PackNick (VR)

Packaging Training in Virtual Reality

Why serious gaming and virtual reality (VR)?

Serious gaming refers to training applications that contain playful elements that support sustainable, efficient and motivating learning. Studies show that increased immersion in the digital world sustainably increases the learning effect. With the help of virtual reality glasses, the real world is completely hidden and the user is fully immersed in the virtual world. This ensures the best possible immersion and thus improved, sustainable training.

What is PackNick?

PackNick is a VR-based training for learning the packaging process. Independent of time or location restrictions, the process can be trained supported by feedback. The playful approach using a leaderboard motivates the players to improve themselves. In addition, the training can be adapted to different processes or workplaces.

Why PackNick and VR?

In the case of processes in packaging, one obstacle can be the low motivation of employees. In addition, there is a high cost for training runs due to the high employee turnover. Here, serious games such as PackNick can have positive effects, as they have a positive impact on learning behavior and can also shorten the training period.

However, most serious games are played on the screen with mouse and keyboard. The implementation in VR, on the other hand, can achieve further advantages. The learning content can be experienced more intuitively, as the controls are significantly closer to real movement: game players are in the virtual space (visually) and only need a few buttons on the hand controllers to interact with the virtual world. They also have to perform the actual movements towards certain objects in real terms, instead of pressing a button to reach an object.

The training effect is increased by this direct training of real movement and the higher immersion through VR causes a sensation of real experience of the situation.

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PackNick's structure

The training process is a standardized and simplified packaging process. It is roughly composed of the following steps.

- Start the process via the screen
- Select the correct carton based on information on the screen and place it on the table
- Remove the goods to be packed from a driverless transport system (DTS), scan them and place them in the carton (varies depending on the process)
- Release the DTS for further operations
- Select the correct filling material and place it in the carton (if required in the process)
- Close the carton and then tape it shut
- Remove the shipping label from the printer and apply it to the carton
- Apply hazardous material labels, if applicable (for hazardous goods and hazardous material special processes)
- Place the carton on the pallet for transportation away
- End the process on the screen.

The entire process is available in both German and English. Training announcements available in multiple languages eliminate the need for a trainer for each workstation: one trainer can effortlessly supervise multiple players and respond to queries regarding ambiguities in operation. User management, user-based achievements (badges) and a leaderboard are supported.

Overall, the program serves to demonstrate the potential of VR as well as to introduce inexperienced employees to the topics of workplace optimization and packaging process training.

Purchase and license model

The standard software is licensed on an annual basis. In addition, smaller adjustments and extensive individual developments can be ordered.

Further information

Fraunhofer IML:
www.iml.fraunhofer.de/en.html

PackNick VR
www.iml.fraunhofer.de/xr

We look forward to working with you!

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