

Australian Standard™

**Information technology—Database
languages—SQL**

**Part 9: Management of External Data
(SQL/MED)**



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Australian Standard™

**Information technology—Database
languages—SQL**

**Part 9: Management of External Data
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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 9075-9:2003, *Information technology—Database languages—SQL—Part 9: Management of External Data (SQL/MED)*.

The objective of this Standard is to provide database designers, administrators and developers with a definition of extensions to database language SQL to support management of external data through the use of foreign data wrappers and datalink types.

This Standard is Part 9 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) (this Standard)
- Part 10: Object Language Bindings (SQL/OLB)
- Part 11: Information and Definition Schemas (SQL/Schemas)
- Part 13: SQL Routines and Types Using the Java™ Programming Language (SQL/JRT)
- Part 14: XML-Related Specifications (SQL/XML)

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

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
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)
9075-3	Part 3: Call-Level Interface (SQL/CLI)	9075.3	Part 3: Call-Level Interface (SQL/CLI)
9075-11	Part 11: Information and Definition Schemas (SQL/Schemas)	9075.11	Part 11: Information and Definition Schemas (SQL/Schemas)

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INTRODUCTION

The organization of this part of ISO/IEC 9075 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 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 related to this part of ISO/IEC 9075.
- 5) Clause 5, “Lexical elements”, defines the lexical elements of the language specified in this part of ISO/IEC 9075.
- 6) Clause 6, “Scalar expressions”, defines the elements of the language that produce scalar values.
- 7) Clause 7, “Query expressions”, defines the elements of the language that produce rows and tables of data.
- 8) Clause 8, “URLs”, specifies the format of URLs used in this part of ISO/IEC 9075.
- 9) Clause 9, “Additional common rules”, specifies the rules for assignments that retrieve data from or store data into SQL-data, and formation rules for set operations.
- 10) Clause 10, “Additional common elements”, defines additional common elements used in the definition of foreign tables, foreign servers, and foreign-data wrappers.
- 11) Clause 11, “Schema definition and manipulation”, defines facilities related to foreign tables and datalink type support for creating and managing a schema.
- 12) Clause 12, “Catalog manipulation”, defines facilities for creating, altering, and dropping foreign servers and foreign-data wrappers.
- 13) Clause 13, “Access control”, defines facilities for controlling access to SQL-data.
- 14) Clause 14, “SQL-client modules”, defines SQL-client modules and externally-invoked procedures.
- 15) Clause 15, “Data manipulation”, defines the data manipulation statements.
- 16) Clause 16, “Session management”, defines the SQL-session management statements.
- 17) Clause 17, “Dynamic SQL”, defines the dynamic SQL statements.
- 18) Clause 18, “Embedded SQL”, defines the embedded SQL statements.
- 19) Clause 19, “Call-Level Interface specifications”, defines facilities for using SQL through a Call-Level Interface.
- 20) Clause 20, “SQL/CLI routines”, defines each of the routines that comprise the Call-Level Interface.
- 21) Clause 21, “SQL/MED common specifications”, specifies common facilities used by SQL/MED.

- 22) [Clause 22, “Foreign-data wrapper interface routines”](#), specifies the interaction between an SQL-server and a foreign-data wrapper.
- 23) [Clause 23, “Diagnostics management”](#), defines the diagnostics management facilities.
- 24) [Clause 24, “Information Schema”](#), defines viewed tables that contain schema information.
- 25) [Clause 25, “Definition Schema”](#), defines base tables on which the viewed tables containing schema information depend.
- 26) [Clause 26, “Status codes”](#), defines values that identify the status of the execution of SQL-statements and the mechanisms by which those values are returned.
- 27) [Clause 27, “Conformance”](#), specifies the way in which conformance to this part of ISO/IEC 9075 may be claimed.
- 28) [Annex A, “SQL Conformance Summary”](#), is an informative Annex. It summarizes the conformance requirements of the SQL language.
- 29) [Annex B, “Implementation-defined elements”](#), is an informative Annex. It lists those features for which 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.
- 30) [Annex C, “Implementation-dependent elements”](#), is an informative Annex. It lists those features for which 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.
- 31) [Annex D, “Incompatibilities with ISO/IEC 9075:1999”](#), is an informative Annex. It lists incompatibilities with the previous version of ISO/IEC 9075.
- 32) [Annex E, “Typical header files”](#), is an informative Annex. It provides examples of typical definition files for application programs using the SQL Call-Level Interface.
- 33) [Annex F, “SQL feature taxonomy”](#), is an informative Annex. It identifies features and packages of the SQL language specified in this part of ISO/IEC 9075 by an identifier and a short descriptive name. This taxonomy is used to specify conformance to the packages specified in this part of ISO/IEC 9075. The feature taxonomy may be used to develop other profiles involving the SQL language.
- 34) [Annex G, “SQL/MED model”](#), is an informative Annex. It uses annotated diagrams to illustrate the more important concepts of the model of SQL/MED, including the relationships between the SQL-server, foreign-data wrappers, and foreign servers.

In the text of this part of ISO/IEC 9075, Clauses begin a new odd-numbered page, and in [Clause 5, “Lexical elements”](#), through [Clause 27, “Conformance”](#), Subclauses begin a new page. Any resulting blank space is not significant.

AUSTRALIAN STANDARD

Information technology — Database languages — SQL —

Part 9:

Management of External Data (SQL/MED)

1 Scope

This part of ISO/IEC 9075 defines extensions to Database Language SQL to support management of external data through the use of foreign-data wrappers and datalink types.