IEC 61131 (“IEC 1131” until 1998) has become widely established in recent years as the programming standard in automation industry. Today, a wide range of small to large PLC manufacturers offer programming systems that are based on this standard. Additional standards and recommendations (e.g. for Motion Control) complement IEC 61131 with functionality in response to growing market requirements.

One of the most important advancements is IEC 61499 (formerly IEC 1499). The basic concepts and ideas of this standard are described in a separate chapter (Chapter 9). Its significance in connection with distributed PLC systems is discussed in Section 7.8.

IEC 61131 is now available in a second edition. The numerous changes and supplements to this standard have been incorporated in the 2nd edition of this book.

A comprehensive index at the end of the book facilitates the search for specific topics.

The enclosed DVD and CD contain the complete demo versions of two programming systems (in the latest versions), enabling the reader to immediately implement and consolidate the knowledge gained from this book by practical application.

We would like to thank SIEMENS AG and infoteam Software AG for providing the enclosed software.

Our special thanks go again to Hans-Peter Otto, member of the IEC and DKE standardisation committees for his active support and mutual inspiration.

With our sincere thanks also to all the people who helped to translate and finish this English version: Andrea Thieme, Kay Thomas-Sukrow, Robie O’Brien, Ormond O’Neill and Michael Sperber.
Above all, we want to thank our families, Susanne, Andreas, Tobias and Andrea, Vera, Olaf, Vanessa and Sebastian, for being so understanding and giving us the freedom to write this book.

We are grateful about the great interest in this book and would like to thank our attentive readers for their numerous suggestions, comments and feedback on typographical errors.

Karl-Heinz John
Michael Tiegelkamp

Winter 2009/2010
IEC 61131-3: Programming Industrial Automation
Systems
Concepts and Programming Languages, Requirements
for Programming Systems, Decision-Making Aids
John, K.-H.; Tiegelkamp, M.
2010, VI, 390 p., Hardcover
ISBN: 978-3-642-12014-5