



Making the Grade - B (Bologna)

Loop Checking: A Technician's Guide by Harley Jeffery

Reviewed by Nick Sands

There has been a gap in control library, a hole where a book on checking loops as part of start-up. Harley Jeffery's book *Loop Checking: A Technician's Guide*, might have been just the thing to fill the missing spot. Jeffery has over 30 years of control experience, with more than 23 years with Control Southern, for whom he works as a consultant and project manager.

Jeffery introduces the subject of loop checking, as he intends the term, referring to the performance of control loops and not instrument loops. Consistent with that definition, Jeffery describes the general control loops and the opportunity for improving them in terms of standard deviation. Deadtime and valve characteristics are also described. The intro leads to a chapter on factory acceptance tests (FATs), the best chapter of the book. Jeffery gives examples of what to check and outlines of check lists and highlights the need to have a testing plan. A similar approach is used in the chapter on start-up, with example forms for loop checks. As in every chapter, Jeffery concludes with an example of a boiler control system.

The last chapters focus on the performance of the control loop; first by benchmarking the performance, and then by maintaining that performance. Jeffery describes how to perform loop tests to measure performance. Necessarily there is a brief discussion on tuning. Diagnostics and reporting are used to improve and maintain performance.

Jeffery makes an attempt to cover the topic of loop checking. Along the way he seems to have written a different book, one that touches on control loop performance, but he doesn't quite cover that subject either. In the end I was left half confused and half disappointed. The book is a quick read, taking only a few hours. I put the value of the book in the bologna range (B), even at the ISA member prices of \$46.