

Navigation and Ancillary Information Facility

Remote Sensing Programming Lesson (Cassini)

October 2017

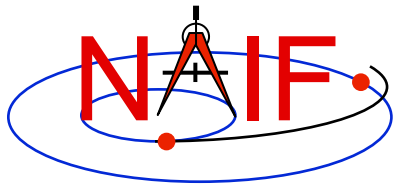
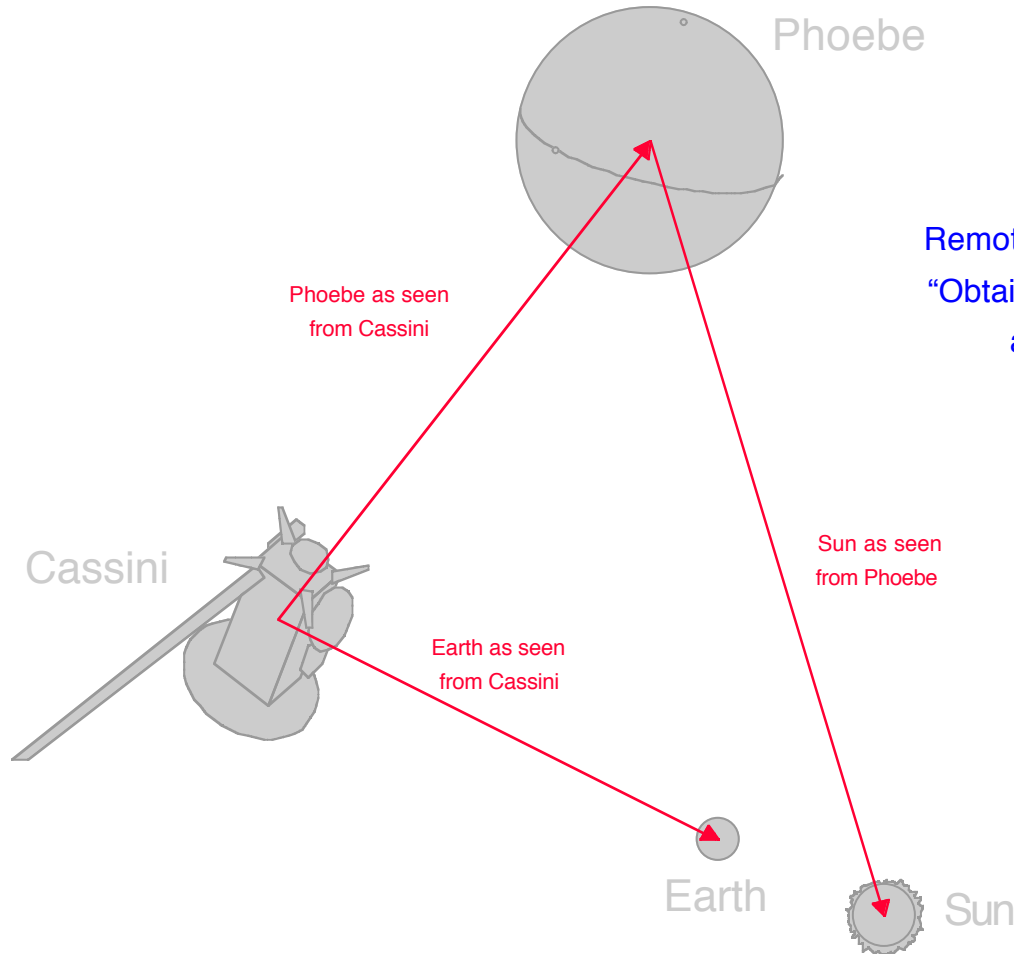


Diagram for “getsta” Exercise

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Remote Sensing Lesson:
“Obtaining Target States
and Positions”

