

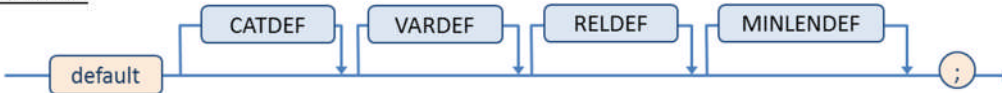
Metasafe – erSQL Query Syntax

Query

QUERY:

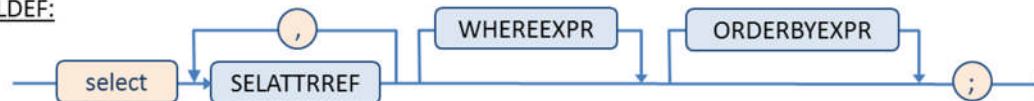


DEFAULTDEF:

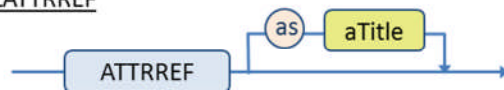


Select Attributes

SELDEF:



SELATTRREF

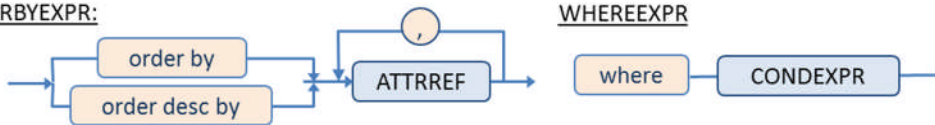


ATTRREF:

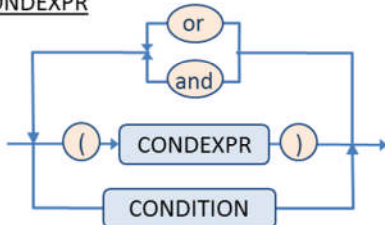


Where and Order-Clause

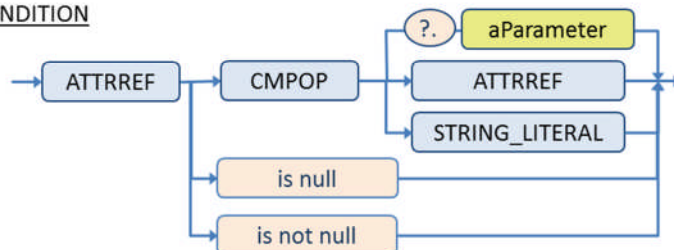
ORDERBYEXPR:



