

Welcome to AVOPSIM

AVOPSIM is a cost-effective simulator for ground personnel training in airside vehicle operations. It runs on a modified version of Microsoft Flight Simulator 2024 as the simulation engine, so the budget goes into reproducing your airfield, your vehicles and your procedures accurately, not into building and maintaining a simulation engine.



Terminal and stands on the AVOPSIM digital twin.

Who this knowledge base is for

This documentation is written for the people who run and use AVOPSIM at an airport:

- **Training managers** planning programs, cohorts and stations.
- **Instructors and examiners** who author missions in the Mission Editor and run sessions from the Examiner Console.
- **Trainees** preparing for airside driving and specialist vehicle qualifications.
- **IT and facilities teams** installing and maintaining training stations.

How the documentation is organized

Manual	What it covers
Getting Started	What AVOPSIM is, the four software layers, the training programs and key terminology.

Manual	What it covers
Stations & Hardware	Desk stations, driving stations and full vehicle cabins, with requirements and setup.
Instructor Tools	Missions, the Mission Editor, the Examiner Console, scoring and debriefing.
Training program manuals	One manual per program: airside driver training, ARFF, ground handling, boarding bridge, snow removal, deicing and AI radio communication.
Deployment & Integration	How an airport integration is scoped, modeled, delivered and kept current, with case studies.
FAQ & Support	Common questions and how to reach the AVOPSIM team.

Note

Press Ctrl + K (or ⌘ + K on a Mac) on any page to search every manual. Each article can also be downloaded as a PDF, and each manual is available as a complete PDF.

Why simulate

Airside driver training normally means an instructor, a vehicle out of service and a live apron. AVOPSIM moves the learning, the mistakes and the repetition into a classroom.

1. **Higher first-attempt pass rates.** Trainees learn the layout, signage, hold points and hotspots of their own airfield before the practical exam. Fewer re-tests, less instructor time.
2. **No vehicle out of service.** Route familiarization and procedure practice happen at a training station, not in an operational vehicle on an active apron burning fuel.
3. **Mistakes without consequences.** Runway incursions, missed hold points and incorrect phraseology are made in the simulator, logged, and debriefed.
4. **Less supervision per trainee.** One instructor monitors several stations from the Examiner Console. Missions pass or fail automatically against the constraints you configure.
5. **Low cost of ownership.** Using Microsoft Flight Simulator as the engine keeps development and maintenance cost low.
6. **Train ahead of change.** A new taxiway, a relocated stand or a construction closure is added to the digital twin so drivers learn the new routing before it goes live.