

ODBC Access Masks

Description of the ODBC access mask xml file for Visplore.

Access Mask <odbc_access_mask>

The Access Mask describes how the Data is imported from the given ODBC source and defines how the importer GUI will look. May contain Categorical Row Filters, Timespan Row Filters, a Limit Row Filter, or a Column Filter.

Mandatory parameters:

- "id" = internal access mask id
- "name" = caption used for GUI
- "odbcsource" = DSN string for ODBC connection
- "database" = name of the database
- "viewname" = name of the database view

Optional parameters:

- "schema" = database schema in which the view is
- "order_by_asc" = column name by which the results should be sorted ascending order
- "order_by_desc" = column name by which the results should be sorted in descending order
- "category_combinations_view" = the name of an optional additional view, which is used to query the available categorical options for the categorical row filters
- "use_caching" = set to "yes" if categorical filter options should be cached, and "no" if categorical filter options should be updated dynamically (also affects the GUI: an "Update" button is shown if "use_caching" = yes)

Optional xml parts (described below):

Categorical Row Filter <categoricalrowfilter>	1
Timespan Row Filter <timespanrowfilter>	2
Row Filter <rowfilter>	2
Columns <columns>	3
Database column <column>	3
Example of an ODBC Access Mask	4

Categorical Row Filter <categoryrowfilter>

Gives categorical filtering options, i.e. the WHERE part of the SQL query.

Mandatory parameters:

- "id" = internal filter id-
- "dbcolumnname" = name of the database column
- "dbcolumnntype" = data type of the database column: string, value, datetime

Optional parameters:

- "caption" = caption which is displayed in the GUI; default: database column name
- "mandatory" = boolean, which defines if the filter is mandatory; default false
- "multiselection" = boolean, which defines if multiselection is allowed; default true

Timespan Row Filter <timespanrowfilter>

Gives timespan filtering options, i.e. the WHERE part of the SQL query. The date/time may be specified in absolute terms or in relative terms (e.g. X intervals before today)

Mandatory parameters:

- "id" = internal filter id
- "dbcolumnname" = name of the database column

Optional parameters:

- "caption" = caption which is displayed in the GUI; default: database column name
- "dbcolumnntype" = data type of the database column; default datetime (no other type allowed anyways)
- "mandatory" = boolean, which defines if the filter is mandatory; default false
- "specification" = allowed ways of specifying the timespan: "absolute", "relative", "absolute_or_relative"; default: "absolute_or_relative"

Row Filter <rowfilter>

Limits the number of result rows.

Optional parameters:

- "rowlimitmandatory" = boolean, which defines if the filter is mandatory; default false
- "defaultrowlimit" = default maximalrowlimit or none

- "maximalrowlimit"

Columns <columns>

Filters the columns which are selected from the database. Has no parameter, only contains its columns.

Database column <column>

Mandatory parameters:

- "dbcolumnname" = name of the database column

Optional parameters:

- "optional" = boolean, which defines if the user may select or deselect this column (mandatory columns always be imported anyways)
- "caption" = caption which is displayed in the GUI; default: database column name
- "default_type" = the Visplore data type initially assumed for this data column. However, user-specified overrides from the dialog will be persisted in the user settings, and supersede this parameter.

Example of ODBC Access Masks

Example 1

```
<odbc_access_mask id="access_mask_mssql_open_pv" name="MSSQL Test Access Mask OPEN PV" odbcsource="Microsoft SQL Visplore"
database="master" viewname="open_pv_with_models_semicolon_separated" schema="dbo" order_by_asc="DateTime" use_caching="no">
  <categoricalrowfilter id="Peak_Wind_Direction_SunnyCity_Weather" caption="Peak_Wind_Direction_SunnyCity_Weather" mandatory="no"
multiselection="yes" dbcolumnname="Peak_Wind_Direction_SunnyCity_Weather" dbcolumnntype="string"/>
  <timespanrowfilter id="DateTime" caption="DateTime" mandatory="no" dbcolumnname="DateTime" dbcolumnntype="datetime"
specification="absolute_or_relative"/>
  <rowfilter rowlimitmandatory="no" defaultrowlimit="100000" maximalrowlimit="1000000"/>
  <columns>
    <column dbcolumnname="DateTime" optional="no" caption="DateTime"/>
    <column dbcolumnname="Peak_Wind_Direction_SunnyCity_Weather" optional="no" caption="Peak_Wind_Direction_SunnyCity_Weather"/>
    <column dbcolumnname="Temperature_Outdoor_Fantasytown_Weather" optional="yes" caption="Temperature_Outdoor_Fantasytown_Weather"/>
    <column dbcolumnname="Temperature_Outdoor_SunnyCity_Weather" optional="yes" caption="Temperature_Outdoor_SunnyCity_Weather"/>
    <column dbcolumnname="Temperature_Outdoor_Happyville_Weather" optional="yes" caption="Temperature_Outdoor_Happyville_Weather"/>
    <column dbcolumnname="Temperature_Outdoor_Eastwood_Weather" optional="yes" caption="Temperature_Outdoor_Eastwood_Weather"/>
    <column dbcolumnname="Temperature_Outdoor_BrightCounty_Weather" optional="yes" caption="Temperature_Outdoor_BrightCounty_Weather"/>
  </columns>
</odbc_access_mask>
```

Example 2

```
<odbc_access_mask id="SolarMySQL" name="SolarSQL" odbcsource="MySQL" database="visplore" viewname="open_pv_with_models_v2"
order_by="DateTime">
  <timespanrowfilter id="DateTime" caption="DateTime" mandatory="no" dbcolumnname="DateTime" dbcolumnntype="datetime"
specification="absolute_or_relative"/>
  <categoricalrowfilter id="Peak_Wind_Direction_SunnyCity_Weather" caption="Peak Wind Sunnycity" mandatory="no" multiselection="yes"
dbcolumnname="Peak_Wind_Direction_SunnyCity_Weather" dbcolumnntype="string"/>
  <categoricalrowfilter id="Peak_Wind_Direction_Happyville_Weather" caption="Peak Wind Happyville" mandatory="no" multiselection="yes"
dbcolumnname="Peak_Wind_Direction_Happyville_Weather" dbcolumnntype="string"/>
  <columns use="all">
    <column dbcolumnname="Power_Generation_Eastwood_PV_Model" optional="yes" default_type="Value" />
    <column dbcolumnname="Power_Generation_BrightCounty_PV_Model" optional="yes" default_type="Value" />
  </columns>
</odbc_access_mask>
```