

# SAP NetWeaver Enterprise Search SearchTerms Query Language



## Applies to:

SAP NetWeaver Enterprise Search 7.20. For more information, visit the [Search homepage](#).

## Summary

This document describes the Enterprise Search query language SearchTerms.

**Author:** Erika Fonseca de Lima

**Company:** SAP AG

**Created on:** 7 April 2010

## Author Bio

Erika Fonseca de Lima is a member of the Enterprise Search development team at SAP in Walldorf, Germany, where she is responsible for search query processing.

## Table of Contents

Overview .....	3
SearchTerms Syntax Description .....	4
Query Operators .....	4
Scope Information .....	4
Search Expression .....	4
Non-attribute Search Expression .....	5
Attribute Search Expression.....	5
Combining Non-attribute and Attribute Search Expressions .....	7
Sorting Information.....	7
Copyright.....	8

## Overview

SAP NetWeaver Enterprise Search 7.20 includes the SearchTerms syntax for building search queries. These may include single words, phrases, and Boolean expressions. Queries may also specify the search scope, i.e., content sources to be searched, as well as attributes associated with certain search scopes.

## SearchTerms Syntax Description

A SearchTerms query consists of a *search expression*, optionally preceded by *query operators* and *scope information* and optionally followed by *sorting information*. These query elements are described below.

### Query Operators

SearchTerms supports the following query operators:

**timeout:** the time-out operator 'timeout:' is followed by an integer denoting the number of seconds allowed to elapse before search results are presented. Results from data sources that are not returned within the specified number of seconds are not included in the result set.

Example:

- a. timeout:2 sap netweaver

*Search for the terms 'sap' and 'netweaver' and display results from data sources that returned results within a two second time period.*

**allfuzzy:** if the query includes the operator 'allfuzzy', search terms in the query are matched approximately, i.e., the search engine will also match terms that are similar to given search terms.

Example:

- a. allfuzzy: meyer schmitt

*Search for the terms 'meyer' and 'schmitt' as well as similar terms.*

**allstem:** if the query includes the operator 'allstem', the query also matches related terms sharing the stem<sup>1</sup> of the given query terms.

Example:

- a. allstem: develop

*Search for the terms 'develop' and terms sharing the same linguistic stem such as 'develops'.*

### Scope Information

The scope information constraints the search to specific search providers. Scope information is introduced by the scope keywords 'connector:', 'category:', 'template:' or 'keyword:', referring to a search connector, category, template, or keyword, respectively. Scope keywords are followed by a scope identifier. In case of templates and connectors, the scope identifier is optionally followed by a *request identifier*. A request identifier refers to a specific search request within a template or connector. If the request identifier is omitted, the default request is assumed.

Examples:

- b. category:Files sap netweaver

*Search within the scope defined by the category 'Files' for the terms 'sap' and 'netweaver'*

- c. connector:BCE000~ERP\_PRODUCT~:DEFAULT crank set

*Search within the scope defined by the search connector BCE000~ERP\_PRODUCT~ and request DEFAULT for the terms 'crank' and 'set'*

### Search Expression

A search expression may consist of non-attribute and attribute expressions, attribute type expressions or a combination thereof as specified below.

---

<sup>1</sup>A *stem* is the part of a word that is common to all its inflected forms, i.e., the words 'develop', 'develops' share the same stem 'develop'.

## Non-attribute Search Expression

Non-attribute expressions do not constrain the search to specific attributes in the data. They may consist of single or multiple terms, phrase search, Boolean expressions over search terms and wildcard search.

### Single and Multiple Terms

Examples:

- a. Paris

*Search within all scopes for the term 'Paris'*

- b. connector:QPT004~BUS1006\$1~ Paris

*Search within the search connector QPT004~BUS1006\$1~ for the term 'Paris'*

- c. connector:QPT004~BUS1006\$1~ sap netweaver

*Search within the connector QPT004~BUS1006\$1~ for the terms 'sap' and 'netweaver'*

### Phrases

Multiple terms may be enclosed in quotes denoting a *phrase*; in phrase search all of the terms in the search expression must appear in the data and must be adjacent to each other in the order of the search expression.

Example:

"sap netweaver"

*Search within all scopes for the term 'sap' immediately followed by the term 'netweaver'.*

### Booleans

Multiple terms may be combined with the Boolean operators AND, OR, and NOT. The operator AND has higher precedence than OR. Parentheses may be used to clarify the order of operations.

