

MAKING SIMULATION MODELING ACCESSIBLE

Braden Butkovich & Dominic Finazzo





AGENDA

- Our story
- Our approach toward modeling
- Why we love AnyLogic
- Mayco International simulation



OUR STORY

- Brady and Dominic
- Our introduction to AnyLogic
- Founded in 2023
- Non-traditional modelers



OUR APPROACH TOWARD MODELING

- Imagine going home at night and playing a video game of your business:
 - What will happen if I try X?
 - How will these decisions affect my company?
- We think modeling and simulation is significantly under-utilized in industry



WHY WE LOVE ANYLOGIC

- User friendliness
- The speed at which the software can be learned
- Multi-Method Modeling
- AnyLogic support
- Community support



MAYCO INTERNATIONAL

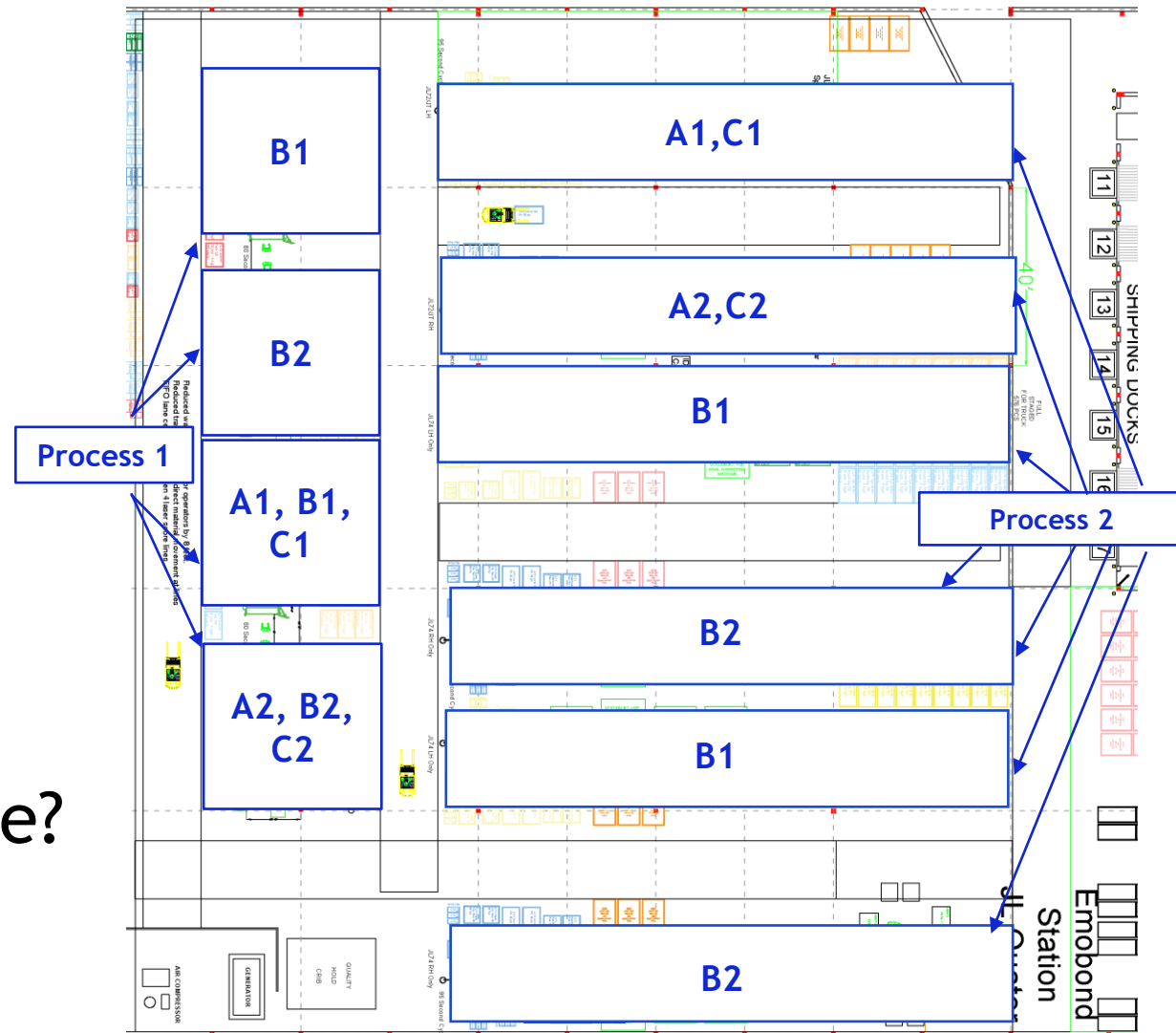



MAYCO
INTERNATIONAL

- Who is Mayco International
 - Tier I automotive supplier
 - Headquartered in Sterling Heights, Michigan
- Why did Mayco decide to use simulation to address a business problem?
 - Multivariate problem that Excel just couldn't model

MAYCO - DEFINING THE PROBLEM

- Annual volume at 1 year
 - A:240,000
 - B:50,000
 - C:100,000
- Process 1 schedule: 2/10/5
- Process 2 schedule: 3/8/6
- How can I make sure my equipment is being utilized in the most efficient way possible?





