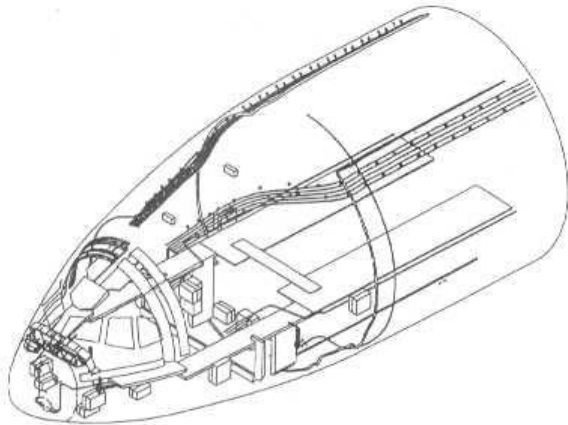


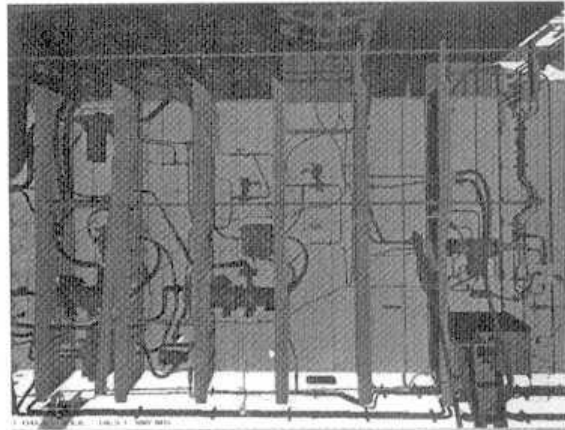
DIGITAL PREASSEMBLY (DPA)

DPA consists of assembling the digitally defined parts into an airplane in order to verify proper design before release. This process eliminated the need for a physical mockup, yet allowed frequent and early design verification. Parts were assembled as needed by designers, analysts, planners, or tool designers, showing the complete airplane volume or only the parts of interest (figure 11). The designer was responsible for frequent sharing of the model, as well as conducting interference checks and incorporating design feedback from other organizations. DPA used two dedicated organizations to manage the digital preassembly.

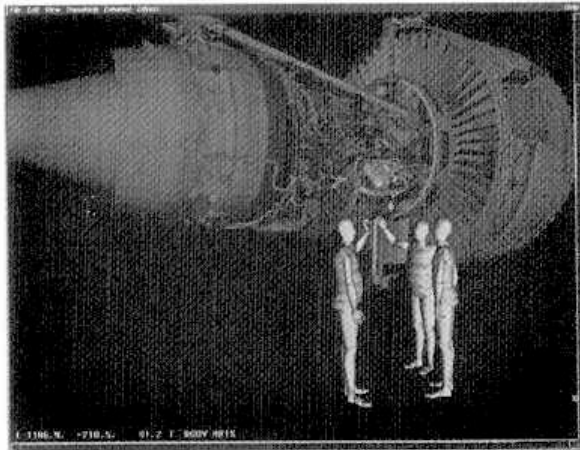
DPA administration provided data management of the share models to facilitate easy access, while Zone Management ensured cross-functional integration of the design through independent design reviews. Integration reviews were held frequently, with five formal reviews during the 2-year design phase. The reviews consisted of a cross-functional review of a particular airplane volume and were chaired by the Zone Management organization. Reviews covered functionality, producibility, and maintainability, including interference checks, interface coordination, and installation/removal access.



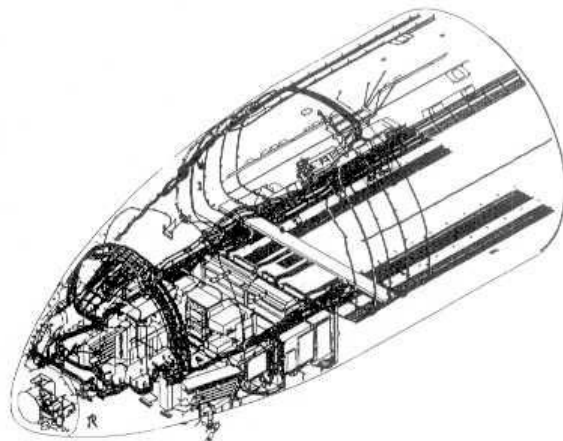
Stage 2
Section 41—Wires/electrical



Fly-Thru software
CATIA image



Full-motion human modeling
CATIA image



Stage 4
Section 41—Electrical

Figure 11. 777 Digital Preassembly