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Poster
The Active Link for Real-Time (I-ALiRT) project, included within the Interstellar Mapping and Acceleration Probe (IMAP) mission, will collect and broadcast real-time space weather data 24/7. The data packets will be received by international ground stations making up a network of dishes that meet requirements designating them capable of providing high-performance participation in the project. The Laboratory for Atmospheric and Space Physics (LASP) is leading the coordination efforts for this network of ground station partners and providing the support the satellite teams need to receive I-ALiRT data. This involved writing code that processes ephemeris data stored in Spice kernels and produces files used as pointing schedules for the satellite dishes and providing the scheduling files via website-embedded API endpoints supported by AWS architecture and python libraries. This poster presents the tools used to create this processing code and provide insight into how the ground station partners will be supported as members of the 24/7 coverage network. We also identify upcoming tasks within the coordinator project that will continue to add functionality to the system (for example, a predictive coverage map that shows the trajectory of the IMAP spacecraft and the reception area of dish partners). We share insights into the creation process of this wide-reaching project that aspires to supplement legacy space weather missions and provide real-time data products that are crucial to the world of forecasting.

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