WebGL Visualization Tools And GPUs For Marketing Of Robotics And Automation Products

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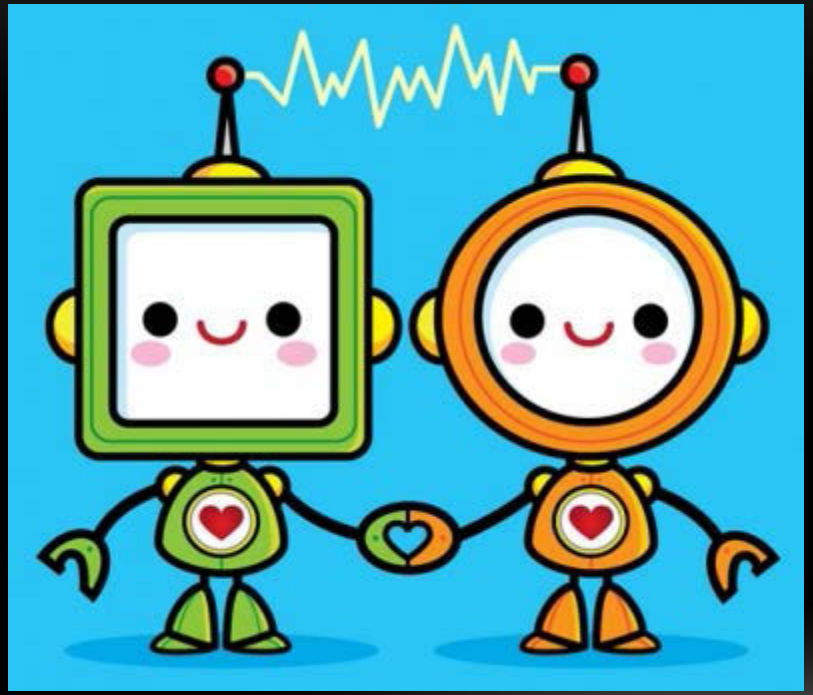
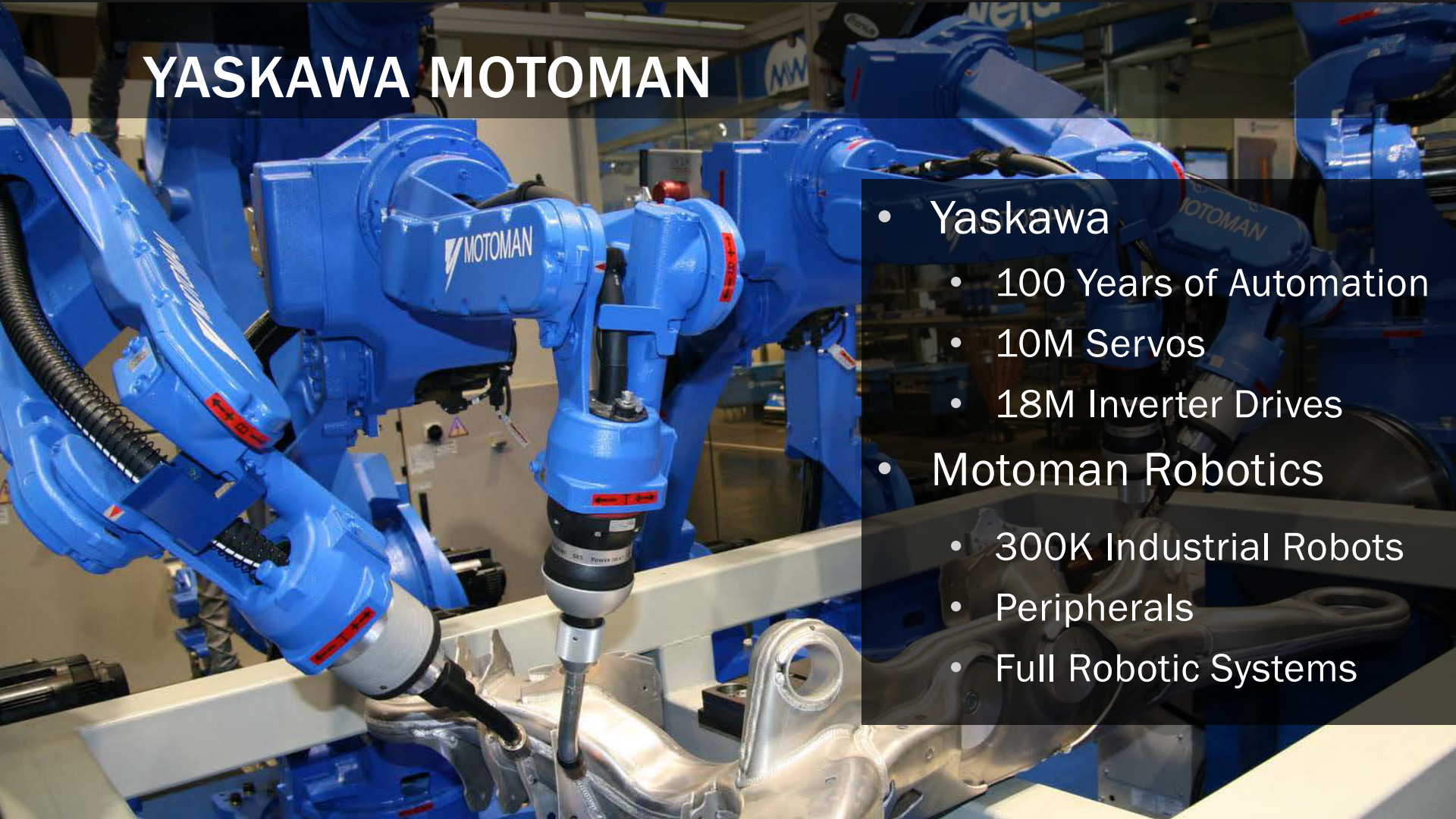
“BOT” MEETS “GL”…



