DEPARTMENT FAHRZEUGTECHNIK UND FLUGZEUGBAU

Structure and function of the aircraft design program PrADO

Task description for a project 2 in accordance with test conventions

Background

PrADO (Preliminary aircraft Design and Optimisation Program) is a program of the institute for Aircraft Construction and Lightweight Construction of the Technical University of Brunschwig for the iterative, multidisciplinary design process of airplanes. It consists of a large number of subroutines, which reflect the contributions of the most important fields of activity needed in the design. These sub-programs are arranged according to draft problems or configuration to an overall system and supplemented if necessary by missing analyzers. The program is used at the HAW in the research project of the Green Freighter (http://GF.ProfScholz.de).

Task

The existing model is to be examined and documented for the work within PrADO. The modular structure of the program such as the libraries, the routines and subroutines etc. are to be described as a basis for later changes and implementation of modules on the part of the HAW.

The report was written according to German DIN or international standards on report writing.