

## Digital Transformation Platform

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**Author Note:** All members of the team are currently seniors pursuing a degree in Industrial and Systems Engineering from the Watson School at Binghamton University. The team is receiving support and guidance from Lockheed Martin and from the team's advisor Dr. Yong Wang. Michael Doyle is the primary contact for any requests related to this paper, and his email is given above.

**Abstract:** The purpose of this project is to take a systems engineering approach to improve Lockheed Martin's Digital Transformation Platform (DTP), a software program hub that manages the tools used to log the progress of previous and current projects. Methodologically, the structure of this project is composed of two phases. In phase one, the team worked in collaboration with an Electrical Engineering and Computer Engineering (EECE) team to generate requirements, use cases, architecture diagrams, and concept of operations for a drone delivery system. In phase two, the team leveraged the various tools installed in DTP for requirement verification and system modeling processes of the drone delivery system. Throughout this process, the team studied the various programming tools in DTP to identify inefficiencies from manual tasks that can be corrected and to establish links of tool integration in DTP that can be automated. The team then performed an automation study to test their proposed solution and findings.

*Keywords:* Digital Transformation Platform, Quadcopter, Drone, Rhapsody, Tool Integration