

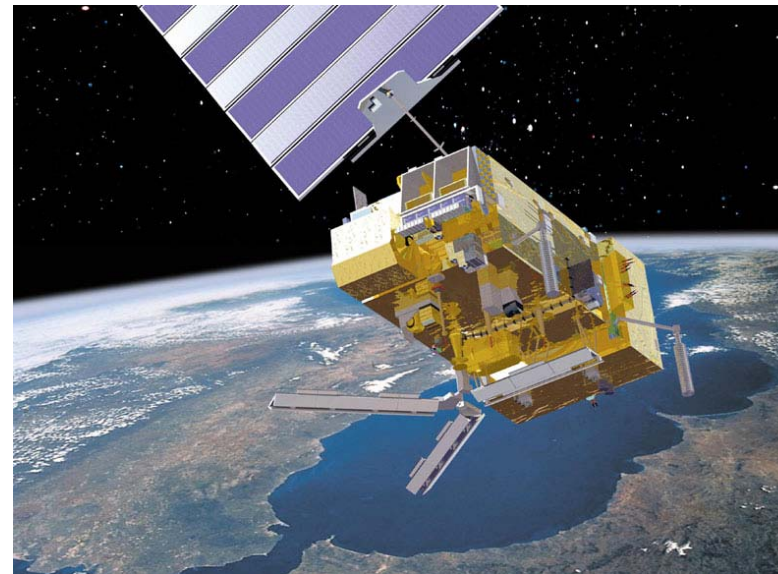
Optimum-AIV

Planning for Spacecraft Assembly, Integration & Test



Description:

- ◆ A knowledge-based system for planning and scheduling of spacecraft assembly, integration and verification (AIV).
- ◆ Aims to overcome simplified planning which manages temporal constraints but not resources or parallel activities.
- ◆ Commercial planning tools are either too simple to represent problems correctly or too complex to be used interactively.
- ◆ Used for planning the production of the vehicle equipment bays (VEB) for the Ariane-4 launcher.



Technical approach:

- ◆ A resource-driven scheduling mechanism facilitates the specification of different scenarios.
- ◆ Schedule development can be monitored while alternately using automatic mode/ manual mode.
- ◆ Notes conflicting demands for resources that cannot be solved automatically and supports the user in solving them.
- ◆ Allows monitoring of plan execution.
- ◆ *Success through involving & supporting the user in difficult decisions.*



Benefits:

- ◆ Rich description of AIV constraints is provided to user and used by the tool.
- ◆ Supports user in resolving resource conflicts.
- ◆ Clear representation & interactive capability allows assessment of several planning scenarios.
- ◆ Provides a single solution to both schedule management and the allocation of component equipment modules amongst competing VEBs.



AIAI, Computer Resources Intl, Matra Marconi Space & Progespace
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