Australian Standard™

Information technology—Database languages—SQL multimedia and application packages

Part 5: Still image

STANDARDS AUSTRALIA

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Part 5: Still image

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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 13249-5:2003, *Information technology—Database languages—SQL multimedia and application packages*—Part 5: *Sill image*.

The objective of this Standard is to define the still image user-defined types and their associated routines for use in SQL databases by software developers.

This Standard is Part 5 of AS 13249, *Information technology—Database languages—SQL multimedia and application packages*, which is published in parts as follows:

Part 1: Framework
Part 2: Full-Text
Part 3: Spatial
Part 5: Still image (this Standard)
Part 6: Data mining

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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 13249' 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 ISO/IEC	
9075	Information technology—Database languages—SQL	9075	Information technology—Database languages—SQL
9075-9	Part 9: Management of external data (SQL/MED)	9075.9	Part 9: Management of external data (SQL/MED)
13249	Information technology—Database languages—SQL multimedia and application packages	13249	Information technology—Database languages—SQL multimedia and application packages
13249-1	Part 1: Framework	13249.1	Part 1: Framework
15444	Information technology—JPEG 2000 image coding system	15444	Information technology—JPEG 2000 image coding system
15444-1	Part 1: Core coding system	15444.1	Part 1: Core coding system
		AS/NZS	
10918	Information technology—Digital compression and coding of continuous-tone still images	4473	Information technology—Digital compression and coding of continuous-tone still images
10918-1	Part 1: Requirements and guidelines	4473.1	Part 1: Requirements and guidelines

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INTRODUCTION

The purpose of this International Standard is to define multimedia and application specific types and their associated routines using the user-defined features in ISO/IEC 9075.

This document is based on the content of ISO/IEC International Standard Database Language (SQL).

The organization of this part of ISO/IEC 13249 is as follows:

1) Clause 1, "Scope", specifies the scope of this part of ISO/IEC 13249.
2) Clause 2, "Normative references", identifies additional standards that, through reference in this part of ISO/IEC 13249, constitute provisions of this part of ISO/IEC 13249.
3) Clause 3, "Definitions, notations, and conventions", defines the notations and conventions used in this part of ISO/IEC 13249.
4) Clause 4, "Concepts", presents concepts used in the definition of this part of ISO/IEC 13249.
5) Clause 5, "Still Image Types", defines the still image user-defined types and associated routines.
6) Clause 6, "Feature Types", defines the user-defined types provided for the manipulation of still image features.
7) Clause 7, "SQL/MM Still Image Information Schema" defines the SQL/MM Still Image Information Schema.
8) Clause 8, "SQL/MM Still Image Definition Schema" defines the SQL/MM Still Image Definition Schema.
9) Clause 9, "Status Codes", defines the SQLSTATE codes used in this part of ISO/IEC 13249.
10) Clause 10, "Conformance", defines the criteria for conforming to this part of ISO/IEC 13249.
11) Annex A, "Implementation-defined elements", is an informative Annex. It lists those features for which the body of this part of ISO/IEC 13249 states that the syntax or meaning or effect on the database is partly or wholly implementation-defined, and describes the defining information that an implementer shall provide in each case.
12) Annex B, "Implementation-dependent elements", is an informative Annex. It lists those features for which the body of this part of ISO/IEC 13249 states explicitly that the meaning or effect on the database is implementation-dependent.

AUSTRALIAN STANDARD

Information technology—Database languages—SQL multimedia and application packages

Part 5:
Still image

1 Scope

This part of ISO/IEC 13249:

a) introduces the still image part of ISO/IEC 13249 (all parts);

b) gives the references necessary for this part of ISO/IEC 13249;

c) defines notations and conventions specific to this part of ISO/IEC 13249;

d) defines concepts specific to this part of ISO/IEC 13249;

e) defines the still image user-defined types and their associated routines.

The still image user-defined types defined in this part of ISO/IEC 13249 adhere to the following.

— A still image user-defined type is generic to image handling. It addresses the need to store, manage and retrieve information based on aspects of inherent image characteristics such as height, width and format and based on image features such as average color, color histogram, positional color and texture. It also addresses the need to employ manipulation such as rotation, scaling, as well as similarity assessment.

— A still image user-defined type does not redefine the database language SQL directly or in combination with another still image data type.

The still image user-defined types are applicable to all different image formats. However, not all functionality can be used with all known still image formats.

An implementation of this part of ISO/IEC 13249 may exist in environments that also support information and content management, decision support, data mining and data warehousing systems.

Application areas addressed by implementations of this part of ISO/IEC 13249 include, but are not restricted to, graphics, multimedia, scientific research and medicine.