Towards integration of FP weights into CP class complexity evaluation for effort estimation

ABSTRACT

Software development effort estimation is vital to project success. Both underestimates and overestimates of software effort are universal phenomenon in the software industry, which is critical for resource allocation and bidding. The Class Point (CP) system level object-oriented size measure was proposed as an adaptation of Function Point (FP) analysis for effort estimation purposes. However, the dataset for validation is limited to 40 university student's projects. This implementation is not only threatens the external validity of the conclusions but also the type of project has raised the issue on its weight allocation. In this paper, we proposed an alternative sizing approach for object-oriented effort estimation by integrating the FP's new calibrated weights into the CP's class complexity evaluation criteria. A preliminary correlation coefficient investigation on this integration using the six industrial verified object-oriented projects have shows that the proposed approach can be used with high confidence for effort estimation under object-oriented development paradigm.