ADVANTAGES OF METHOD ENGINEERING APPROACH TO SOFTWARE DEVELOPMENT PROCESS IN CONTRAST TO TRADITIONAL APPROACHES

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According to the majority of handbooks and sets of standards software development process combines the whole set of organizational, technical, human and technological units group. The chain of these groups forms the software life cycle, beginning from project idea and ending by disposal. Usually software lifecycle models divide into the logical executable periods – software lifecycle phases. There are two main models used for the projects from scratch. Consider these main groups.

Waterfall (cascade) model**.** All development activities are carried out sequentially. The end point of the phase signals about the start of the next one. The following phase start is denied until the previous one has finished. This approach causes the following disadvantages: (1) costs of each phase activity increase the costs both of the whole phase and all project and decrease the possibility flexibly to rework system; (2) problems on early phases are left for later resolving and can ignored or skipped; (3) the lack of close interaction with stakeholders during software development pipeline. (4) difficulties to add new functionality into the system, also then half of phases are already finished.

Evolutionary (Iterative) model. This model bases on iterations which includes the chain of process activities. As the iteration result the system prototype is completed with the certain functionality according to the initial requirements. This feedback prototype is reviewed by stakeholders; therefore new refined requirements are created. This approach has also its disadvantages: (1) the development process is not visible. It is needed regular milestones to measure progress of process; (2) the final system is often poorly structured. Iterative changes leads to broken software structure. Total costs and complexity are also increased.

Consequently, both main models have disadvantages, which could be avoided using some new flexible approaches are able to be tailored to the current project specific. Method engineering approach can be such flexible solution. It integrates into the software process to receive its situational conceptual model. Such software process components are considered as method chunks, which are tailored and selected by the method engineering engine.