

Abstract

Embry-Riddle Aeronautical University's (ERAU) Daytona Beach Campus operates as a certificated flight school under 14 Code of Federal Regulations (CFR) Part 141. Additionally, ERAU employs the use of Frasca Level 6 Flight Training Devices (FTD) for each of their flight courses. Scenario based training cross-country lessons are included in each of the private pilot, instrument rating, commercial pilot, and multi-engine additional rating courses. Each FTD is equipped with software that allows a programmable lesson plan to be created and replayed for each student. They allow for voice recognition from the student, "real" radio calls and background chatter, automatic dependent surveillance – broadcast (ADS-B), and visual traffic displays. While the student is flying, they will be presented with a situation that will force them to make a decision. The software will allow the scenario to branch off and allow the student to experience the result of that decision further and will allow multiple branches and decisions to be made, if needed, for the duration of the simulation. This form of decision-based scenario training using this software was created with the goal of training the flight students to the application or correlation level of learning. This paper describes the process that a team of flight instructors and support staff completed to use this software and their experience to create more realistic scenarios and a more immersive flight training experience.