Team Omniverse

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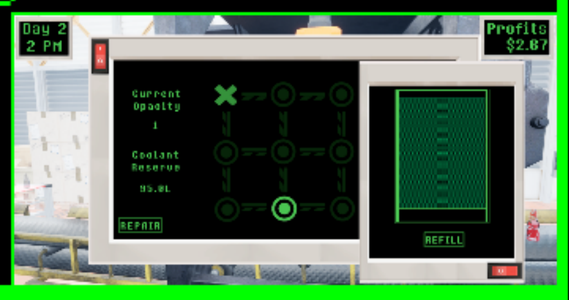
ABOUT THE PROJECT

Omniglass

Omniglass is a single-player tycoon game that was created to evaluate the potential of Unreal Engine 5 and Nvidia Omniverse. The goal was to merge the concept of a realistic factory simulation with an inclusive management game. We aimed to produce realistic visuals that would enhance the realism through combination with Nvidia Omniverse to further improve graphical output.

GAMEPLAY

The player assumes the role of a manager at a glass bottle manufacturing company. The player must interact with the machinery by approaching the machine, which activates an interface with minigames for maintaining them and repairing them in case of a malunction occurring. Machines must be constantly kept operational to maximize the day's total profit and reach each day's point quota.



OMNIVERSE

Nvidia Omniverse allows us to work simultaneously together on supported software such as 3ds max, Unreal Engine 5, and Omniverse Create. It can not only interconnect projects using .usdz iles for different users, but is also loaded with useful real-time rendering technology + libraries of models and materials. With this, we can adjust textures and lighting effects of models before mporting them to Unreal.

CONCLUSIONS

Nvidia Omniverse + Unreal Engine have shown great promise when used together for the purposes of graphical enhancement and making editing models and materials quicker and more convenient.

Although we weren't able to fully simulate a 1:1 physically realistic factory space due to time constraints and Omniverse limitations, we decided to put a higher focus on interactivity and engaging gameplay and were still pleased by the game's overall performance.

Start

10:00 AM

ASSETS USED:

UNREAL ENGINE 5 MARKET PLACE:
FACTORY ENVIRONMENT COLLECTION

Ira A. Fulton Schools of Engineering
Arizona State University