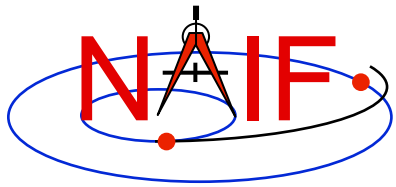
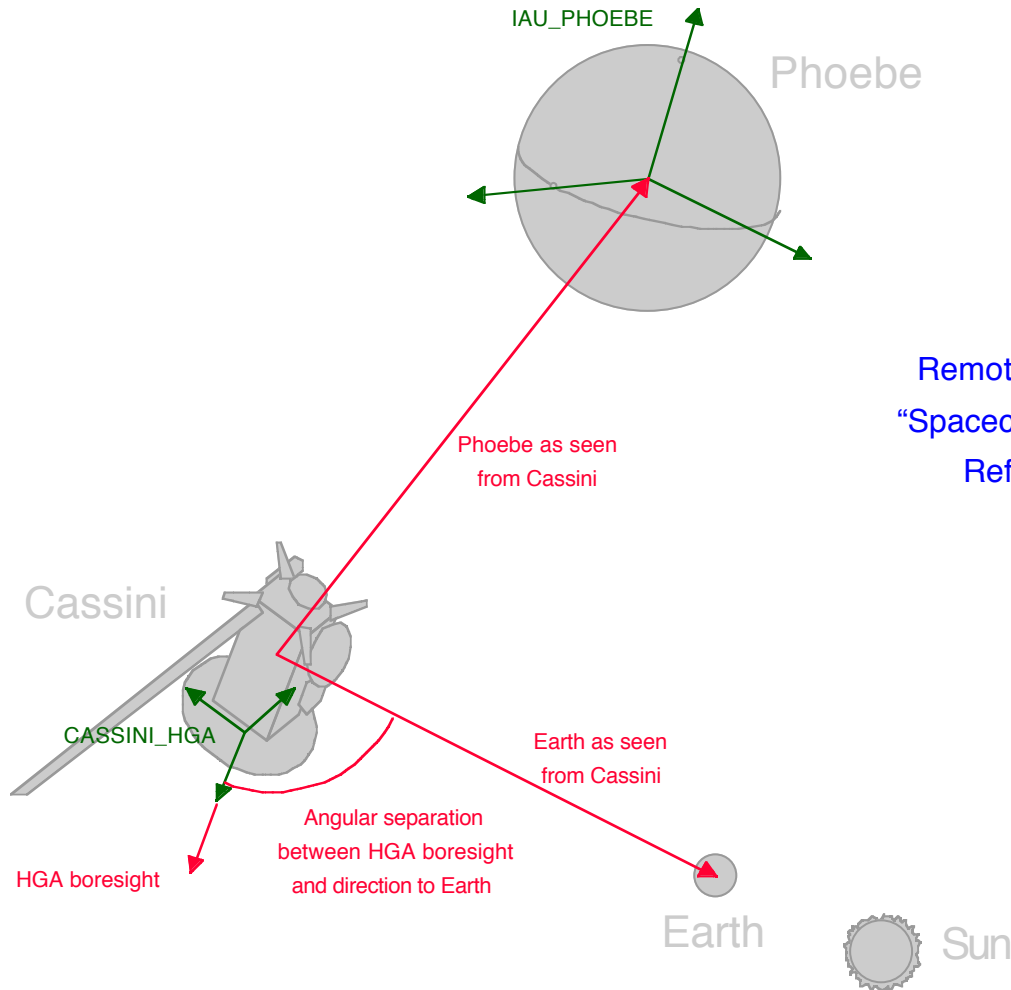
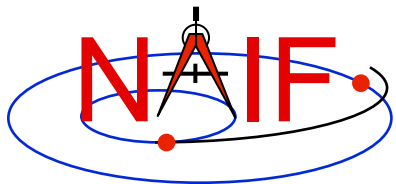


