



serious:labs®

Virtual Reality: Advanced Training for the Digital Age

Europlatform 2019: Nice, France

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AGENDA

- **PAL+ Update**
 - History and Purpose of PAL+
 - Challenges
 - Result
 - A Better Way: Pal+ in VR
 - Current Status
- **PAL 3.a. & 3.b. Recertification on VR MEWP Sim**
- **Custom Environments**
- **What's Next?**



PAL+ ADVANCED OPERATOR QUALIFICATION



Advanced Practical Training

History and Purpose of PAL+

BuildUK requested advanced practical training for MEWP operators working in high hazard environments.

IPAF members and industry experts created the IPAF Pal+ course to better prepare operators for the work site.





Advanced Practical Training

Challenges: PAL+ exceeded the standards *but...*

To run the PAL+ course at a training centre or rental depot you need:

- 4 highly utilised machines pulled from the rental fleet
- A lengthy and costly list for equipment setup
- Outdoor space with stable weather conditions (no wind, snow, rain)
- Significantly more space than a conventional course (enough to disrupt rental operations)
- 3 additional hours for the trainer to prep, in addition to an 8 hour day.
- The PAL+ course had to be delivered at a training centre which meets the requirements (on the job site was not an option)



Advanced Practical Training

Result: Very few people have taken the PAL+ Course

- PAL+ was too complicated and expensive to offer
- Was not pushed by the training members
- And forgotten or ignored by the contractors



Advanced Practical Training

PAL+ on a VR MEWP Simulator:

- Can be delivered at customer's job site
- Significant reduction in required space 2m x 2m and set-up time
- Avoid tying up expensive equipment that should be on hire
- Weather is no longer a factor
- More effective communication with the trainer beside the delegate
- Practice time, practical test and test review can be completed in 45 minutes per attendee
- Testing is objective, comprehensive and consistent
- New Revenue Stream





MEWP [3a 3b] PAL Recertification

The future of training

MEWP [3a 3b] PAL Recertification

VR MEWP Simulator offers Operator Recertification

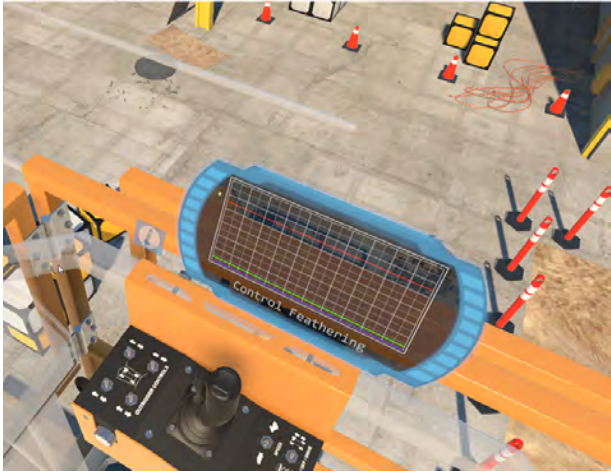
United Academy®
powered by United Rentals

United Academy will soon recognize operator recertification using the VR MEWP Simulator.



IPAF will soon recognize operator recertification using the VR MEWP Simulator.





MEWP [3a 3b] PAL Recertification

The future of training...

- Almost 800,000 PAL Cards issued with average of 160,000 renewing each year
- IPAF can alert card holder of impending renewal
- Card holder can book time on a VR MEWP Sim at a Training Center at their convenience OR
- Can be conducted at job site for group recertifications
- No need to retake entire course
- New Revenue Stream for Training Center





Airline Operations and Curved Surfaces

New Bespoke Environments

- 23,600 aircraft globally
- 259,000 aircraft engineers that need to be trained to work at height near aircraft
- Very high risk of damage to aircraft
- Damage and incidents very expensive
- 1 VR MEWP Sim required for 240 engineers
- 1000+ VR MEWP Sims required
- Airline industry expected to double in size by 2030

COMING Q4 2019



INDUSTRY CONSULTATION

What's Next?

United Academy and Serious Labs are very excited to be launching an industry pilot with our materials handling simulators

- Rough Terrain Telehandler
- Counterbalance Forklift



THANK YOU

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