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Australian Standard 2580—1983

Programming Language PASCAL

STANDARDS ASSOCIATION OF AUSTRALIA
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AUSTRALIAN STANDARD

Programming Language PASCAL

AS 2580—1983

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PREFACE

This standard was prepared under the authority of the Association's Committee Information Process Systems. It is identical with and has been reproduced from BS 6192: 1982, and acknowledgement is accordingly made to the British Standards Institution. It is likely that the draft international standard, ISO/DIS 7185, and the resulting standard ISO 7185, will refer to the text of BS 6192 for the whole of the technical content.

This standard specifies the semantics and syntax of the computer programming language Pascal by defining requirements for a processor and for a conforming program. Two levels of compliance are defined for both processors and programs.

For the purpose of this Australian standard, the text of BS 6192 given herein should be modified as follows:

(a) *Terminology*: Wherever 'ISO 7185' appears, it should be read as 'AS 2580'.

(b) *Cross-references*: The references to International standards should be replaced by references to Australian standards as follows:

Reference to International standard	*Appropriate Australian standard*
ISO 646, 7-bit coded character set for information processing interchange	AS 1776, Information processing—7-bit coded character set for information interchange

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Foreword

The computer programming language Pascal was designed by Professor Niklaus Wirth to satisfy two principal aims:

(a) to make available a language suitable for teaching programming as a systematic discipline based on certain fundamental concepts clearly and naturally reflected by the language;

(b) to define a language whose implementations could be both reliable and efficient on then available computers.

However, it has become apparent that Pascal has attributes that go far beyond these original goals. It is now being increasingly used commercially in the writing of both system and application software. This standard is primarily a consequence of the growing commercial interest in Pascal and the need to promote the portability of Pascal programs between data processing systems.

In drafting this standard the continued stability of Pascal has been a prime objective. However, apart from changes to clarify the specification, two major changes have been introduced.

(1) The syntax used to specify procedural and functional parameters has been changed to require the use of a procedure or function heading, as appropriate (see **6.6.3.1**); this change was introduced to overcome a language insecurity.

(2) A fifth kind of parameter, the conformant array parameter, has been introduced (see **6.6.3.7**). With this kind of parameter, the required bounds of the index-type of an actual parameter are not fixed, but are restricted to a specified range of values.

Editorial note. It is normal convention to use italic type for algebraic quantities. Since the status of such quantities contained in this standard may or may not directly represent true variable quantities, this convention has not been adopted in this standard.