Oracle® Essbase Integration Services
Release 9.3

OLAP Model Document Type Definition (DTD)

For Release 11.1.2.2.100

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# OLAP Model DTD Table

**Version:**  
<?xml version="1.0" encoding=UTF-8?>  
<!--edited with XML Spy v3.0b2 NT (http://www.xmlspy.com)-->

<table>
<thead>
<tr>
<th>DTD Element (&lt;!ELEMENT)/Comment (!--)</th>
<th>Description</th>
<th>Parameters, if Applicable</th>
</tr>
</thead>
</table>
| <!ELEMENT Model (FactView?, ModelDim*, ModelUnreferencedView*, ModelLogicalJoin*, ModelProperty*)> | Indicates that the OLAP model contains a fact table, dimensions, logical joins, and some unreferenced views. | The Model element consists of the following child elements:  
- FactView—Fact view.  
- ModelDim—Dimensions.  
- ModelUnreferencedView—A view that is not linked to a fact view.  
- ModelLogicalJoin—Logical joins.  
- ModelProperty—The properties of the OLAP model component. |

<!--Values for accessCode: 0 = No access for non-owners, 1 = Read access for non-owners, 2 = Read/Write access for non-owners.-->

<ATTLIST Model  
name CDATA #REQUIRED  
desc CDATA #IMPLIED  
accessCode (0 | 1 | 2) "2"  
owner CDATA #IMPLIED  
datasource CDATA #IMPLIED  
version (1.9.0.0.0 | 2.0.0.0.0 | 6.1.0.0.0 | 6.2.0 | 6.5.0 | 6.5.1 | 6.5.2 | 6.5.3 | 6.5.4 | 7.0 | 7.1 | 7.1.2 | 9.0.0 | 9.0.1 | 9.2.0 | 9.3.0 | 11.1.1.0.0 | 11.1.1.1.0 | 11.1.2.0 | 11.1.2.1.0 | 11.1.2.2.000 | 11.1.2.2.100) #REQUIRED>  
| Provides high-level information about an OLAP model, including security and ownership information. | The attributes of the Model element are:  
- name—Each OLAP model must be saved with a valid name.  
- desc (description)—OLAP model descriptions are optional.  
- accessCode—Defines access to the OLAP model:  
  0 = Exclusive Access for the model creator  
  1 = Read-only access for users other than the creator  
  2 = Read/Write access for users other than the creator (default)  
- owner (creator)—The owner of the model.  
- datasource—The name of the data source for the OLAP model.  
- version—Indicates Integration Services Release 1.9, 2.0, 6.1, 6.2, 6.5, 6.5.1, 6.5.2, 6.5.3, 6.5.4, 7.0, 7.1, 7.1.2, 9.0, 9.0.1, 9.2, 9.3, 11.1.1, 11.1.1.1, 11.1.2, 11.1.2.1, 11.1.2.2.000, 11.1.2.2.100 OLAP Metadata Catalog. |
<table>
<thead>
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<th>DTD Element (ELEMENT)/Comment (!--)</th>
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| `<!ELEMENT FactView (ModelViewMember*, ModelPhysicalJoin*)>` | Indicates the fact view for the OLAP model. | The FactView element consists of the following child elements:  
- ModelViewMember—Member of the fact view.  
- ModelPhysicalJoin—Physical join for the fact view. |
| `<!--xCord and yCord are used by EIS Console to identify the location of these views on screens.--->` | | |
| `<!ATTLIST FactView` | Provides OLAP model fact view properties and screen location in Essbase Integration Services Console. | The attributes of the OLAP model Fact table are:  
- name—Fact view must be named.  
- xCord, yCord—These coordinates define the current vertical and horizontal position of the fact view in Integration Services Console. |
| `name CDATA #REQUIRED` | | |
| `xCord CDATA #IMPLIED` | | |
| `yCord CDATA #IMPLIED>` | | |
| `<!ELEMENT ModelLogicalJoin (ModelLogicalJoinDetail*)>` | Indicates logical join information among the views. | The ModelLogicalJoin element contains the ModelLogicalJoinDetail element. |
| `<!ATTLIST ModelLogicalJoin` | Provides information about logical joins between fact view and other views. | The attributes of the ModelLogicalJoin are:  
- view1Name—Name of the view in an OLAP model.  
- view2Name—Name of the view to which the first view is joined. |
| `view1Name CDATA #REQUIRED` | | |
| `view2Name CDATA #REQUIRED>` | | |
| `<!ELEMENT ModelLogicalJoinDetail EMPTY>` | The ModelLogicalJoinDetail element has no child elements. | |
| `<!--member1Name corresponds to member of view1Name, and member2Name corresponds to view2Name.--->` | | |
| `<!ATTLIST ModelLogicalJoinDetail` | Provides information about logical joins between view1Name and view2Name of the ModelLogicalJoin. | The attributes of the ModelLogicalJoinDetail are:  
- member1Name—The name of the first member that corresponds to the view1Name of the ModelLogicalJoin.  
- member2Name—The name of the second member that corresponds to the view2Name of the ModelLogicalJoin. |
<p>| <code>member1Name CDATA #REQUIRED</code> | | |
| <code>member2Name CDATA #REQUIRED&gt;</code> | | |</p>
<table>
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<tr>
<th>DTD Element (ELEMENT)/Comment (!--)</th>
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| `<!ELEMENT ModelDim (ModelView + ModelHierarchy*, ModelProperty*)>` | Indicates information about dimensions within an OLAP model. | The ModelDim (dimension) element consists of the following child elements:  
- ModelView—Identifies a view within an OLAP model.  
- ModelHierarchy—Identifies a hierarchy within an OLAP model dimension.  
- ModelProperty—Identifies properties of the OLAP model dimension component. |
| `<!--Values for modelDimType: 0 = Regular, 1 = Time, 2 = Accounts. There can be only 1 Accounts and 1 Time dimension in an OLAP model.--->` | Provides the name and type of a dimension. | The attributes of the ModelDim (dimension) are:  
- name—Each dimension must have a valid name.  
- modelDimType—the type of dimension. Valid values are:  
  0 = General (Regular, or Standard dimension, any quantity)  
  1 = Time dimension (one only)  
  2 = Accounts dimension (one only) |
| `<!ATTLIST ModelDim` | | |
| name CDATA #REQUIRED | | |
| modelDimType ( 0 | 1 | 2) #REQUIRED> | | |
| `<!ELEMENT ModelView (ModelViewMember*, ModelPhysicalJoin*)>` | Identifies a view within an OLAP model. | The ModelView element consists of the following child elements:  
- ModelViewMember—Identification of a member within a model view.  
- ModelPhysicalJoin—Information about physical joins within a view. |
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<tbody>
<tr>
<td>&lt;!--If a dimension consists of only one view, parentViewName will be equal to FactView.---&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;!--In case of snowflake schemas, one of the views of dimension will have FactView as its parent and it is called the primary view for that dimension.---&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| <!ATTLIST ModelView  
  name CDATA #REQUIRED  
  xCord CDATA #REQUIRED  
  yCord CDATA #REQUIRED  
  parentViewName CDATA #REQUIRED> | Provides the physical join in the source database on which a dimension view is displayed in an OLAP model. | The attributes of the ModelView are:  
  • name—Each dimension must have a valid name.  
  • xCord, yCord—These coordinates define the current vertical and horizontal position of the view in the Integration Services Console.  
  • parentViewName—Name of the primary view for the model view. |
| <!ELEMENT ModelUnreferencedView (ModelViewMember*, ModelPhysicalJoin*, ModelProperty*)> | Identifies an unreferenced view within an OLAP model. Unreferenced views are views that are not joined to the fact view. | The ModelUnreferencedView element consists of the following child elements:  
  • ModelViewMember—Identifies a member within a model view.  
  • ModelPhysicalJoin—Information about physical joins within a view.  
  • ModelProperty—The properties of the OLAP model view component. |
| <!ATTLIST ModelUnreferencedView  
  name CDATA #REQUIRED  
  xCord CDATA #IMPLIED  
  yCord CDATA #IMPLIED> | Provides the name and location of an unreferenced OLAP view. | The attributes of the ModelUnreferencedView are:  
  • name—The unreferenced view must have a valid name.  
  • xCord, yCord—These coordinates define the current vertical and horizontal position of the view in the Integration Services Console. |
| <!ATTLIST ModelPhysicalJoin  
  table1Name CDATA #REQUIRED  
  table2Name CDATA #REQUIRED> | Provides information about physical joins in the source tables. | The attributes of the ModelPhysicalJoin are:  
  • table1Name—Name of the first source table.  
  • table2Name—Name of the source table to which the first source table is joined. |
<p>| &lt;!ELEMENT ModelPhysicalJoinDetail EMPTY&gt; | Indicates physical join detail information. | The ModelPhysicalJoinDetail element has no child elements. |</p>
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</tr>
</thead>
</table>
| !ATTLIST ModelPhysicalJoinDetail  | Provides information about column physical joins in the source tables. | The attributes of the ModelPhysicalJoin detail are:  
- column1Name—Name of the column corresponding to the table1Name of the ModelPhysicalJoin.  
- column2Name—Name of the column corresponding to the table2Name of the ModelPhysicalJoin. |

