Web-Based Requesting and Scheduling Use of Facilities

Automated User’s Training Operations Facility Utilization Request (AutoFUR) is a software program administered a web-based system for requesting and allocating facilities and equipment for astronaut-training classes in conjunction with scheduling the classes. AutoFUR also has potential for similar use in such applications as scheduling flight-simulation equipment and instructors in commercial airplane-pilot training, managing preventive-maintenance facilities, and scheduling operating rooms, doctors, nurses, and medical equipment for surgery.

Whereas requesting and allocation of facilities was previously a manual process that entailed examination of documents (including paper drawings) from different sources, AutoFUR partly automates the process and makes all of the relevant information available via the requester’s computer. By use of AutoFUR, an instructor can fill out a facility-utilization request (FUR) form on line, consult the applicable flight manifest(s) to determine what equipment is needed and where it should be placed in the training facility, reserve the corresponding hardware listed in a training-hardware inventory database, search for alternative hardware if necessary, submit the FUR for processing, and cause paper forms to be printed. AutoFUR also maintains a searchable archive of prior FURs.

This work was done by Stephanie Granger, Robert Oliphant, and Evan Manning of Caltech for NASA’s Jet Propulsion Laboratory. Further information is contained in a TSP (see page 1).

This software is available for commercial licensing. Please contact Karina Edmonds of the California Institute of Technology at (626) 395-2322. Refer to NPO-42146.

Time-Tag Generation Script

Time-Tag Generation Script (TTaGS) is an application program, written in the AWK scripting language, for generating commands for aiming one Ku-band antenna and two S-band antennas for communicating with spacecraft. TTaGS saves between 2 and 4 person-hours per every 24 hours by automating the repetitious process of building between 150 and 180 antenna-control commands. TTaGS reads a text database of communication-satellite schedules and a text database of satellite rise and set times and cross-references items in the two databases. It then compares the scheduled start and stop with the geometric rise and set to compute the times to execute antenna control commands. While so doing, TTaGS determines whether to generate commands for guidance, navigation,