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

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This fifth edition cancels and replaces the fourth edition (ISO/IEC 9075-9:2016), which has been technically revised. It also incorporates the Technical Corrigenda ISO/IEC 9075-9:2016/Cor.1:2019 and ISO/IEC 9075-9:2016/Cor.2:2022.

The main changes are as follows:

— improve the presentation and accuracy of the summaries of implementation-defined and implementation-dependent aspects of this document;

— introduction of several digital artifacts;

— alignment with updated ISO house style and other guidelines for creating standards.

This fifth edition of ISO/IEC 9075-9 is designed to be used in conjunction with the following editions of other parts of the ISO/IEC 9075 series, all published in 2023:

— ISO/IEC 9075-1, sixth edition;

— ISO/IEC 9075-2, sixth edition;

— ISO/IEC 9075-3, sixth edition;

— ISO/IEC 9075-4, seventh edition;

— ISO/IEC 9075-10, fifth edition;

— ISO/IEC 9075-11, fifth edition;

— ISO/IEC 9075-13, fifth edition;

— ISO/IEC 9075-14, sixth edition;

— ISO/IEC 9075-15, second edition;

— ISO/IEC 9075-16, first edition.

A list of all parts in the ISO/IEC 9075 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

The organization of this document is as follows:

1) Clause 1, "Scope", specifies the scope of this document.

2) Clause 2, "Normative references", identifies additional standards that, through reference in this document, constitute provisions of this document.

3) Clause 3, "Terms and definitions", defines the terms and definitions used in this document.

4) Clause 4, "Concepts", presents concepts related to this document.

5) Clause 5, "Lexical elements", defines the lexical elements of the language specified in this document.

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, "Additional common rules", specifies the rules for assignments that retrieve data from or store data into SQL-data, and formation rules for set operations.

9) Clause 9, "Additional common elements", defines additional common elements used in the definition of foreign tables, foreign servers, and foreign-data wrappers.

10) Clause 10, "Schema definition and manipulation", defines facilities related to foreign tables and datalink type support for creating and managing a schema.

11) Clause 11, "Access control", defines facilities for controlling access to SQL-data.

12) Clause 12, "SQL-client modules", defines SQL-client modules and externally-invoked procedures.

13) Clause 13, "Additional data manipulation rules", defines additional rules for data manipulation.

14) Clause 14, "Session management", defines the SQL-session management statements.

15) Clause 15, "Dynamic SQL", defines the dynamic SQL statements.

16) Clause 16, "Embedded SQL", defines the embedded SQL statements.

17) Clause 17, "Diagnostics management", defines the diagnostics management facilities.

18) Clause 18, "Call-Level Interface specifications", defines facilities for using SQL through a Call-Level Interface.

19) Clause 19, "SQL/CLI routines", defines each of the routines that comprise the Call-Level Interface.

20) Clause 20, "URLs", specifies the format of URLs used in this document.

21) Clause 21, "Catalog manipulation", defines facilities for creating, altering, and dropping foreign servers and foreign-data wrappers.

22) Clause 22, "SQL/MED common specifications", specifies common facilities used by SQL/MED.

23) Clause 23, "Foreign-data wrapper interface routines", specifies the interaction between an SQL-server and a foreign-data wrapper.

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.