

SPACE OPERATIONS SYMPOSIUM (B6)
Human Spaceflight Operations (1)

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OPERATIONS DATA FILES - DRIVING FORCE BEHIND INTERNATIONAL SPACE STATION
OPERATIONS**Abstract**

All tasks performed by the astronauts on-board the International Space Station (ISS) and by ground controllers in Mission Control Centre, from operation and maintenance of station systems to the execution of scientific experiments or high risk visiting vehicles docking manoeuvres, would not be possible without Operations Data Files (ODF). ODFs are the User Manuals of the Space Station and have multiple faces, going from traditional step-by-step procedures, scripts, cue cards, over displays, to software which guides the crew through the execution of certain tasks. Those key operational documents are standardized as they are used on-board the Space Station by an international crew constantly changing every 3 months. Furthermore this harmonization effort is paramount for consistency as the crew moves from one element to another in a manner of seconds, and from one activity to another. On ground, a significant large group of experts from all International Partners drafts, prepares reviews and approves on a daily basis all Operations Data Files, ensuring their timely availability on-board the ISS for all activities. Unavailability of these operational documentations will halt the conduction of experiments or cancel milestone events.

This paper will give an insight in the ground preparation work for the ODFs and will present an overview on ODF formats and their usage within the ISS environment today and show how vital they are. Furthermore the focus will be on the recently implemented ODF features, which significantly ease the use of this documentation and improve the efficiency of the astronauts performing the tasks. Examples are short video demonstrations, 3D animations, Execute Tailored Procedures (XTP-versions), tablet products, etc.