Abstract

Performance modeling is an important topic in overload control for web servers. Several attempts have been made to create performance models for web servers. The paper describes modeling a Web server to be controlled by Feedback control scheme. Feedback command theory was initially used to control of industrial processes. Its use for the control of performance software is recent. It provides a number of mathematical tools which can be used to analyze the stability of the commanded system and find the best adjustment that responds to the performance criteria. Our approach proceeds in two steps: system identification and controller design. In system identification, we construct mathematical models of the target system in forms of discrete transfer function focused on single-input single-output (SISO) systems. The role of controller is to modify the transfer function of the target system with regard to the control error between the reference value and the output value.