MAYCO - Initial Steps

- Defined the requirements for the simulation model
- Data acquisition:
 - What data needs to be included
 - What data needs to be excluded
- Initial model was delivered

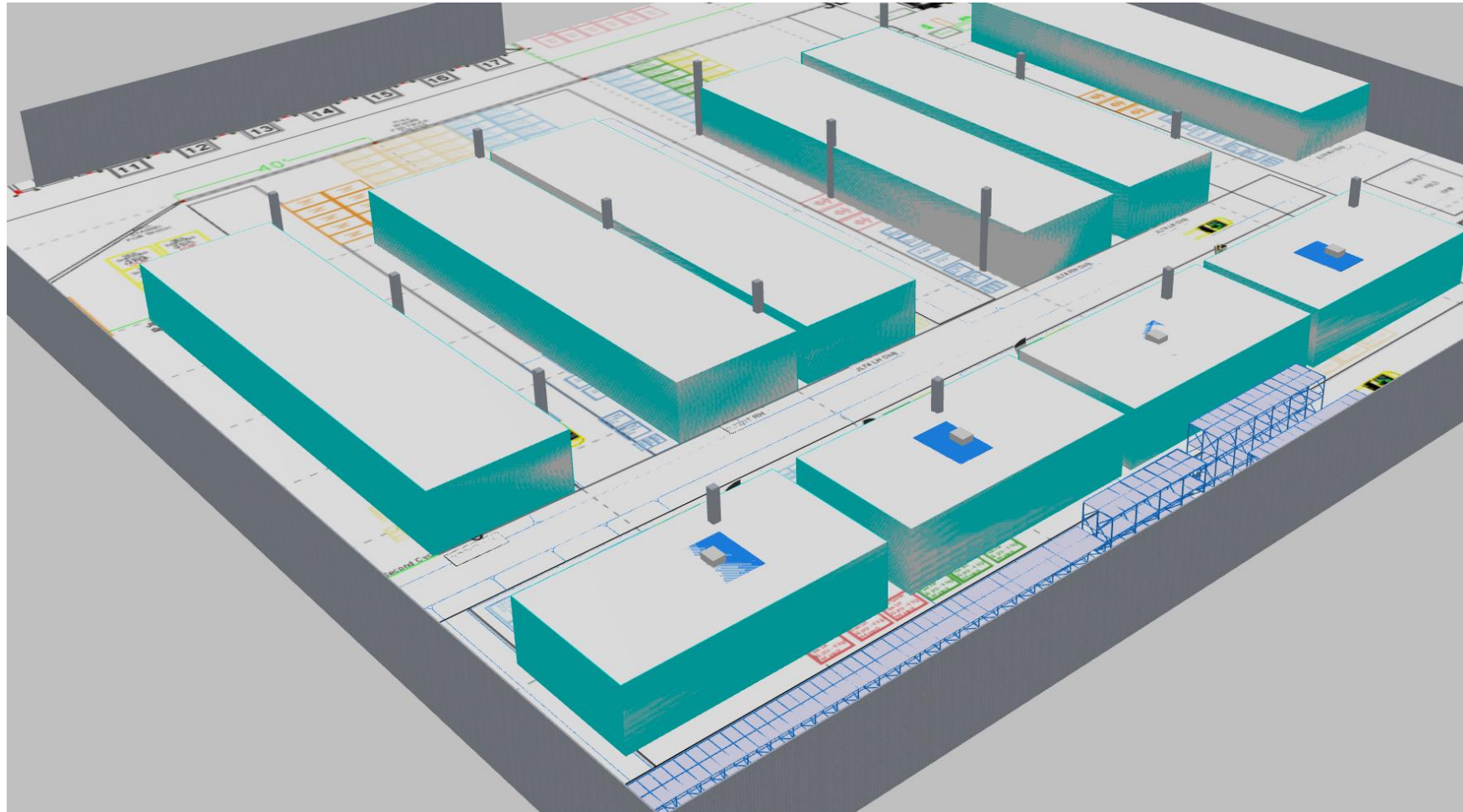


MAYCO - CD/CI Environment

- After the initial model, several changes were requested:
 - Add scrap rates
 - Add downtime probabilities
 - Add inventory monitoring
- Changes were implemented and the new version was delivered
- Model accuracy was verified with support from Mayco



