



Satellite Command Scheduling Application for Mission Operation and Control

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Motivation

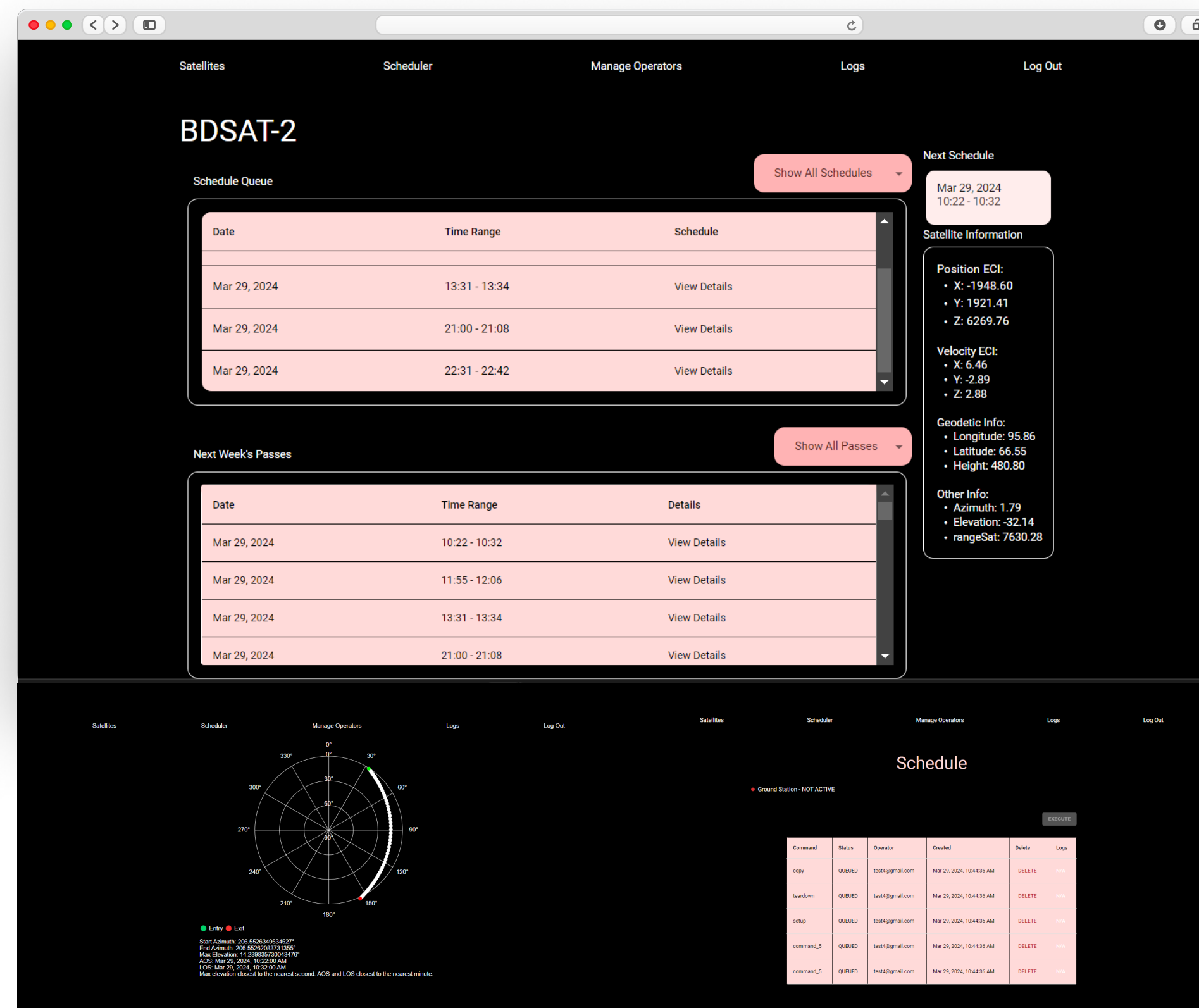
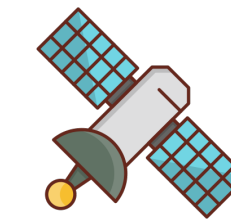
- Operators are not available for overpasses
- Launching the software is tedious
- Entering commands is prone to errors
- Flight & Engineering satellites have different interfaces

Features

- Centralized satellite interface that stores logs and manage permissions
- Tracks and details a satellite's overpasses
- Supports multi-satellite command scheduling and execution
- Storage and logs of executed commands sent to the satellite

Overview

A new web application which enables scheduling commands for specified satellite systems using built-in orbit prediction.



Notable Qualities

- ✓ Ease of use with new sample users being able to recognize and use core functions within **5** minutes
- ✓ Real-time communication of requests sent to the satellite using MongoDB's Change Stream, allowing operators to **immediately** react to new changes
- ✓ Encrypted communication using standard **UTF-8** encoding to ensure commands sent to a satellite are secure

