



Satellite Scheduling with VieSched++

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Scheduling observations to extragalactic radio sources is an integral part of Very Long Baseline Interferometry (VLBI) but also observations to satellites enable interesting scientific applications. TU Wien was involved in several successful experiments to observe the “Atmospheric density detection and Precise Orbit Determination” (APOD) and “Global Navigation Satellite Systems” (GNSS) satellites. One main goal of these satellite observations is to be able to provide geodetic space ties instead of local ties for connecting reference frames. So far, a Matlab-based module of the Vienna VLBI and Satellite Software (VieVS) was used to generate the schedules.

Recently a new scheduling tool called VieSched++ (based on C++) was released as part of the VieVS package. The results from the new scheduling tool for the observation of quasars outperform the previous version thus making the old scheduling software deprecated. One last missing feature of VieSched++ is the possibility to schedule observations to satellites. Due to the success of previous satellite observation missions and based on the knowledge gained with the old satellite scheduling software this option should now be included in VieSched++. This work compares results from VieSched++ with other VLBI scheduling software and provides a roadmap for the implementation of satellite scheduling options.