Diagram for “xform” Exercise

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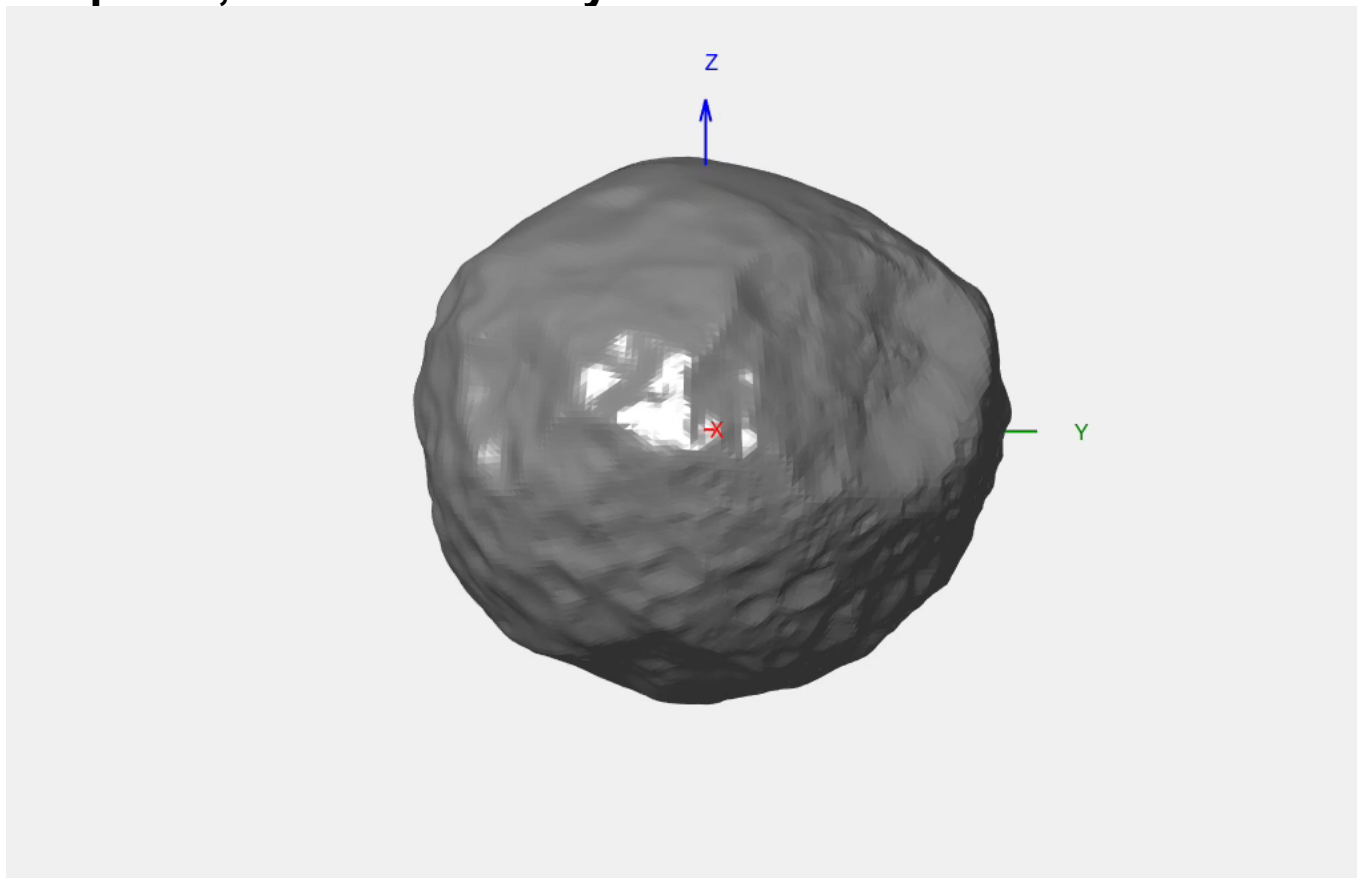
Remote Sensing Lesson:
“Spacecraft Orientation and
Reference Frames”



Phoebe Shape

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The next two tasks ask for computing observation geometry parameters for Phoebe modeled as a triaxial ellipsoid and as a triangular plate model provided in a DSK, resulting in significantly different values for these two cases. This should not be surprising given how different Phoebe's shape is from an ellipsoid, as illustrated by the animation/view below.