- Our First WebGL Project
- Tools Used
- Results
- Lessons Learned

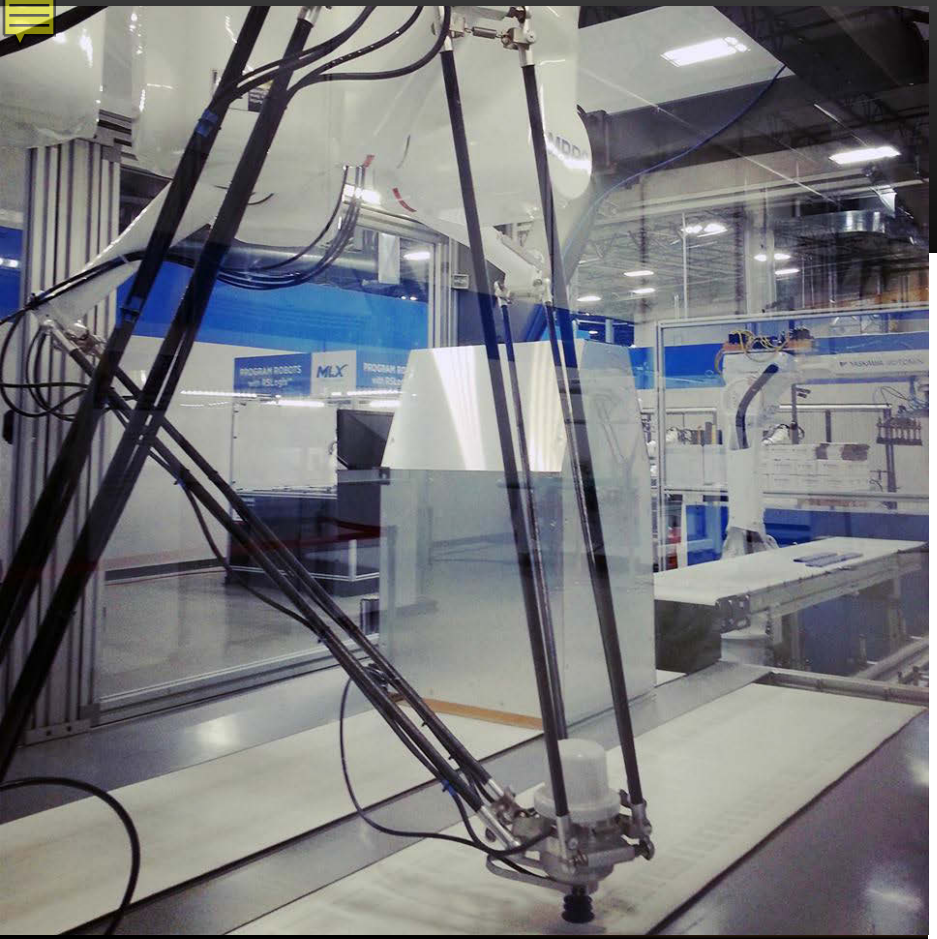
YASKAWA MOTOMAN



- Yaskawa
  - 100 Years of Automation
  - 10M Servos
  - 18M Inverter Drives
- Motoman Robotics
  - 300K Industrial Robots
  - Peripherals
  - Full Robotic Systems

