

21st IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND
DEVELOPMENT (D3)

Space Technology and System Management Practices and Tools (3)

Author: Ms. Grecia Olano O'Brien
Concordia University, Canada, grecia.olanob@gmail.comSPACE APPLICATION DEVELOPMENT: RAPID PROTOTYPING AND UI DESIGN
METHODOLOGIES**Abstract**

With respect to software applications for the space industry, it is crucial to emphasize that the prototyping of user interfaces (UIs) represents an essential milestone in the software development process. Designing intuitive UIs is a crucial step for guaranteeing that software products are user-friendly and easy to use. Furthermore, UIs serve as points of interaction between users and the software, and poorly designed interfaces often result in confusion, and errors. This paper explores the role and importance of the rapid prototyping, as a means of reducing the total development time and costs of software projects. What is more, effective UI design methodologies and tools are extensively discussed: from user experience (UX) tools such as user personas and journey maps, to information architecture (IA) patterns, and UI prototyping using Figma (a cloud-based prototyping tool). Through this study, the development of hypothetical earth observation platform for research and development (RD) will be used to illustrate the UI design process.