

Preface to the Third Edition

The English version of the *Smart Card Handbook* has now reached its third edition. In comparison with the previous edition, it has been considerably expanded and thoroughly updated to represent the current state of the technology. In this book, we attempt to cover all aspects of smart card technology, with the term ‘technology’ intentionally being understood in a very broad sense.

As in previous editions, we have remained true to our motto, ‘better one sentence too many than one word too few’. We have described this ever-expanding subject in as much detail as possible. Even more examples, drawings and photographs have been added to make it easier to understand complicated relationships. The glossary has been enlarged to include many new terms covering all essential concepts related to smart cards, and it has been enhanced with cross-references. In many cases, it can provide a quick introduction to a particular subject. Altogether, these additions, extensions and improvements have resulted in a book that is more than three times as large as the first edition.

Here we can make a small comparison. Modern smart card operating systems currently comprise 120,000 lines of source code, which roughly corresponds to two books the size of the present edition. Even if you are not familiar with programming, you can readily appreciate how sophisticated these operating systems have become.

These small, colorful plastic cards with their semiconductor chips continue to spread from their original countries, Germany and France, throughout the world. In the coming years, this technology can be expected to outstrip all others, especially since it is still in its infancy and there is no end or consolidation in sight.

Smart card technology progresses in leaps and bounds, and we attempt to keep pace by publishing a new edition of the *Smart Card Handbook* every two to three years. The *Smart Card Handbook* represents the present state of technical knowledge, and in areas that are presently undergoing rapid change, we indicate possible paths of evolution. If certain things come to be seen differently at a later date, we can only remark that no one knows what the future will bring. Despite this, or perhaps just because of this, we welcome all comments, suggestions and proposed improvements, so that this book can continue to cover the subject of smart cards as completely as possible. Here we would like to explicitly thank the many attentive and interested readers who have pointed out unclear or ambiguous passages and errors. Once again, an errata list for this edition will be made available at www.wiley.co.uk/commstech/.

We would also like to thank our many friends and colleagues who have repeatedly offered valuable (and occasionally somewhat uncomfortable) suggestions for making this book better

and more complete. We would particularly like to thank Hermann Altschäfl, Peter van Elst, Klaus Finkenzeller, Thomas Graßl, Michael Schnellinger, Harald Vater and Dieter Weiß, as well as Kathryn Sharples at Wiley for her helpful support and Kenneth Cox for the translation.

Munich, June 2002

Wolfgang Rankl

[Rankl@gmx.net], [www.wiley.co.uk/commstech/]

Wolfgang Effing

[WEffing@gmx.net]