CONDEXPR

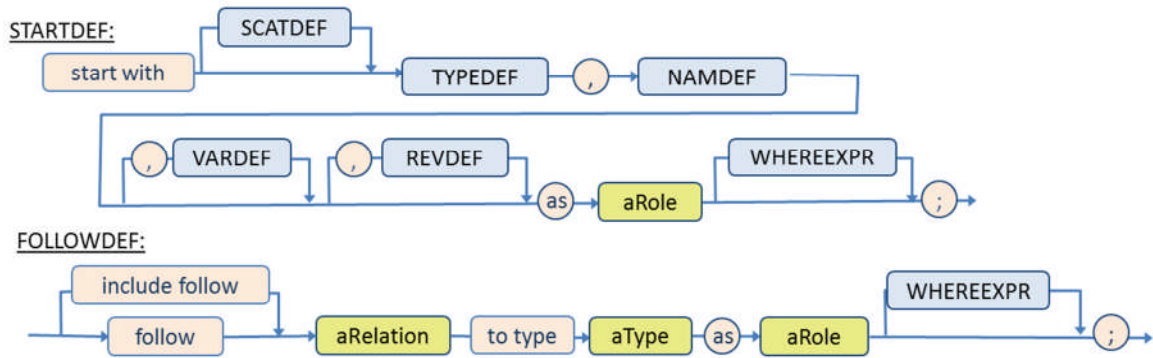


CONDITION

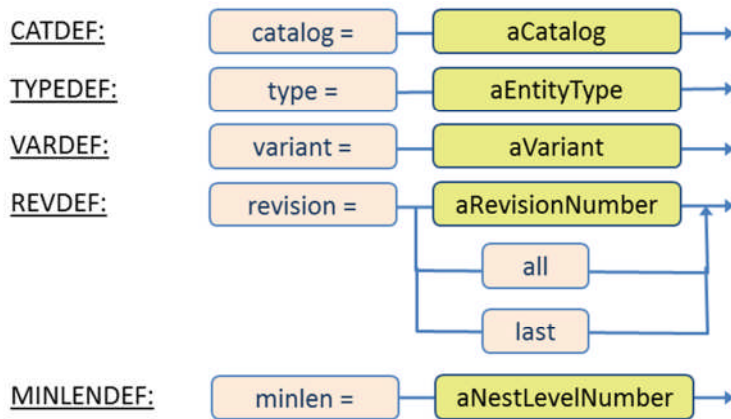


CMPOP: = | < | > | >= | < | <= | like | not like

Start and Follow

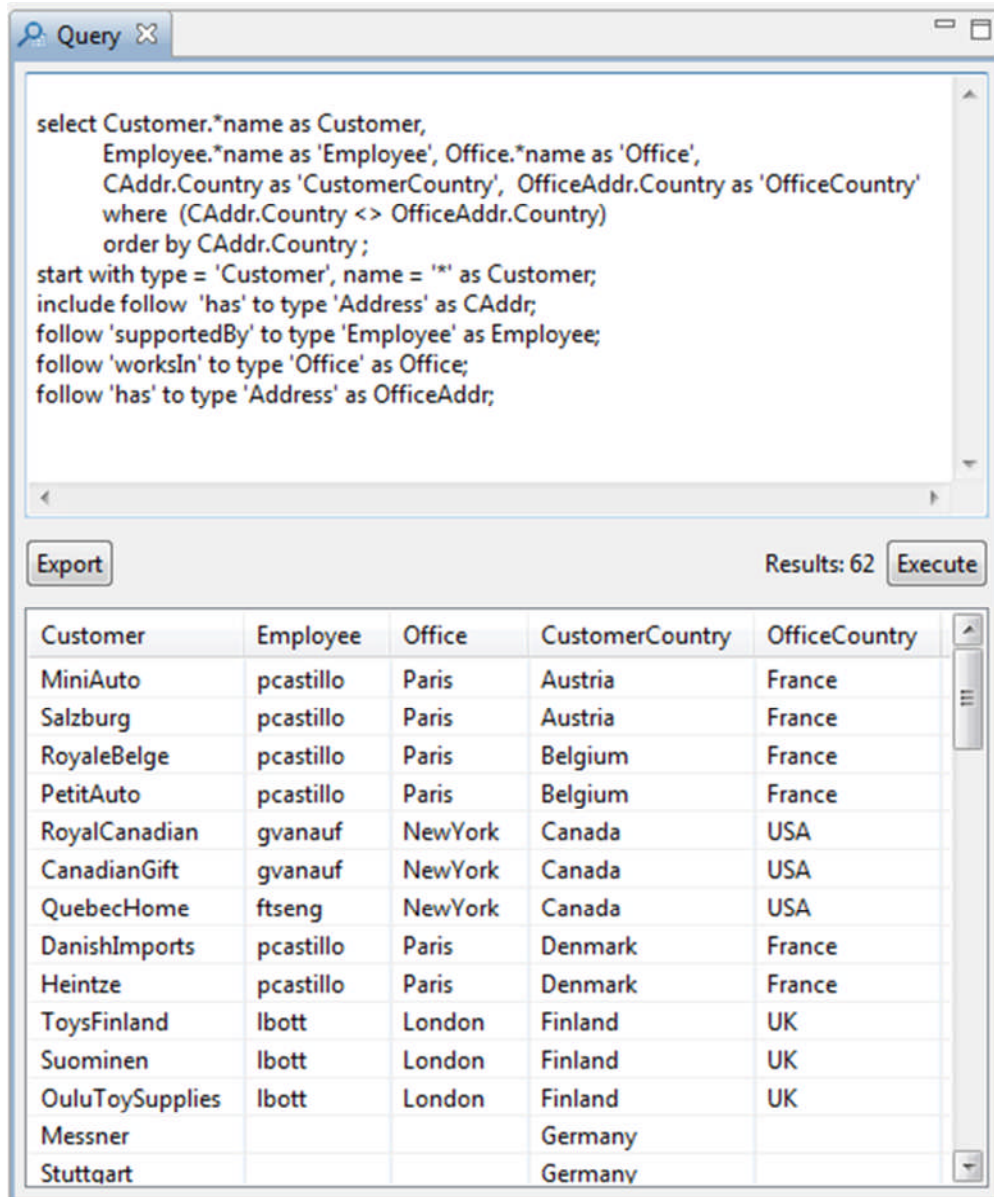


Misc Definitions



Note: Type Strings as defined here, lower case and with exactly ONE space between words.