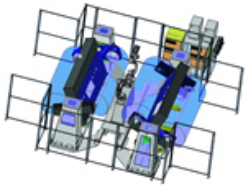
MARKETING CHALLENGES

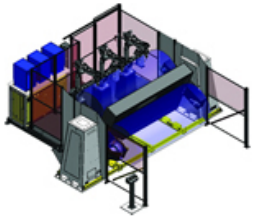
Packaging Industry

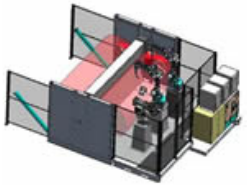


CUSTOMER EXPERIENCE

ArcWorld IV-6000 Series





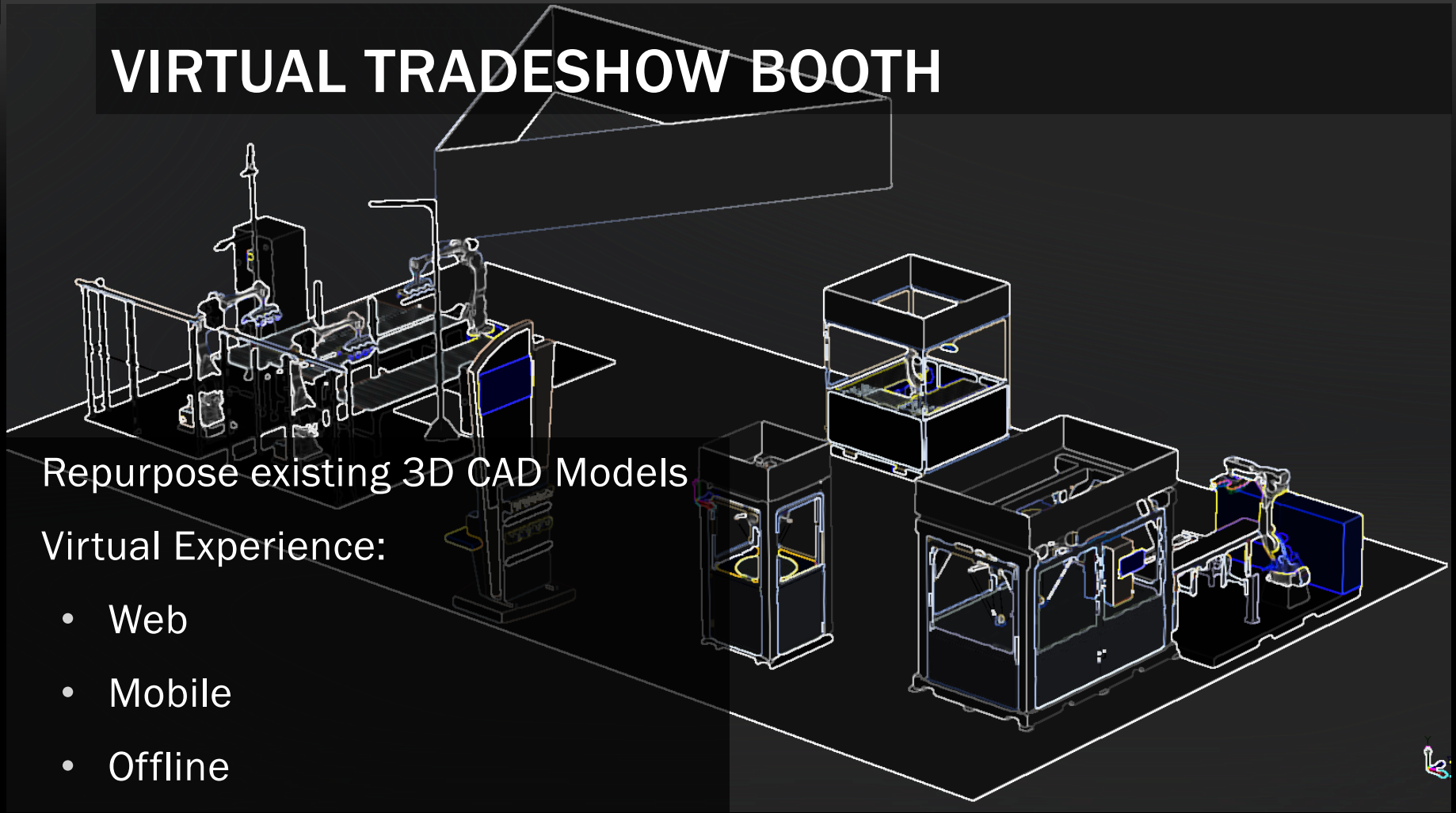


Trunnion positioner has servo motors on each station and main drive for rapid station indexing. Workcell is available in ultra space saving "slim-line" design or extra heavy duty model with 1200 kg payload. Workcell can utilize up to 4 robots for HyperProductivity®.

- ArcWorld IV-6200XHD
- ArcWorld IV-6300XHD
- ArcWorld IV-6000SL/SLHD
