TRUST - TDRSS Resource User Support Tool
Space Network Control Conference, December 1990

TRUST
TDRSS Resource User Support Tool

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TRUST DEVELOPMENT CYCLE

Software tools: TIGS, OASIS, POLIS, TRUST

1980s

1990s

TDRSS

SME

UARS/SOLSTICE

1990s

Projects: Flight Study

TIGS

167
TRUST DEVELOPMENT

Flight Projects
- Solar Mesosphere Explorer (SME): Realtime Control and Monitoring; Science Planning and Scheduling; TDRSS Scheduling and Ground Control
- Solar/Stellar Irradiance Comparison Experiment (SOLSTICE): Science and Mission Planning; Instrument Monitoring, Command and Control
- Ocean Topography Experiment (TOPEX - JPL): LASP Involvement Includes TDRSS Scheduling
- Long Duration Balloon Project (LDBP - GSFC/WFF): LASP Involvement Includes TDRSS Scheduling and Ground Control

Study Projects
- Telescience Implications on Ground Systems, Scheduling Architectures Concepts and Networks (TIGS SCAN Testbed - GSFC): LASP Involvement Includes Planning and Scheduling; Instrument Operations

The TRUST System
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SUMMARY

- Generic TDRSS Scheduling with use of the Expert System
- Automatic Re-scheduling, for conflict resolution, with Expert System
- ODM/QDM Processing and Constraint Checking
- Trend analysis of TDRSS link, as an aid to TDRSS Operations
- Capable of formatting schedule messages, to allow scheduling of multiple networks (TDRSS, DSN, etc.)
- Receives and processes Spacecraft PSAT & Orbital Information
- Capable of handling several communications protocols (NASCOM, SPAN/DECNET, TCP/IP, etc.)
- Supplies planner/scheduler/operator a view of possible activities, in the Scientific/Mission Context (X Window Based)
- Menu driven GCMR, Schedule Requests & Processing, if desired
- Multi Spacecraft Capability
- Written Entirely In Ada

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