Example: erSQL-Query used in metaEditor Query-View



The screenshot shows a window titled "Query" with a text area containing an erSQL query. Below the text area are buttons for "Export" and "Execute", and a status bar indicating "Results: 62". The results are displayed in a scrollable table with five columns: Customer, Employee, Office, CustomerCountry, and OfficeCountry.

```
select Customer.*name as Customer,  
       Employee.*name as 'Employee', Office.*name as 'Office',  
       CAddr.Country as 'CustomerCountry', OfficeAddr.Country as 'OfficeCountry'  
where (CAddr.Country <> OfficeAddr.Country)  
order by CAddr.Country;  
start with type = 'Customer', name = '*' as Customer;  
include follow 'has' to type 'Address' as CAddr;  
follow 'supportedBy' to type 'Employee' as Employee;  
follow 'worksIn' to type 'Office' as Office;  
follow 'has' to type 'Address' as OfficeAddr;
```

Customer	Employee	Office	CustomerCountry	OfficeCountry
MiniAuto	pcastillo	Paris	Austria	France
Salzburg	pcastillo	Paris	Austria	France
RoyaleBelge	pcastillo	Paris	Belgium	France
PetitAuto	pcastillo	Paris	Belgium	France
RoyalCanadian	gvanauf	NewYork	Canada	USA
CanadianGift	gvanauf	NewYork	Canada	USA
QuebecHome	ftseng	NewYork	Canada	USA
DanishImports	pcastillo	Paris	Denmark	France
Heintze	pcastillo	Paris	Denmark	France
ToysFinland	lbott	London	Finland	UK
Suominen	lbott	London	Finland	UK
OuluToySupplies	lbott	London	Finland	UK
Messner			Germany	
Stuttgart			Germany	

Notice: The Query returns a table of typed attributes. The result is displayed here as a scrollable table. It can be exported to Excel.

Example – erSQL Query invoked from Java

```
package net.metasafe.api;

import net.metasafe.api.RepositoryManager.SessionAccess;

public class ERSQLEDemo {
    public static void main(String[] args) throws Exception {
        Session session = null;
        try {
            // open repository session
            session = RepositoryManager.getInstance().openSession("cars","Murphy", "Sales", "cars",
                SessionAccess.SHARED);

            // create query object
            ERSQLQuery esql = new ERSQLQuery(session);

            // statement string
            String stmt = "select Customer.*name as 'Customer',"
                + "Employee.*name as 'Employee', Office.*name as 'Office',"
                + "CAddr.Country as 'CustomerCountry', OfficeAddr.Country as 'OfficeCountry'"
                + "where (CAddr.Country <> OfficeAddr.Country) order by CAddr.Country ;"
                + "start with type = 'Customer', name = '*' as Customer;"
                + "include follow 'has' to type 'Address' as CAddr;"
                + "follow 'supportedBy' to type 'Employee' as Employee;"
                + "follow 'worksIn' to type 'Office' as Office;"
                + "follow 'has' to type 'Address' as OfficeAddr;";

            // perform query
            esql.prepareStatement(stmt);
            QueryResultTable res = esql.executeQuery();

            // output result header
            for (int i = 0; i < res.getNumberOfColumns(); i++)
                System.out.print(res.getColumnDisplayName(i) + " ");
            System.out.println("\n");

            // output result data
            for (int i = 0; i < res.getNumberOfRows(); i++) {
                for (int t = 0; t < res.getNumberOfColumns(); t++)
                    System.out.print(res.getData(i, t) + " ");
                System.out.println();
            }

        } finally {
            // closing the session
            if (session != null)
                session.close();
        }
    }
}
```

Generated Output:

```
Customer Employee Office CustomerCountry OfficeCountry
MiniAuto pcastillo Paris Austria France
Salzburg pcastillo Paris Austria France
RoyaleBelge pcastillo Paris Belgium France
etc.....
```