Measuring process and knowledge consistency: A necessary step before implementing configuration systems

When implementing configuration systems, knowledge about products and processes are documented and replicated in the configuration system. This practice assumes that products are specified consistently i.e. on the same rule base and likewise for processes. However, consistency cannot be taken for granted; rather the contrary, and attempting to implement a configuration system may easily ignite a political battle. This is because stakes are high in the sense that the rules and processes chosen may only reflect one part of the practice, ignoring a majority of the employees. To avoid this situation, this paper presents a methodology for measuring product and process consistency prior to implementing a configuration system. The methodology consists of two parts: 1) measuring knowledge consistency and 2) measuring process consistency. Knowledge consistency is measured by developing a questionnaire with a 5 point Liker scale and a corresponding scoring system. Process consistency is measured by using a first-person drawing tool with the respondent in the centre. Respondents sketch the sequence of steps and people they contact when configuring a product. The methodology is tested in one company, and the paper presents and discusses these results.