

Baseline Selection in Redesign Process.

ABSTRACT

Product redesign process does not start from a total scratch. Instead, a reference baseline design needs to be selected as a starting point to define the required changes. So far, baseline products have been chosen usually based on the closeness of their current performance capabilities to the new driving requirements. This practice essentially presumes that such condition ensures a minimum amount of required changes, hence least redesign risk. However, it is argued that such notion can be misleading since the risk will also depend on the types and the extent of the required modifications. It is believed that the baseline product architecture plays an important role in dictating its suitability for the redesign task. A new baseline assessment procedure is proposed to address this notion. Through a sample of aircraft redesign case study, its potential to aid designers in making better judgment and selection of the proper baseline product for their redesign tasks at hand has been demonstrated.

Keyword: Redesign Process; Baseline Design; Baseline Assessment; Baseline Selection