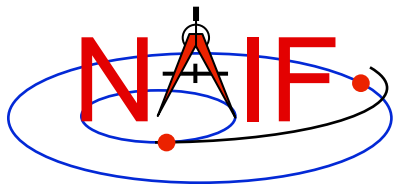
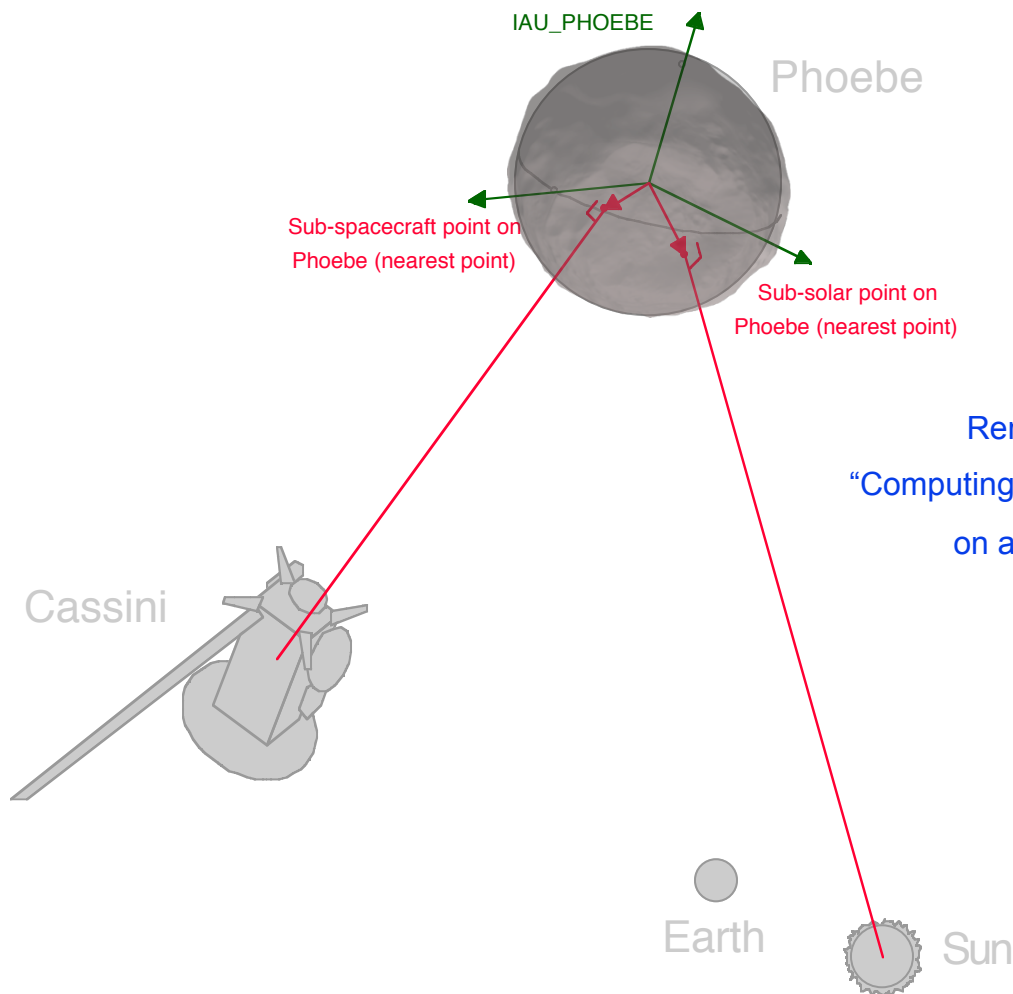


Diagram for “subpts” Exercise

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Remote Sensing Lesson:
“Computing Sub-s/c and Sub-solar Points
on an Ellipsoid and a DSK”

