AMPS is a fully automated process planning system for milling of 2.5D parts. It consists of different modules, each of which performs specific tasks like identification of removal volumes, setup and fixture planning, tool selection and tool path planning. This article focuses on the architecture of the planning system, the integration of the different modules and the interfaces needed for smooth flow of information between these modules. Current computer aided process planning (CAPP) practices were considered while defining interfaces so that these modules can be easily integrated into a commercial CAPP system.