

Preface to the Third Edition

The third edition of this book has been enhanced to reflect the latest practical solutions in HVAC DDC design. Building control engineers play a significant role in the design, construction, and operation of energy-efficient and sustainable facilities. Once considered luxuries, solutions such as web services, cloud computing, smart metering, automated demand response, energy dashboards, and wireless technology are now essential elements in intelligent buildings. The following list includes a few of the subjects that have been updated or added to this edition in order of appearance.

Smart Sensors and Actuators
SCADA Systems
Wireless Control Technologies
Fuzzy Logic
LEED and DDC
Commissioning and DDC
Retrocommissioning and DDC
Monitoring-Based Commissioning
Energy Star and DDC
ASHRAE Standard 189.1
BACnet/IP
Smart Meters

LonWorks Networks Services
LonMaker for Windows
Web services
Tridium Solution
Smart Grid
Demand Response
Energy Dashboard
Cloud Computing
XML and HTML
JACE: Java Application Control Engine
Legacy DDC Systems
Pressure Independent Control Valves

This book remains a textbook and reference for HVAC designers and engineers, facility engineers, and anyone involved with the state-of-the-art HVAC DDC. Each chapter of this book includes an energy consideration section and practice problems.