- ArcWorld IV-6200SL/SLHD
- ArcWorld IV-6300SL/SLHD

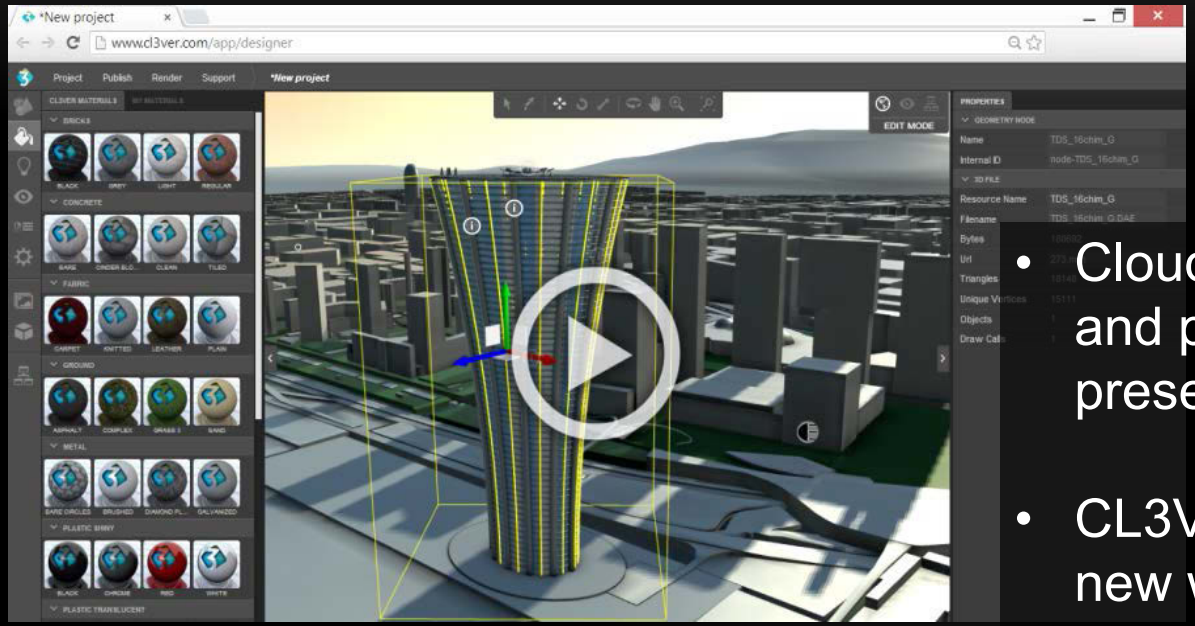
Real Life vs. Web

VIRTUAL TRADESHOW BOOTH



- Repurpose existing 3D CAD Models
- Virtual Experience:
  - Web
  - Mobile
  - Offline

TIME TO GET CL3VER



- Cloud based platform to create and publish interactive 3D presentations.
- CL3VER Presentations offer a new way to explore design projects or products from any angle at any time – any where.

DEVICE AGNOSTIC

Why Cloud and HTML5?

The use of Cloud computing and HTML5 allows users to publish spectacular real time content to any device.

