MACMILLAN
DICTIONARY
OF

**INFORMATION
TECHNOLOGY**

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OF

INFORMATION
TECHNOLOGY

Third Edition

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AND
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MACMILLAN
REFERENCE
BOOKS

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To Joanna, Gabrielle and Jonathan

Acknowledgements

In this dictionary material has been derived from a wide variety of sources. In some cases definitions are given within a particular context and the source body of the reference is given with the definition itself (eg. FIPS, AR). The references thus used are:

AFIPS	American Federation of Information Processing Societies
AFR	US Air Force Regulation
ANSI	American National Standards Institute
AR	US Army Regulation
DCID	US Director Central Intelligence Directive
DOD	US Department of Defence
DODD	US Department of Defence Directive
DOE	US Department of Energy
FIPS	US Federal Information Processing Standards
GAO	US General Accounting Office
MTR	Mitre Corporation
NSDD-145	US National Security Decision Directive 145

A number of definitions have been included from the *Philips New Media Systems Dictionary of Terms*, 2nd edition; and from the newsletter *Desktop Publisher*, with the kind permission of the publishers: Philips International BV and The Desktop Publishing Company Ltd. These terms are annotated Philips and Desktop in the text.

Many of the terms with reference AFR, AR, DCID, DOD, DODD, DOE, FIPS, GAO, MTR, NSDD-145, OMBC, and OPNAVINSI are contained in the Glossary of *Computer Security*, and are published with the kind permission of Douglas I Mansur and Major Mary C Curtis.

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Introduction to the Third Edition

The early 1980's saw new products and services emerging as a consequence of the fusion of what had, until then, been largely considered as separate technologies: computing, communications and microelectronics. The IT industry was born out of this integration and almost overnight a new or unfamiliar terminology came into being.

The use of IT terms results from the integration of new disciplines and applications in industry. This in turn depends on both technological developments and market forces. The former are relatively predictable but the latter are not. Videotex, for example, was considered extremely important in the early 1980's, and no one forecast the expansion of facsimile, also a communications based technology, in the latter half of the 1980's.

The migration of terms used in IT from their original disciplines to new ones is well illustrated by developments in printing. Terms such as pica, points and ems were introduced on a speculative basis in the first edition of the Dictionary. These did not appear to have become of central importance in the second edition but now, with desk top publishing, they are in common use amongst computing and other professionals.

The language of IT is, as we have suggested, in a constant state of evolution due to ever varying developments within the discipline. For example, agreement has been reached on a range of international standards, particularly in communications: ISO-OSI, X.400, EDI etc., which should lead to a wider penetration of IT goods and services, with a consequent impact on IT terminology. Whilst agreement on standards will help to speed the integration of different computer based systems, there is a growing concern both amongst the public at large and corporate users of IT due to threats to data and computer security from such sources as viruses, hackers and wire tappers. The explosive growth in the power of personal computers and software remains unabated both for stand-alone applications, but also as workstations in office automation and to provide user-friendly access to corporate data.

Information technology is finding its place in the home through consumer electronics and increasingly low price, but powerful, personal computers. Both videotex and cable have not emerged as important forces here, but no doubt satellite television for domestic use will be an important factor.

Given the pace of these trends one can expect the emergence of new IT terms as the English language evolves to encompass these developments, both in the home and in the office. Meanwhile, the authors have attempted to capture, clarify and define these new terms as they come into focus.

How to use this dictionary

The design of the dictionary is based upon the principle that most readers never consult this section and so, to avoid confusion, sophisticated listing and cross reference techniques have not been employed.

The terms are retained in the normal order, ie **automatic widow adjust** is listed under automatic. They are sorted in alphabetical order of the complete term, ie **light pen** comes between **light emitting diode** and **light stability**. This order contrasts with some dictionaries in which the alphabetical order is based on a heavier weighting of the first word in a term, ie all terms commencing with **light** precede all terms commencing with **lighting**. In the alphabetical ordering digits are ranked before the letter 'A', ie **V.57** appears before **vacuum fluorescent display** and not at the end of the 'V' terms.

The area from which the head word is derived, is usually indicated in the definition, eg In computing, In printing ... If more than one definition is related to a head word, then the entry is itemized to reflect this and the relevant field indicated in each sub-entry.

The terms normally appear in lower case characters, and proper nouns headed by an upper case, eg **Bildschirmtext**. Acronyms are presented in full upper case and the appropriate letters are amplified in the text, eg:

PERT — Program Evaluation and Review Technique.

The cross references are given under these headings: 'Compare', 'See' and 'Synonymous with'.

A significant feature of this dictionary is the use of extended entries dealing with important topics of the subject, ie artificial intelligence, banking networks, cable television, CD-Rom publishing, cellular radio, computer-based training, computer security, cryptography, data protection, desk-top publishing, expert systems, fiber optics, fifth generation computer, local area network, machine translation, outline information retrieval, open systems interconnection, proof of program correctness, smart card, video disk, visual display terminal and X.400.