YASKAWA

MOTOSIM EG-VRC* FOR EDUCATION

POWERFUL SIMULATION SOFTWARE FOR STUDENTS

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 (YRC controller curriculum)

Single network key allows for 20 workstation seats - no reoccurring licensing fees
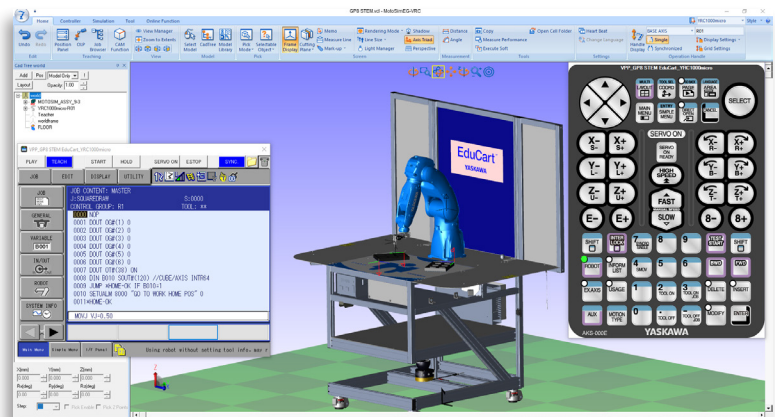
COMPATIBILITY

YRC1000 controller

YRC1000micro controller

FS100 controller

DX200 controller

DX100 controller

NX100 controller

- 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.

- By utilizing the existing school network login procedures, a single network key prevents accidental individual software key loss. This network key is permanent license and does not require reoccurring fees. The network key is capable of 20 seats or work station IP addresses.

* MotoSim Enhanced Graphics - Virtual Robot Controller

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
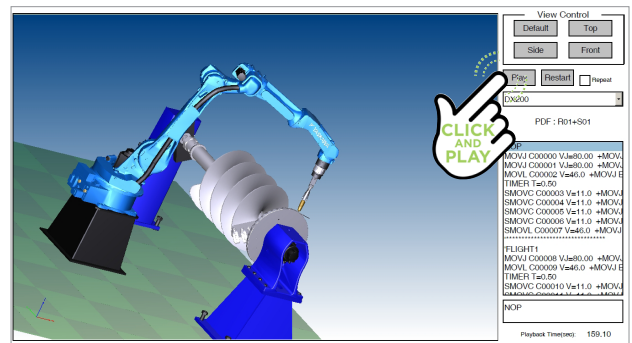 - Part to fixture

SYSTEM REQUIREMENTS

- Windows® 10 (64bit), Windows 11 (64bit)

- Intel® Core™ i7 CPU

- 16 GB RAM

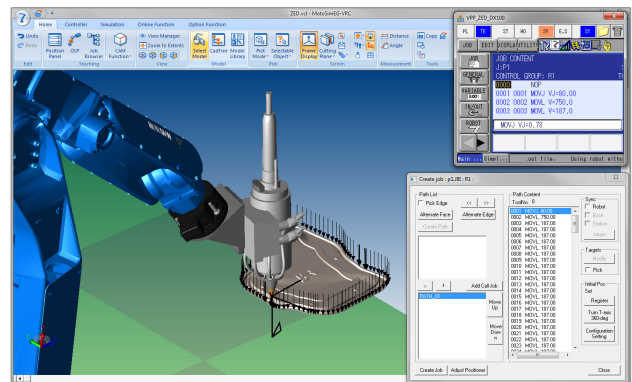- NVIDIA® graphics card (Quadro® series, etc.)

- 500 GB hard drive

NOTE: Scholastic institutions are required to provide a Windows-based PC workstation including monitor, keyboard and mouse.
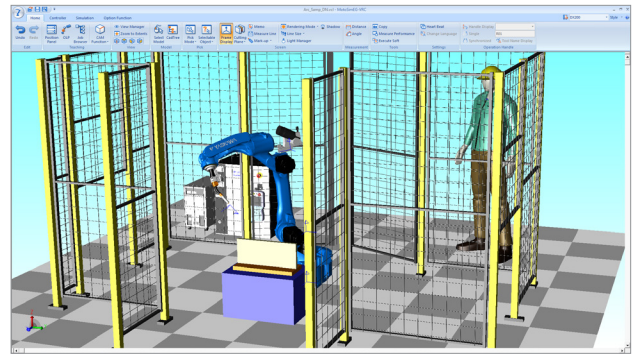
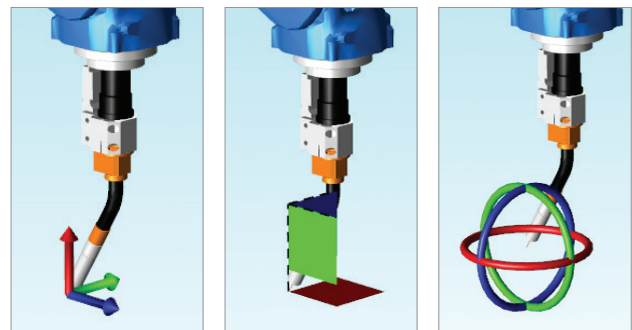Cell layout and design

3D pdf files can be created to improve collaboration

Path generation from 3D CAD model (CAM)

TCP drag function

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