Since the content is in native web, interactivity and distribution is as limitless as the web itself, allowing for seamless integration with social media and 3rd party systems.

All interactivity is measurable and allows for efficient analytics.

NOT PICKY ABOUT PLATFORMS

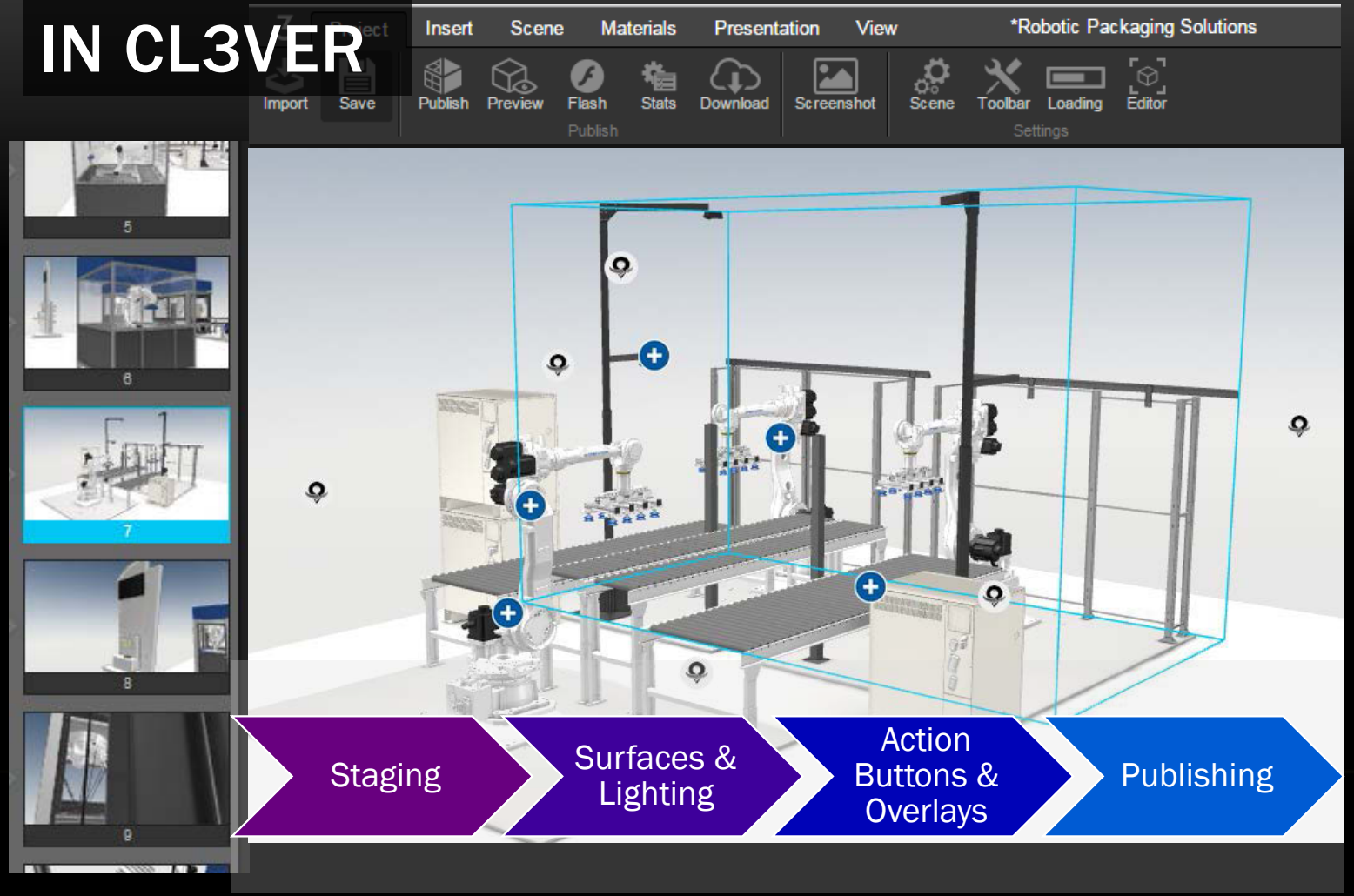
HOW THE SAUSAGE IS MADE

Storyboard

Drawing Prep

Pre-Rendering

IN CL3VER


Insert
Scene
Materials
Presentation
View
*Robotic Packaging Solutions
Import
Save
Publish
Preview
Flash
Stats
Download
Publish
Screenshot
Scene
Toolbar
Loading
Editor
Settings
5
6
7
8
9
Staging
Surfaces & Lighting
Action Buttons & Overlays
Publishing


