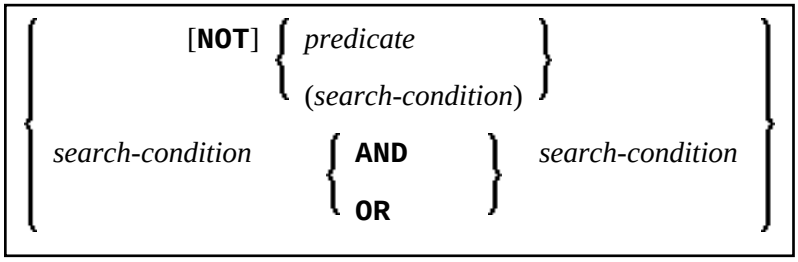
Search Condition



This chapter covers the following topics:

- Search Condition
- Predicate

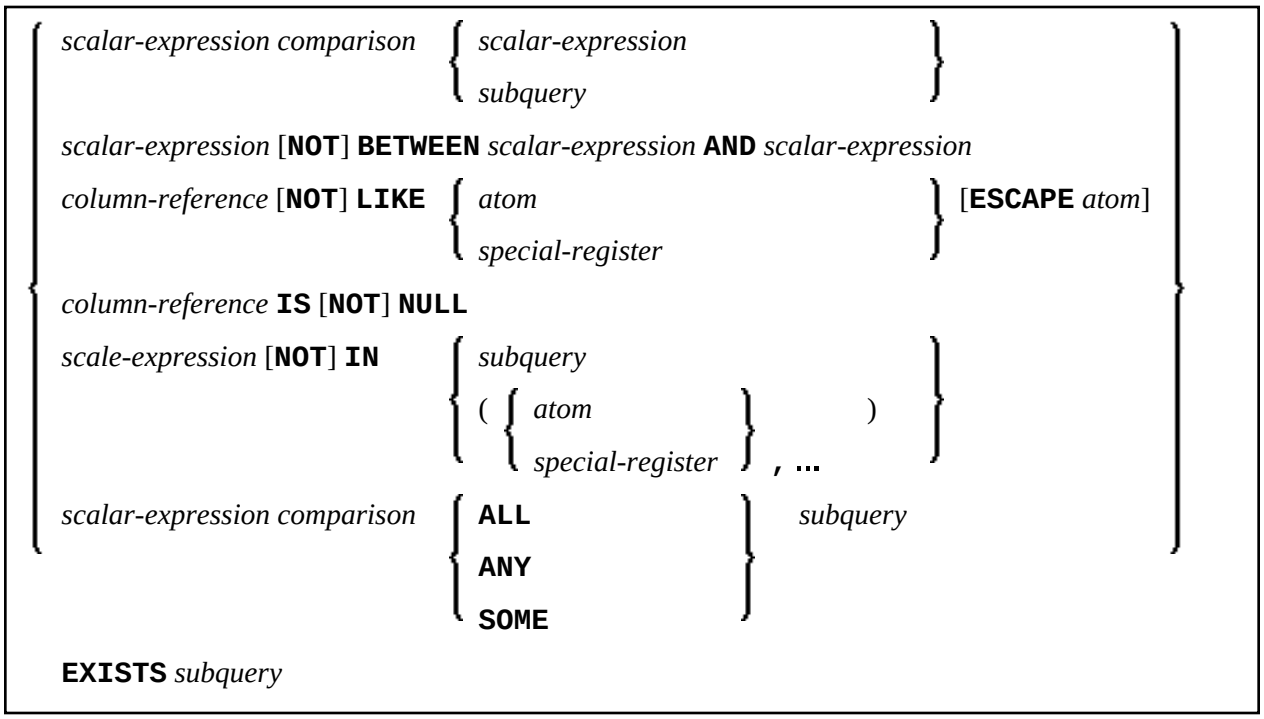
Search Condition

A *search-condition* can consist of a simple *predicate* or of multiple *search-conditions* combined with the Boolean operators AND, OR and NOT, and parentheses if required to indicate a desired order of evaluation.

Example

```
DEFINE DATA LOCAL
01 NAME   (A20)
01 AGE    (I2)
END-DEFINE
...
SELECT *
  INTO NAME, AGE
  FROM SQL-PERSONNEL
  WHERE AGE = 32 AND NAME > 'K'
END-SELECT
...
```

Predicate



A *predicate* specifies a condition that can be "true", "false" or "unknown".

In a *search-condition*, a *predicate* can consist of a simple or complex comparison operation or other kinds of conditions.

