The specification of and justification for design parameter (DP) tolerances are primarily based on the acceptable variation of the functions' performance and the functions' sensitivity to the design parameters. However, why certain tolerances are needed is often not transparent, especially in complex products with multi-disciplinary development teams. In those cases, tolerance synthesis and analysis get complicated which introduces ambiguities and difficulties for system-integrators and lead engineers for the objective decision making in terms of trade-offs but also in terms of an efficient computer aided functional tolerancing. Non-optimal tolerances yield potentials for cost improvements in manufacturing and more consistency of the functional performance of the product. In this contribution a framework is proposed to overcome the observed problems and increase the clarity, transparency and traceability of tolerances by analyzing the translation between the DPs and their influence on the final function.

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