AS ISO/IEC 9075.10—2005

Australian Standard™

Information technology—Database languages—SQL

Part 10: Object Language Bindings (SQL/OLB)

STANDARDS AUSTRALIA

This Australian Standard was prepared by Committee IT-027, Data Management and Interchange. It was approved on behalf of the Council of Standards Australia on 16 May 2005. This Standard was published on 16 June 2005.

The following are represented on Committee IT-027:

Association of Superannuation Funds of Australia
Australia Post
Australia Bankers Association
Australian Bureau of Statistics
Australian Computer Society
Australian Customs Service
Australian Electoral Commission
Australian Electric and Electronic Manufacturers Association
Australian Industry Group
Australian Information Industry Association
Australian Institute of Health and Welfare
Australian Taxation Office
Centrelink
Department of Defence
Department of Immigration, Multicultural and Indigenous Affairs
Health Insurance Commission
Data Management Association Australia

This Standard was issued in draft form for comment as DR 05148.

Australian Standard™

Information technology—Database languages—SQL

Part 10: Object Language Bindings (SQL/OLB)

First published as AS ISO/IEC 9075.10—2005.

Published by Standards Australia GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6769 9

PREFACE

This Standard was prepared by the Standards Australia Committee IT-027, Data Management and Interchange.

This Standard is identical with, and has been reproduced from ISO/IEC 9075-10:2003, *Information technology—Database languages—SQL*—Part 10: *Object Language Bindings (SQL/OLB)*.

The objective of this Standard is to provide database designers, administrators and developers extension definitions of database language SQL to support embedding of SQL statements into the programs written in the Java(tm) programming language.

This Standard is Part 10 of AS 9075, *Information technology—Database languages—SQL*, which is published in parts as follows:

Part 1: Framework (SQL/Framework)
Part 2: Foundation (SQL/Foundation)
Part 3: Call-Level Interface (SQL/CLI)
Part 4: Persistent Stored Modules (SQL/PSM)
Part 5: Host Language Bindings (SQL/Bindings)
Part 9: Management of External Data (SQL/MED)
Part 10: Object Language Bindings (SQL/OLB) (this Standard)
Part 11: Information and Definition Schemas (SQL/Schemata)
Part 13: SQL Routines and Types Using the Java™ Programming Language (SQL/JRT)
Part 14: XML-Related Specifications (SQL/XML)

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this part of ISO/IEC 9075' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards as follows:

Reference to International Standard		*Australian Standard*	
ISO/IEC		AS	
9075	Information technology—Database languages—SQL	9075	Information technology—Database languages—SQL
9075-1	Part 1: Framework (SQL/Framework)	9075.1	Part 1: Framework (SQL/Framework)
9075-2	Part 2: Foundation (SQL/Foundation)	9075.2	Part 2: Foundation (SQL/Foundation)
9075-4	Part 4: Persistent Stored Modules (SQL/PSM)	9075.4	Part 4: Persistent Stored Modules (SQL/PSM)
9075-9	Part 9: Management of External Data (SQL/MED)	9075.9	Part 9: Management of External Data (SQL/MED)
9075-11	Part 11: Information and Definition Schemas (SQL/Schemas)	9075.11	Part 11: Information and Definition Schemas (SQL/Schemas)

Only referenced documents that have been adopted as Australian or Australian/New Zealand Standards have been listed.

CONTENTS

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

Page

TABLES

Page

INTRODUCTION

The organization of this Part of this International Standard is as follows:

1) Clause 1, “Scope”, specifies the scope of this part of ISO/IEC 9075.

2) Clause 2, “Normative references”, identifies additional standards and publically-available specifications that, through reference in this part of ISO/IEC 9075, constitute provisions of this part of ISO/IEC 9075.

3) Clause 3, “Definitions, notations, and conventions”, defines the notations and conventions used in this part of ISO/IEC 9075.

4) Clause 4, “Concepts”, presents concepts used in the definition of the Object Language Bindings.

5) Clause 5, “Lexical elements”, defines the lexical elements of the language.

6) Clause 6, “Scalar expressions”, defines the elements of the language that produce scalar values.

7) Clause 7, “Additional common elements”, defines additional language elements that are used in various parts of the language.

8) Clause 8, “Embedded SQL”, defines the host language embeddings.

9) Clause 9, “Binary portability”, provides an overview of the binary portability and profile customization requirements for SQLJ.

10) Clause 10, “SQLJ grammar constructs”, defines the BNF conventions, common subelements, and datatype mappings for SQLJ.

11) Clause 11, “<SQLJ specific clause> and contents”, defines the syntax and rules for SQLJ constructs.

12) Clause 12, “Package sqlj.runtime”, specifies the SQLJ runtime package.

13) Clause 13, “Package sqlj.runtime.profile”, specifies the SQLJ runtime profile package.

14) Clause 14, “sqlj.runtime.profile.util.ProfileCustomizer”, specifies the SQLJ profile customizer class.

15) Clause 15, “Status codes”, defines SQLSTATE values related to Object Language Bindings.

16) Clause 16, “Conformance”, defines the criteria for conformance to this part of ISO/IEC 9075.

17) Annex A, “SQL Conformance Summary”, is an informative Annex. It summarizes the conformance requirements of the SQL language.

18) Annex B, “Implementation-defined elements”, is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-defined.

19) Annex C, “Implementation-dependent elements”, is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-dependent.

20) Annex D, “SQL feature taxonomy”, is an informative Annex. It identifies features of the SQL language specified in this part of ISO/IEC 9075 by a numeric identifier and a short descriptive name. This taxonomy is used to specify conformance and might be used to develop other profiles involving the SQL language.

21) Annex E, “SQLJ tutorial”, is an informative Annex. It contains tutorial information about the features of the SQL language that are specified in this part of ISO/IEC 9075.

In the text of this part of ISO/IEC 9075, Clauses begin a new odd-numbered page. Any resulting blank space is not significant.

All Clauses of this part of ISO/IEC 9075 are normative.

AUSTRALIAN STANDARD

Information technology — Database languages — SQL —

Part 10:
Object Language Bindings (SQL/OLB)

1 Scope

This part of ISO/IEC 9075 defines extensions of Database language SQL to support embedding of SQL statements into programs written in the Java™ programming language (Java is a registered trademark of Sun Microsystems, Inc.). The embedding of SQL into Java is commonly known as “SQLJ”. This part of ISO/IEC 9075 specifies the syntax and semantics of SQLJ, as well as mechanisms to ensure binary portability of resulting SQLJ applications. In addition, it specifies a number of Java packages and their contained classes (including methods).

Throughout this part of ISO/IEC 9075, the terms "SQLJ" and "SQL/OLB" are used synonymously.