

Iterative Reengineering of Legacy Systems

This paper describes a process model for re-engineering a legacy system - particularly a system that is in use and cannot be shut down for an extended period of time. One of the main issues the paper aims to address is the traditional approach of re-engineering a system all at once prohibiting the use of the system while it is being changed. To combat this, the authors propose a method which share features with the Chicken-Little Strategy and the Butterfly Methodology while alleviating some of the weaknesses with those strategies.

Figures 3.2 and 3.3 are very useful in understanding the architecture and process of Iterative Reengineering. Briefly described, figure 3.2 shows how the data of the legacy system and the iteratively reengineered system can co-exist and function until the legacy system has been completely replaced. Figure 3.3 shows the reengineering process that is used to achieve this replacement.

This paper (and specifically figure 3.3) was used as inspiration for the Refactoring Plan that was developed for the ISVis display. While this paper (and the covered case study) was targeted for data-centric systems, the more general idea of iterating over a reengineering process will definitely be applied to the process for adapting the ISVis display.