Example:

```
SELECT NAME, AGE
  INTO VIEW PERS
  FROM SQL-PERSONNEL
  WHERE AGE BETWEEN 20 AND 30
    0R AGE IN ( 32, 34, 36 )
    AND NAME LIKE '%er'
    ...
```

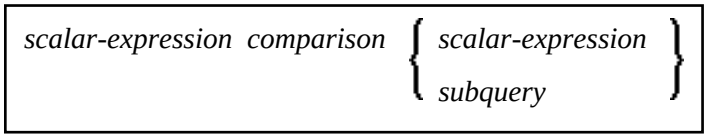
Note:
The percent sign (%) may conflict with Natural terminal commands. If so, you must define a terminal command control character different from %.

The individual predicates are explained in the following topics (for further information on predicates, please refer to the relevant literature). According to the syntax above, they are called as follows:

- Comparison Predicate
- BETWEEN Predicate
- LIKE Predicate
- NULL Predicate
- IN Predicate

- Quantified Predicate
- EXISTS Predicate

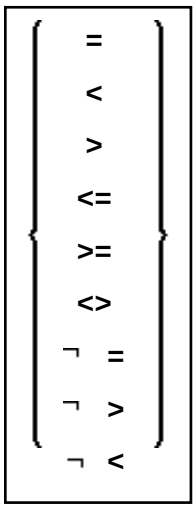
Comparison Predicate



A comparison predicate compares two values.

See information on *scalar-expression*.

Comparison



comparison can be any of the following operators:

=	equal to
<	less than
>	greater than
<=	less than or equal to
>=	greater than or equal to
<>	not equal to
¬ =	not equal to
¬ >	not greater than
¬ <	not less than

Subquery

(*select-expression*)

A *subquery* is a *select-expression* that is nested inside another such expression.

Example:

```
DEFINE DATA LOCAL
1 #NAME    (A20)
1 #PERSNR  (I4)
END-DEFINE
...
SELECT NAME, PERSNR
  INTO #NAME, #PERSNR
  FROM SQL-PERSONNEL
  WHERE PERSNR IN
    ( SELECT PERSNR
        FROM SQL-AUTOMOBILES
        WHERE COLOR = 'black' )
        ...
END-SELECT
```

For further information, see *Select Expressions*.

BETWEEN Predicate

scalar-expression [**NOT**] **BETWEEN** *scalar-expression* **AND** *scalar-expression*

A BETWEEN predicate compares a value with a range of values.

See information on *scalar-expression*.

LIKE Predicate

column-reference [**NOT**] **LIKE** { *atom* | *special-register* } [**ESCAPE** *atom*]

A LIKE predicate searches for strings that have a certain pattern.

See information on *column-reference*, *atom* and *special-register*.

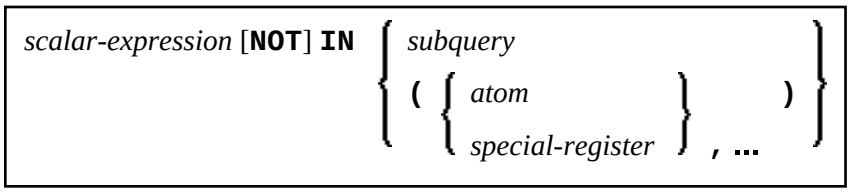
NULL Predicate

column-reference **IS** [**NOT**] **NULL**

A NULL predicate tests for null values.

See information on *column-reference*.

IN Predicate

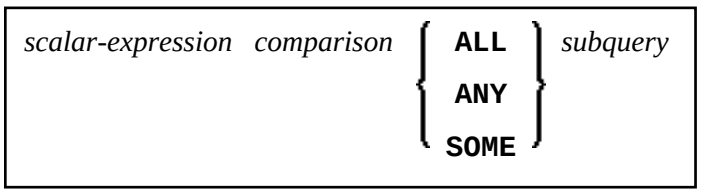


An `IN` predicate compares a value with a collection of values.

See information on *scalar-expression*, *atom* and *special-register*.

See information on *subquery*.

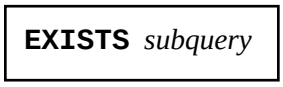
Quantified Predicate



A quantified predicate compares a value with a collection of values.

See information on *scalar-expression*, *comparison*, and *subquery*.

EXISTS Predicate



An `EXISTS` predicate tests for the existence of certain rows.

The `EXISTS` predicate evaluates to true only if the result of evaluating the *subquery* is not empty; that is, if there exists at least one record (row) in the `FROM` table of the *subquery* satisfying the search condition of the `WHERE` clause of this *subquery*.

Example of `EXISTS`:

```
DEFINE DATA LOCAL
1 #NAME    (A20)
END-DEFINE
...
SELECT NAME
  INTO #NAME
  FROM SQL-PERSONNEL
  WHERE EXISTS
    ( SELECT *
      FROM SQL-EMPLOYEES
      WHERE PERSNR > 1000
```

```
        AND NAME < 'L' )
        ...
END-SELECT
...
```

See information on *subquery*.