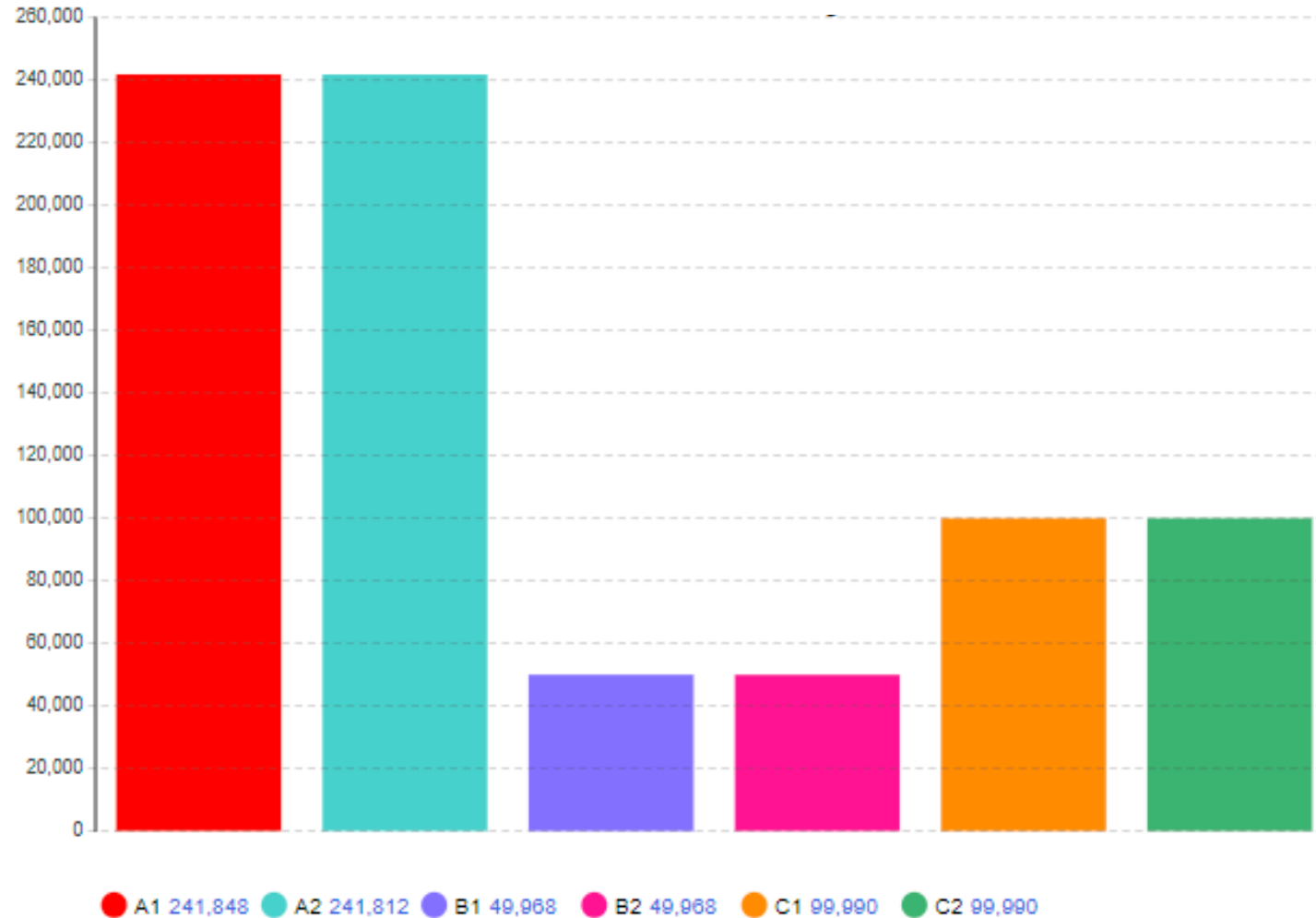
MAYCO - SIMULATION MODEL





MAYCO - SIMULATION MODEL

Process 2 Production





MAYCO - THE OUTCOME

- Currently using our created schedule
- Verified the feasibility of the designed manufacturing process
 - Lines can meet customer required volumes
- Displayed the fluctuation of WIP Inventory
- Proof of concept in place for customer

Questions?



Thank You!

