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## Ancillary Data Production for SmallSats with SPICE

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SPICE is an information system the purpose of which is to provide scientists and engineers the observation geometry needed to plan scientific observations and to analyse the data returned from those observations. SPICE is comprised of a suite of data files, usually called kernels, and software -mostly subroutines-. A customer incorporates a few of the subroutines into his/her own program that is built to read SPICE data and compute needed geometry parameters for whatever task is at hand. Examples of the geometry parameters typically computed are range or altitude, latitude and longitude, phase, incidence and emission angles, instrument pointing calculations, and reference frame and coordinate system conversions. SPICE is also very adept at time conversions.

This contribution will outline how can SPICE be used for CubeSats to build up a cheap, efficient and robust system to obtain ancillary data.

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