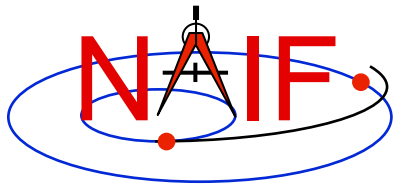
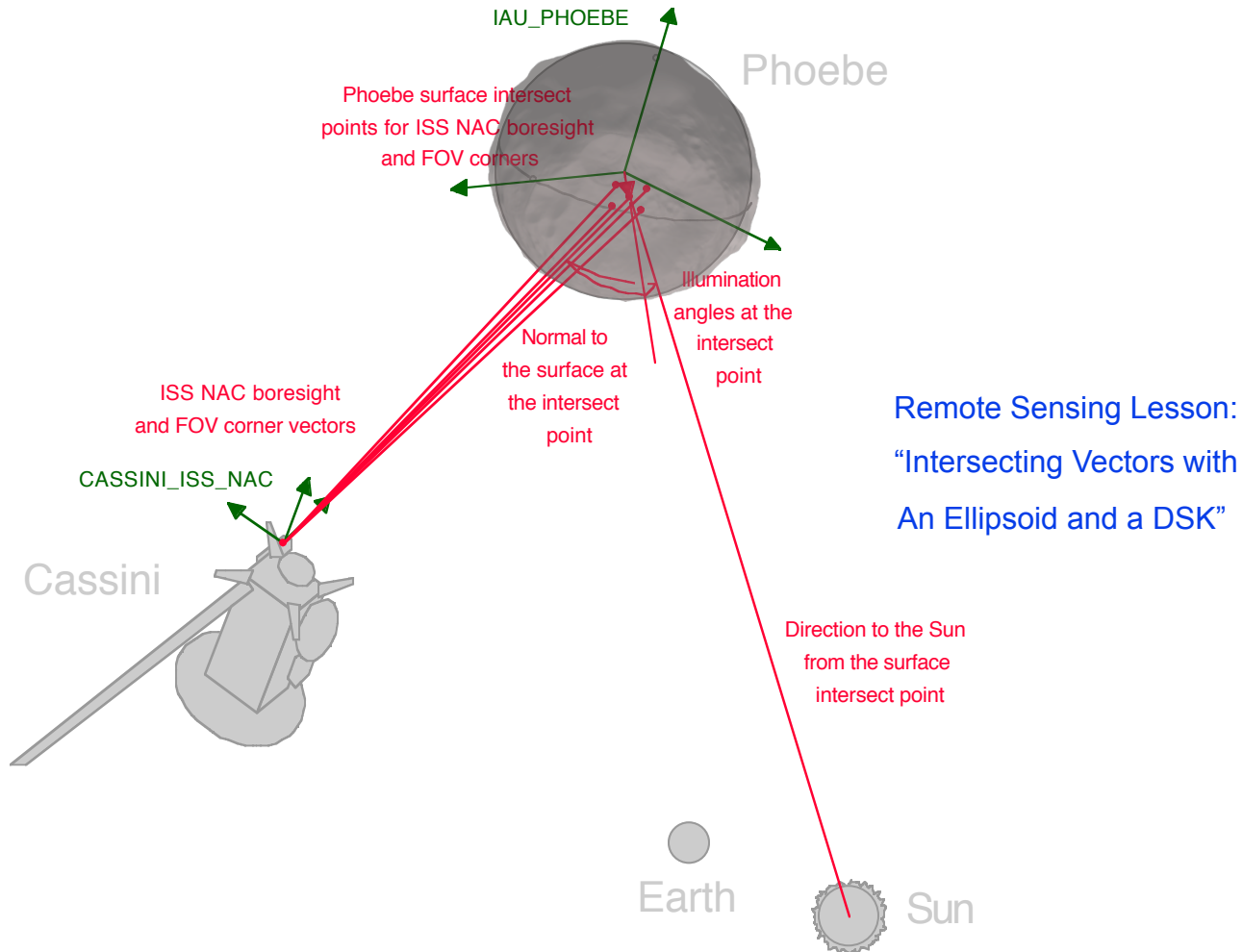
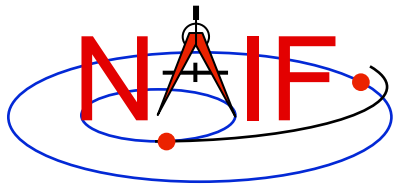


