



What Is Simulation?

Simulation solutions provide generic controller and ATC toolsets to provide training that is similar to operational procedures, though is not a replica for any operational system.

What is Emulation?

Emulation solutions entail the replication of operational displays for both Tower and Radar and provide an appropriately high level of fidelity within your Human-Machine Interface.

What is Stimulation?

Stimulation is the most immersive and realistic training and simulation product we can provide, integrating with operational equipment to create the highest level of on-console training.



The comprehensive, modular, ATC Radar Simulation system for training and evaluation



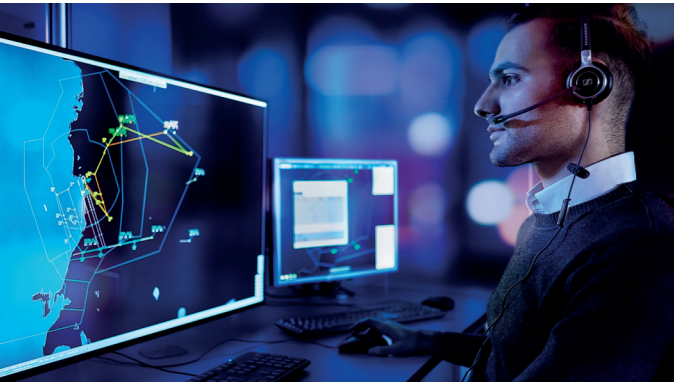
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PART OF
**QUADRANT
GROUP**

The Quadrant Group's mission is to make a meaningful positive difference to aviation safety by providing and enabling the world's best-trained air traffic controllers. We do this by engineering the industry-leading tool for training, development, and operational testing, as well as offering consultancy and support services to assist customers in establishing and running training centres of excellence.

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BEST Radar is one of Micro Nav’s core products within the BEST ATC suite, providing surveillance and procedural capabilities for training in area and approach control.

- **Arrivals Manager**
- **Time-Based Separation Tool**
- **Electronic Flight Progress Strips**
- **Various Displays**
Including FDP & PAR
- **RDP/FDP Alerts**
Including APW, STCA, MSAW, AIW, ACAS, MTCD
- **Tactical Controller Tools**
including Segregated Area Probe, Radar Vector Probe, State Vector Probe, Missed Manoeuvre Probe
- **Datalink Applications**
Including CPDLC, ADS-C, i4D

BEST Radar is a powerful training and evaluation tool to enable all types of training from ab-initio to advanced ATC Training scenarios. Evaluation and development of new procedures, airspace, infrastructure and ATM systems. In addition to being a powerful training tool, we designed BEST Radar to bring customers value and efficiency as they undergo ATM research and development activities, such as evaluating new procedures and processes.

BEST Radar is an evolution of Micro Nav’s first-ever product and the bedrock of our simulator suite. BEST Radar possesses a modular architecture and capability for full-turnkey Air Traffic Control training, with scenarios to train controllers throughout their career. Depending on the unique needs of the customer, BEST Radar can be deployed as part of a Simulation, Emulation, or Stimulation training solution.

Whether you’re looking to increase training success rates, offer simulation as a commercial venture, or require a realistic platform for regulatory approval, BEST Radar removes the need for working in a high-risk live operational environment. BEST Radar’s power is realised through the wealth of features at your disposal, including an advanced data preparation tool, modern FDP functionality, and a high level of customisation within simulation scenarios.

While **BEST Radar** enables customer success as a standalone product, that success is often enhanced when used in conjunction with other products from the BEST ATC Simulator Suite.



Integrated with **BEST Radar, BEST Tower** is our tower training solution, offering complete 2D tower capabilities, and enhanced 3D out-of-the-window environments.



BEST Insights is our new data analysis tool for the evaluation of simulator performance. When used in tandem with BEST Radar, Insights can validate operational benefits when changing airspaces, associated procedures, airways, airfields, etc.

BEST Radar & Rapid Prototyping | Qatar CAA

Ahead of the 2022 FIFA World Cup, Micro Nav partnered with Independent Business Group (IBG) to tackle operational constraints and growing traffic density being experienced by the Qatar CAA.

The Micro Nav proposal for this task included:

- the introduction of new Independent Parallel Runway Operation procedures at Hamad International Airport (OTHH) and Doha International Airport (OTBD)
- revision of SIDs, STARs, and Missed Approach Procedures at OTHH and OTBD
- revision of the ATC Sectorisation to complement new procedures in the proposal

- amendment of the concept of operations to suit revised airspace and procedure designs

To achieve the revisions outlined in the proposal, Micro Nav utilised the BEST Data Preparation program, an essential toolkit within BEST Radar, in a Rapid Prototyping ‘Whiteboard’ capacity.

The Data Preparation program allowed for rapid profile visualisations when revising SIDs and STARs. It was a considered, efficient approach preceding the commitment of designs to a live simulation environment. It also allowed us to superimpose the revised SIDs and STARs for the assessment of potential conflict points.

Next, we evolved airspace structure and associated ATC sectors, adjusting boundaries to optimise traffic flow and making broader sector changes. With the overlay of new SIDs and STARs, lateral and vertical volumes could be amended to ensure effective sectorisation revision.

Increased operational capacity and improved safety benefitted the delivery of our revised airspace structure and associated operational procedures, while validation of airspace design continued uninterrupted.

With the adoption of BEST Radar’s Data Preparation program, the proposal was ready for approval in two weeks.