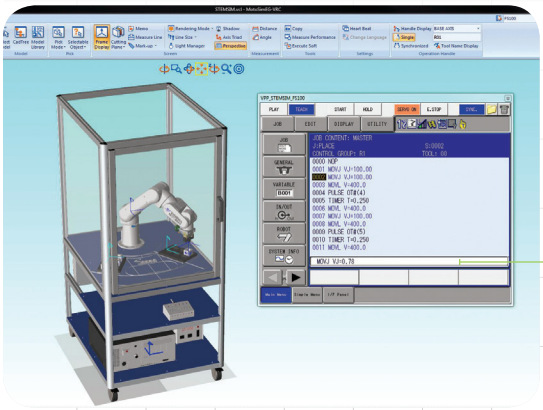
YASKAWA

POWERFUL SIMULATION SOFTWARE
FOR STUDENTS



MotoSim EG-VRC*

for Education

OFFLINE PROGRAMMING | 3D SIMULATION | VIRTUAL ROBOT CONTROL

KEY BENEFITS

Learn programming and modeling of industrial robots in a safe, virtual environment

Learn robot capabilities that integrate with industry-leading technologies

Share programming code or upload to a Motoman® robot

Aligned to Yaskawa Academy web-based classroom curriculum (FS100 Operator's Training)

SYSTEM REQUIREMENTS

Recommended	Minimum
Windows® 7 (64 bit)	Windows® 7 (32 bit)
Intel Core i5 CPU	Intel Core 2 Duo CPU
4-8 GB RAM	2 GB RAM
3D Pro graphics card	3D graphics card
4 GB of free hard drive space	

CONTROLLERS

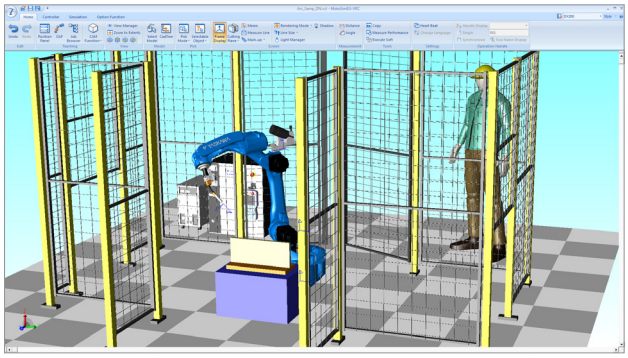
☑ YRC1000 ☑ DX200 ☑ DX100

☑ FS100 ☑ NX100

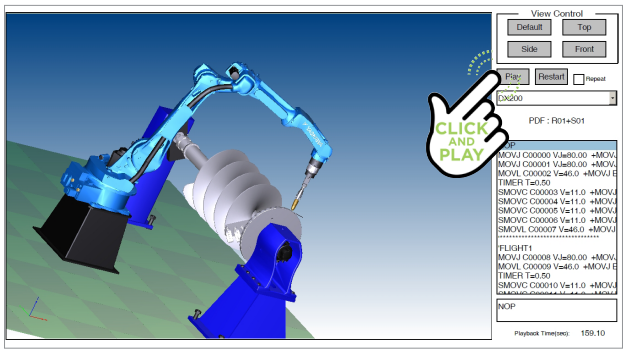
- Comprehensive educational software package for industrial robotic offline programming and virtual 3D simulation of robot cells.
- Performs collision detection, reach analysis and cycle time calculations.
- Supports multiple process applications including arc and spot welding, cutting, handling, painting and sealing.
- This virtual robot controller displays the actual programming pendant interface; virtual programming steps are identical to those used in the real world.
- Supports standard INFORM III programming language and completely simulates the controller software in the PC environment, including system configuration functions, condition file editing and FSU configuration.
- Easy-to-create 3D PDF and AVI files to view and share cell layouts or program operation. Viewing angle and start/stop playback of the robot program can be modified within the 3D PDF file.
- Offline programming and testing reduces programming time and increases production uptime:
  - Program new parts prior to production
  - Modify existing robot programs to increase efficiency and reduce cycle time
  - Detailed path calculation function plots robot's trajectory to simplify program verification
  - Programs created in MotoSim EG-VRC for Education can be downloaded to the robot controller
- Offline cell design can minimize fixturing errors and reduce robot installation time:
  - Add markups and comments
  - Accurately measure distances
  - Create permanent measurement lines
- Utilize Yaskawa Motoman's model library or your own. Frequently used models can be dragged/dropped into a cell.

* MotoSim Enhanced Graphics - Virtual Robot Controller

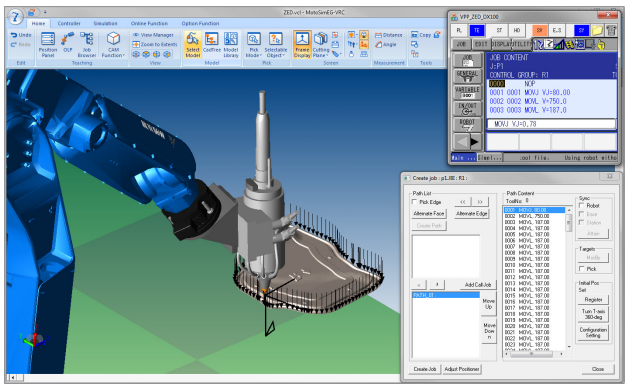
MotoSim EG-VRC for Education



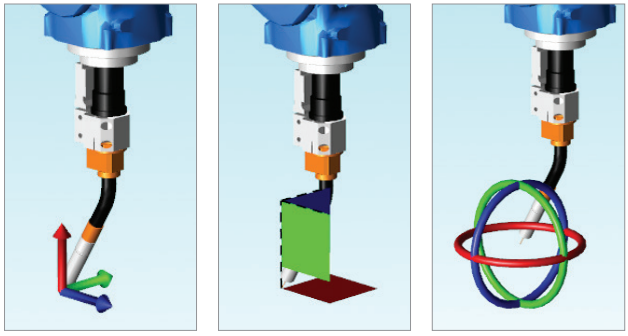
CELL LAYOUT AND DESIGN



DOWNLOAD 3D PDF:
http://www.motoman.com/motosim-3d/



PATH GENERATION FROM 3D CAD MODEL (CAM)



TCP DRAG FUNCTION

CAPABILITIES

- Supports multi-robot and multi-controller simulation
- Robot(s) and external axes control, including independent/coordinated motion and twin synchronous motion functions
- Supports the following CAD file formats:
  - MotoSimEG data (.mdl)
  - HoopsMetafile (.hmf)
  - HoopsStreamfile (.hsf)
  - ACIS (.sat)
  - IGES (.igs, .iges)
  - STEP (.stp, .step)
  - Parasolid (.x_t, .x_b)
  - DXF (.dxf)
  - Renderware (.rwx)
  - Standard Triangulated Language (.stl)
  - VRML (.wrl)
  - 3D Model (.3ds)
  - PLY (.ply)
- Supports standard and optional controller functions such as Macro Command and Relative Job
- Component-level collision detection
- User-definable views
- Automatic robot path generation based on 3D CAD model information. Customizable to include application-specific instructions. Motion type, velocity, number of positions generated and work angle are adjustable. Generate numerous program positions in seconds!
- Modify robot position and manipulate each robot axis by dragging with the mouse. User can also position the robot in Cartesian mode.
- Accurately align models to one another:
  - Process tool or end effector to robot
  - Fixture to positioner
  - Part to fixture

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