Building Webapps to Help You Build a Jeep

Traditional Manufacturing

- Push
- Estimate output
- Large inventory
- Never stop the line

Lean Manufacturing

- Pull
- One piece flow
- Takt (cycle) time
- Zero defects

Build Sheets (broadcasts)

- Grid of parts
- 1 sheet per vehicle
- Old: printed format
- New: webapp on tablets
  - Interactive
  - Cheaper

Sequenced pull (Sequencing)

- Single stations
- Only a few part choices
- Every vehicle must get this type of part
- Old: printed list of same part
- New: webapp on tablets
  - Interactive
  - Cheaper

Kanban Sequenced pull (Kitting)

- Kit of parts per vehicle
- Replace parts on production line with kit between vehicles
- Lean, pull, one piece, normalized cycle time
- New: Wireless picklights
- Native C# server/client

References

"The Toyota Way Fieldbook." Liker and Meier (2005).

"Megafactories S05E06 Ford F150"
https://youtu.be/khbb1vBz_U0

"Megafactories S04E01 Dodge Challenger"
https://youtu.be/TWTLrx_Cr98

"Four Principles Lean Management"
https://youtu.be/wfsRAZUnonI

"Sonic Production at Lake Orion"
https://youtu.be/ZoUxkvWin6A

"Digital Picking System By nbtprofessional"
https://youtu.be/o7kM4k86f8U

"Chrysler Group LLC Belvidere Assembly Plant"
https://youtu.be/JRU8J-BxTZY

You can take a tour of the F150 plant in Dearborn, MI. See www.thehenryford.org and click "Ford Rouge Factory Tour."

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