
**Information technology — Guidance
for the use of database language
SQL —**

Part 9:
**Online analytic processing (OLAP)
capabilities (Guide/OLAP)**

*Langages de bases de données utilisés dans les technologies de
l'information — Recommandations pour l'utilisation du langage de
base de données SQL —*

*Partie 9: Capacités de traitement analytique en ligne (OLAP), (Guide/
OLAP)*





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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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Introduction

This document discusses the syntax and semantics for including online analytic processing (OLAP) capabilities in SQL, as defined in ISO/IEC 9075-2.

The organization of this document is as follows:

- 1) **Clause 1, “Scope”**, specifies the scope of this document.
- 2) **Clause 2, “Normative references”**, identifies standards that are referenced as part of requirements by this document.
- 3) **Clause 3, “Terms and definitions”**, defines the terms and definitions used in this document.
- 4) **Clause 5, “Windows”**, discusses Feature T611, “Elementary OLAP operations” and Feature T612, “Advanced OLAP operations”, introducing the concept of a window in an SQL query.
- 5) **Clause 6, “Window functions”**, further discusses Feature T611, “Elementary OLAP operations” and Feature T612, “Advanced OLAP operations”, as well as Feature T614, “NTILE function”, Feature T615, “LEAD and LAG functions”, Feature T616, “Null treatment option for LEAD and LAG functions”, Feature T617, “FIRST_VALUE and LAST_VALUE functions”, and Feature T618, “NTH_VALUE function”.
- 6) **Clause 7, “Nested window functions”**, discusses the additional window functionality in Feature T619, “Nested window functions”.
- 7) **Clause 8, “Enhanced aggregate functions”**, discusses Feature T621, “Enhanced numeric functions” and its introduction of enhanced aggregate functions in SQL.

Information technology — Guidance for the use of database language SQL —

Part 9:

Online analytic processing (OLAP) capabilities (Guide/OLAP)

1 Scope

This document discusses the syntax and semantics for including online analytic processing (OLAP) capabilities in SQL, as defined in [ISO/IEC 9075-2](#).

It discusses the following features regarding OLAP capabilities of the SQL language:

- Feature T611, “Elementary OLAP operations”,
- Feature T612, “Advanced OLAP operations”,
- Feature T614, “NTILE function”,
- Feature T615, “LEAD and LAG functions”,
- Feature T616, “Null treatment option for LEAD and LAG functions”,
- Feature T617, “FIRST_VALUE and LAST_VALUE functions”,
- Feature T618, “NTH_VALUE function”,
- Feature T619, “Nested window functions”,
- Feature T620, “WINDOW clause: GROUPS option”,
- Feature T621, “Enhanced numeric functions”

2 Normative references

There are no normative references in this document.