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**Information technology — Database  
languages — SQL Technical Reports —**

**Part 5:  
Row Pattern Recognition in SQL**

*Technologies de l'information — Langages de base de données — SQL  
Rapport techniques —*

*Partie 5: Reconnaissance de formes de lignes dans SQL*

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 32, *Data management and interchange*.

A list of all the parts in the ISO 19075 series, can be found on the ISO website.

## Introduction

This Technical Report discusses the syntax and semantics for recognizing patterns in rows of a table, as defined in [ISO9075-2].

[ISO9075-2] defines two features regarding row pattern recognition:

- Feature R010, “Row pattern recognition: FROM clause”
- Feature R020, “Row pattern recognition: WINDOW clause”

These two features have considerable syntax and semantics in common, the principle difference being whether the syntax is placed in the FROM clause or in the WINDOW clause.

The organization of this Technical Report is as follows:

- 1) [Clause 1, “Scope”](#), specifies the scope of this Technical Report.
- 2) [Clause 2, “Normative references”](#), identifies standards that are referenced by this Technical Report.
- 3) [Clause 3, “Row pattern recognition: FROM clause”](#), discusses Feature R010, “Row pattern recognition: FROM clause”.
- 4) [Clause 4, “Expressions in MEASURES and DEFINE”](#), discusses scalar expression syntax in row pattern matching.
- 5) [Clause 5, “Row pattern recognition: WINDOW clause”](#), discusses Feature R020, “Row pattern recognition: WINDOW clause”. [Clause 5, “Row pattern recognition: WINDOW clause”](#), does not duplicate material already presented in [Clause 3, “Row pattern recognition: FROM clause”](#) and [Clause 4, “Expressions in MEASURES and DEFINE”](#), which should be read even if the reader is only interested in Feature R020, “Row pattern recognition: WINDOW clause”.
- 6) [Clause 6, “Pattern matching rules”](#), discusses the formal rules of pattern matching.



## **Information technology — Database languages — SQL Technical Reports —**

Part 5:

### **Row Pattern Recognition in SQL**

#### **1 Scope**

This Technical Report discusses the syntax and semantics for recognizing patterns in rows of a table, as defined in [ISO9075-2].

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## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

### 2.1 ISO and IEC standards

[ISO9075-2] ISO/IEC 9075-2:2016, *Information technology — Database languages — SQL — Part 2: Foundation (SQL/Foundation)*.

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