Example:

- a. dynpro OR screen
- b. web NOT dynpro
- c. web AND (dynpro OR application)

### Wildcards

Terms may include wildcards; an asterisk '\*' denotes a character string, while a question mark '?' denotes a single character.

Example:

Internat\*

*Search for tokens that begin with 'Internat'.*

## Attribute Search Expression

An attribute search expression is introduced by an *attribute keyword* consisting of an attribute name followed by a colon. The attribute keyword is followed by a single term or multiple terms to be searched for. An attribute keyword may be modified by an *attribute relation* further specifying the relationship between the attribute and the search terms. In an attribute search expression, multiple terms are enclosed in parentheses or quotes in case of phrases.

## Single and Multiple Argument Terms

Examples:

- a. connector:QPT004~BUS1006\$1~ city:york

*Search within connector QPT004~BUS1006\$1~ for data with 'york' in its attribute 'city'.*

- b. connector:QPT004~BUS1006\$1~ name:(business international)

*Search within connector QPT004~BUS1006\$1~ for data whose attribute 'name' contains the terms 'international' and 'business'.*

## Phrases

Multiple terms in attribute search expressions may be enclosed in quotes denoting a phrase.

Example:

connector:QPT004~BUS1006\$1~ name:"international business"

*Search within connector QPT004~BUS1006\$1~ for data whose attribute 'name' contains the phrase "international business".*

## Booleans

Multiple terms in attribute search expressions may be combined with the Boolean operators AND, OR and NOT.

Example:

connector:QPT004~BUS1006\$1 city:(paris OR nancy)

*Search within connector QPT004~BUS1006\$1~ for data with 'paris' or 'nancy' in its attribute 'city'.*

## Attribute Relation

An attribute relation further specifies the relationship between the attribute and search terms. An attribute relation may consist of '=' (equal), '<>' (not equal), '<' (less than), '<=' (less than or equal), '>' (greater than), '>=' (greater than or equal), 'bt:' (between), 'nb:' (not between), 'cp:' (matches pattern), 'np:' (does not match pattern). The relations 'bt:' and 'nb:' are *range relations*.

In case an attribute keyword is modified by an attribute relation, the search terms following the modifier do not contain Booleans operators or phrases. In case of range relations, a *search term range* follows the relation modifier, consisting of search terms enclosed in parentheses and separated by a semicolon.

Examples:

- a. connector:QPT004~BUS1006\$1 city:=york

*Search within connector QPT004~BUS1006\$1~ for data whose attribute 'city' is equal to the term 'york'*

- b. connector:QPT004~BUS1006\$1 city:<>york

*Search within connector QPT004~BUS1006\$1~ for data with attribute 'city' not equal to 'york'*

- c. connector:QPT004~BUS1006\$1 telfx:>= 1234567 AND telfx:<9999999

*Search within connector QPT004~BUS1006\$1~ for data with attribute 'telfx' greater than or equal to 1234567 and less than 9999999*

- d. connector:QZA100~MATERIAL~ matr:bt:(P100;P300)

*Search within connector QZA100~MATERIAL~ for data with attribute 'material number' between P100 and P300*

### Boolean Attribute Search Expression

Attribute search expressions may be combined with the Boolean operators AND, OR, and NOT.

Examples:

- a. connector:QPT004~BUS1006\$1 city:Paris OR name: BMW
- b. connector:QPT004~BUS1006\$1 city:Paris AND (country:Holland OR name:BMW)

### Combining Non-attribute and Attribute Search Expressions

If non-attribute and attribute search expressions are combined within the same query, all terms involving attribute search must follow the non-attribute terms.

Example:

- a. category:BusinessPartner bmw city:Paris

*Search within the category 'BusinessPartner' for data containing the term 'bmw anywhere and 'paris' in its attribute 'city.'*

So for example, the following query is invalid, since attribute terms do not follow non-attribute search terms:  
category:BusinessPartner city:(Paris OR New York) BMW

### Sorting Information

SearchTerms queries may optionally contain information on how to sort the result set returned for the query. Sorting information consist of the keywords 'sort-ascending' or 'sort-descending' for sorting in ascending and descending order respectively, followed by an attribute name used as a key on which to sort the result set.

Example:

connector:QPT004~BUS1006\$1BMW sort-ascending:city

*Search within connector QPT004~BUS1006\$1~ for the term 'BMW' and sort the results in ascending order using the attribute 'city' as key.*

## Copyright

© Copyright 2010 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP Business ByDesign, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects S.A. in the United States and in other countries. Business Objects is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.