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

**Part 1:
XQuery Regular Expression Support in
SQL**

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

Partie 1: Support d'expressions régulières de XQuery en SQL



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Published in Switzerland

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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.

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The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard (“state of the art”, for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

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ISO/IEC TR 19075-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

ISO/IEC TR 19075 consists of the following parts, under the general title *Information technology — Database languages — SQL Technical Reports*:

— *Part 1: XQuery Regular Expression Support in SQL*

Introduction

The organization of this part of ISO/IEC TR 19075 is as follows:

- 1) Clause 1, “Scope”, specifies the scope of this part of ISO/IEC TR 19075.
- 2) Clause 2, “XQuery regular expressions”, explains how XQuery regular expressions are formed.
- 3) Clause 3, “Operators using regular expressions”, explains how the SQL operators use regular expressions.

Information technology — Database languages — SQL Technical Reports —**Part 1:****XQuery Regular Expression Support in SQL****1 Scope**

This Technical Report describes the regular expression support in SQL adopted from the regular expression syntax of [XQuery F&O], which is derived from Perl. This Technical Report discusses five operators using this regular expression syntax:

- LIKE_REGEX predicate, to determine the existence of a match to a regular expression.
- OCCURRENCES_REGEX numeric function, to determine the number of matches to a regular expression.
- POSITION_REGEX function, to determine the position of a match.
- SUBSTRING_REGEX function, to extract a substring matching a regular expression.
- TRANSLATE_REGEX function, to perform replacements using a regular expression.