Product development processes are characterised by a high division of labour to reduce time to market and to optimise cost efficiency. Concurrent engineering addresses these requirements, but at the same time increases the complexity of the product development process. To handle this complexity, appropriate process planning and support for the execution of tasks is needed which arranges product models, controls the information flow and considers the design situation and the process itself. Since product models are considered to be the driving elements of a product development process, this paper proposes an approach called Product Model Driven Development (PMDD) to support managers and engineers, who are in charge of process planning and execution of tasks. Because product models and the design situation are closely related, this approach is based on description methods for both aspects. Hence, this contribution also presents approaches for the description of product models and the analysis of the design situation. The combination of these two factors builds the framework of Product Model Driven Development. Furthermore a permanent link between project planning and operative work shall be achieved.