YASKAWA
MOTOMAN ROBOTICS
Primary Packaging
High-Speed Picking
Case Packing
Palletization
Drives & Motion
Explore Scene
3D TOUR
YASKAWA
MOTOMAN ROBOTICS

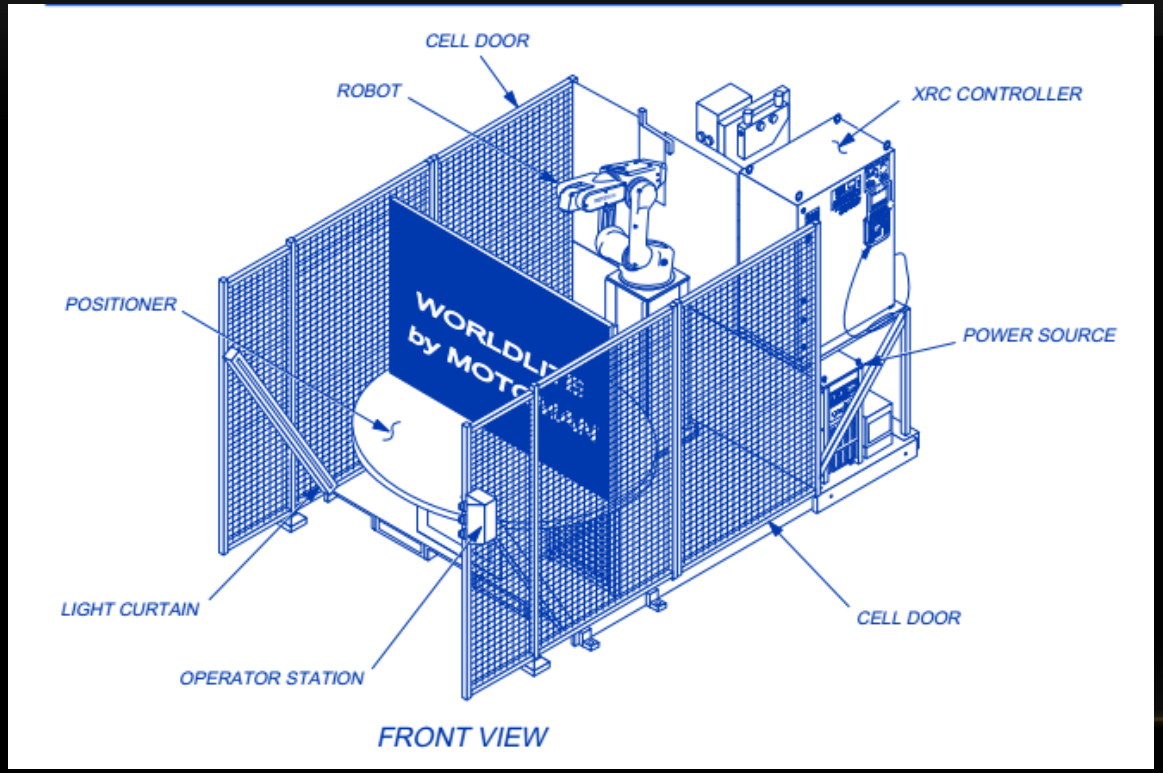
RESULTS

- Booth Leads Nearly Doubled From 2013 Show
- Web Visits Continue:
  - 3X average time on site
  - 2X more pages/session
  - 50% Fewer Bounces
  - **5X higher conversion rates**

LESSONS LEARNED

- User Experience Trumps Realism (if you can't have both)
- Keep it Light, Keep it Simple
- Establish 3D Asset Standards
- Optimize Internal Workflow
- Designate Resources

FUTURE PROJECTS?



- Interactive User Manuals
- Concept Drawings for Customer Proposals
- Robotic Motion Simulation
- Offline/Remote Robot Programming

THANK YOU!

- Contact Me
  - steve.rueckhaus@motoman.com
  - LinkedIn: /in/steverueckhaus
- Feedback
  - Please complete the Presenter Evaluation sent to you by email or through the GTC Mobile App. Your feedback is important!