MOMA Script Validation Process

MOMA Scripts are thoroughly reviewed and tested before being approved for flight following the MOMA Script Validation Process. The validation process involves one or more (sometimes many more) meetings with representatives from the science, systems, electrical and software teams review each line of the script as well as one or more runs on the software testbed and engineering test unit. The intent of the process is to be thorough while still reacting quickly within the surface operations strategic and tactical flow.

Scripts that are in the review process or that have already been approved are identified as "Activities" and listed in XINA. See link below.

TODO Fix Link > XINA Payload Uplink Activities

The activity on XINA maintains the all the notes, versions, durations, energy, etc. that go along with the script (or in some cases scripts). During surface operations as well as integration and test activities with the ExoMars rover, the XINA activities will be accessible to the ExoMars team for access to all the support data (primarily duration, energy and data volume) and restrictions (such a environmental temperature and pressure) associated with a scipt.

For surface operations, at a minimum, the following three documents will be attached to the activity: 1. Meeting Notes. Includes attendees names, action items, etc. 2. Safety Critical Check List. Spreadsheet contain specific checks for safety critical items the will be completed by the reviewers. 3. Restrictions Document. List any environmental, electrical or other states that restrict the state MOMA must be in to run the script.

In addition, fields in the XINA contain the duration, energy, data volume, filename and version, file checksum, review status (Approved for Flight, Approved for ETU, Under Development) and other keys items.

The scripts themselves are text files and they are maintained in the NASA GSFC Subversion Version Control system (SVN). SVN maintains each checked in version and automatically replaces fields within the file such that the script can identify its SVN version number when it runs. After a script is approved for flight, it is "blessed". In this process, the filename is changed to contain the revision ID number of the script and placed in another SVN folder reserved for flight approved scripts.

Note that as of this writing in August 2016, the method of delivering an approved script to surface operations team or the integration and test team at TAS-I has not been defined.

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