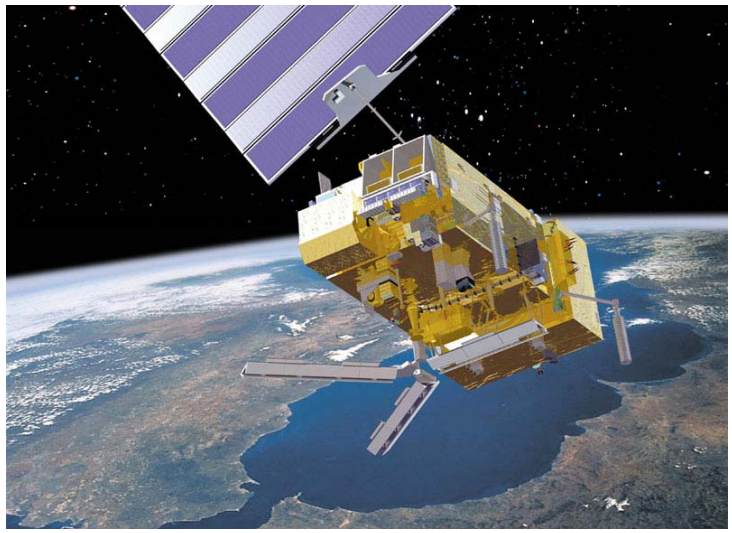
Optimum-AIV

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.**

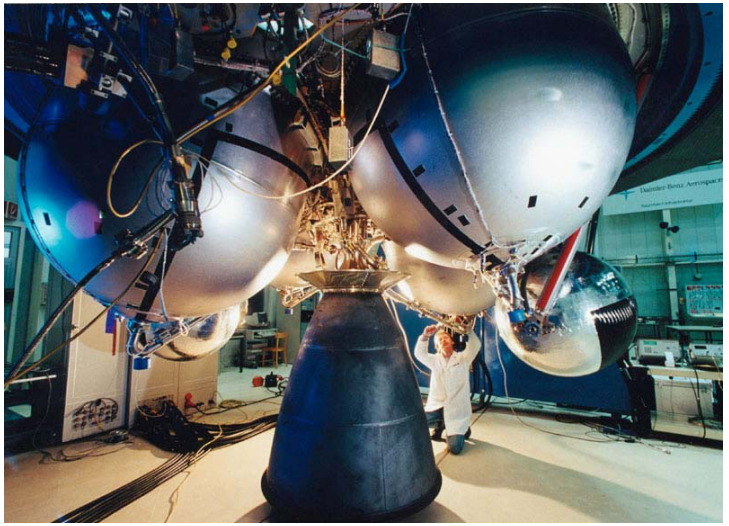


Technical approach:

- **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.**



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