Diagram for “fovint” Exercise

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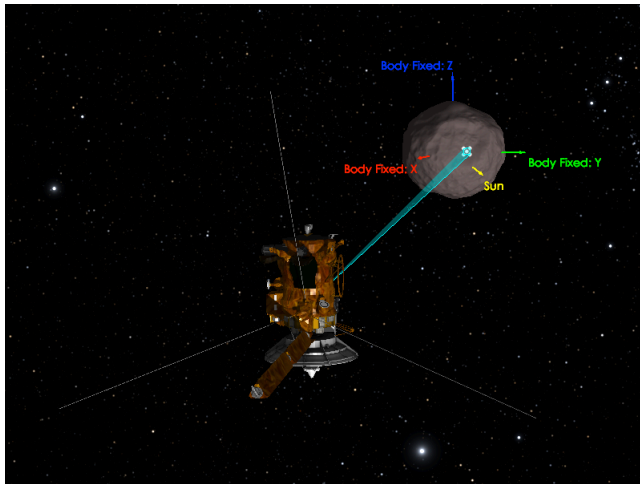




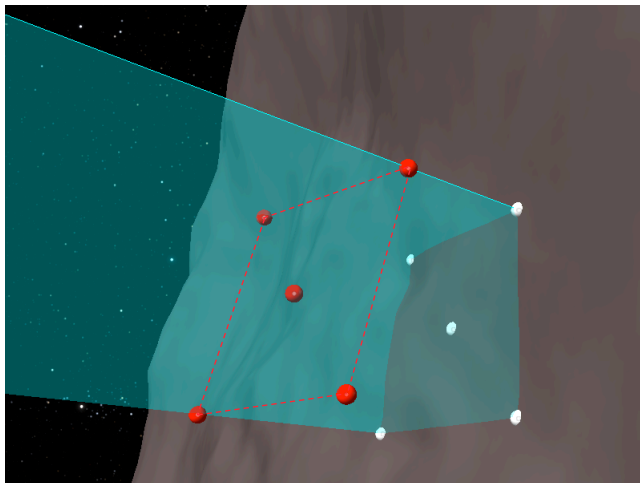
“fovint” Cosmographia Views

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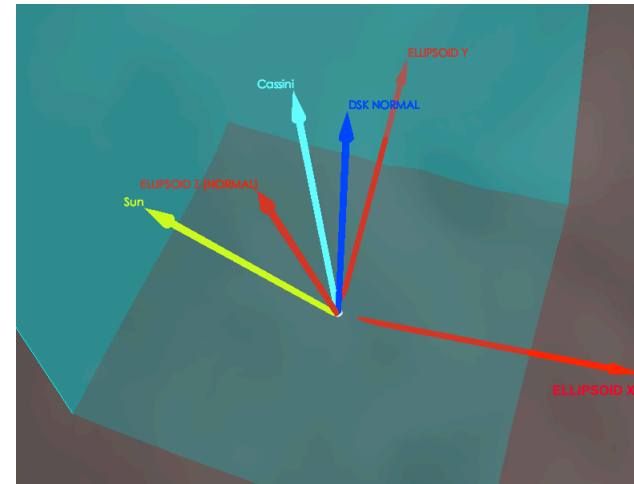
The “big” picture



Ellipsoid (red) and DSK (white) intercept points



Principal directions at the boresight DSK intercept point (top view)



Principal directions at the boresight DSK intercept point (side view)

