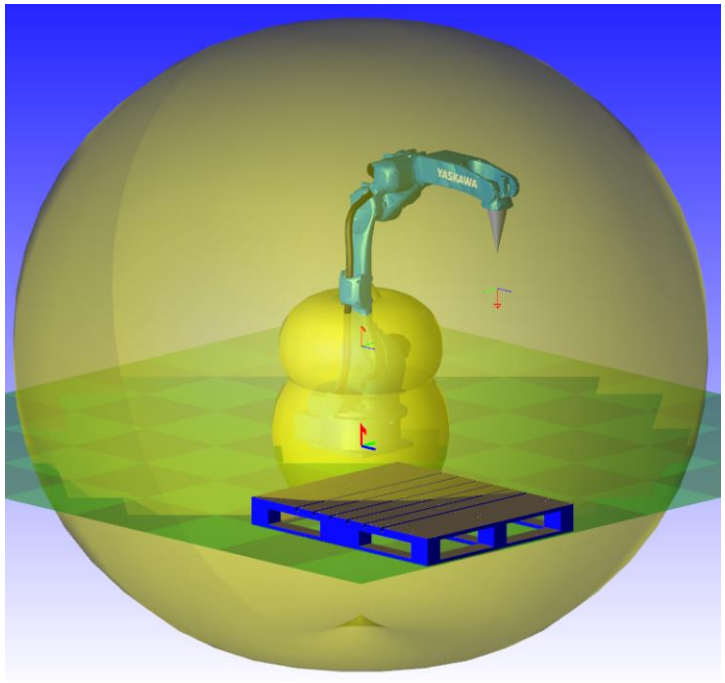
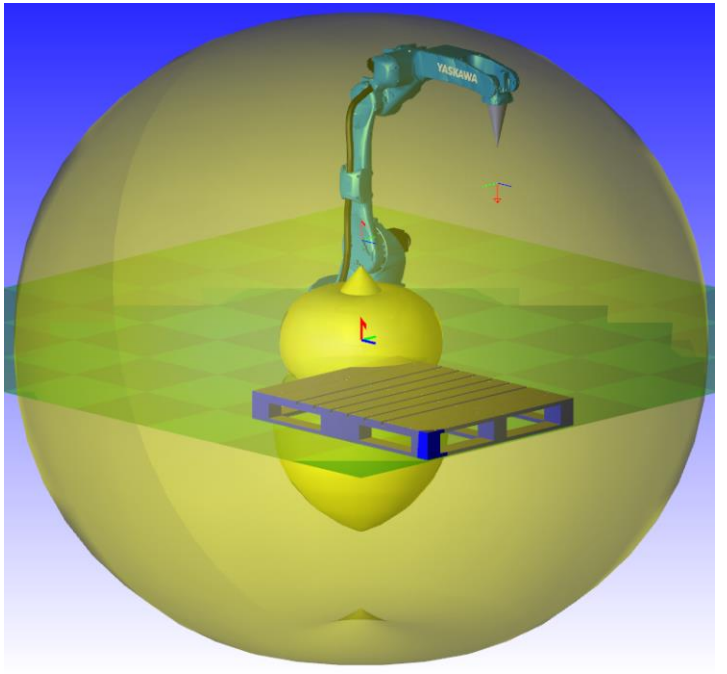
3D Reach Envelope (P-Point)



The envelope is based on the P-Point, the link between the R and B axis.

Note how the envelope only partially covers the pallet

3D Reach Envelope (Tool)



Because the tool TCP is moved, the envelope is adjusted.

Note how the envelope almost covers the pallet