<!--Values for displayFlag: 0 = Hidden, 1 = Visible -->

<!--aggregateType is valid only for FactView members. For other members it should be <NONE>.-->

<!--The aggregateType value of <NONE> is specified as NONE in the attribute list, as <NONE> is not allowed and gives a syntax error.-->

<!--extractionRule specifies any SQL transformation; for example, Date Transformations, concatenation, substrings etc.-->

<!--Values for drillThroughType: 0 = Not used for drill through reports, 1 = Can be used for drill through reports.-->

<!--dataType _T__Y mapped to <T>+Y and vice-versa. Same rule applies to DATETIME,NUMERIC and Y,Q,M all combinations.-->

<!--drillThroughType: 0 = none, 1 = Drill-Through, 2 = Attribute-Dimension, 3 = both (1 and 2).-->

<table>
<thead>
<tr>
<th>!ELEMENT ModelViewMember (ModelProperty*)&gt;</th>
<th>Indicates member view information within an OLAP model.</th>
<th>The ModelViewMember element contains the ModelProperty element.</th>
</tr>
</thead>
</table>
| !ATTLIST ModelViewMember                  | Provides information about a member view within an OLAP model. | The attributes of the ModelViewMember are:  
- name—The member of the view must have a name.  
- desc (description)—A view description is optional.  
- displayFlag (0 | 1)—Hide or display the member. Valid values are:  
  0 = Hidden in the OLAP model and metaoutline  
  1 = Visible in the OLAP model and metaoutline  
- dataType—_T__Y is mapped to <T>+Y and vice-versa. Same rule applies to DATETIME, NUMERIC and all combinations of Y,Q,M. Valid values are:  
  - Character = <C> [+Y | Q | M | W | D]  
  - Number = <N> [+Y | Q | M | W | D]  
  - Datetime = <T>[+Y | Q | M | W | D] |
| name CDATA #REQUIRED                     | desc CDATA #IMPLIED                                       | name—The member of the view must have a name. |
| displayFlag (0 | 1) "1"                         | dataType (CHAR | NUMERIC | DATETIME | _T__Y | _T__Q | _T__M | _T__W | _T__D |
|                                           | _C__Y | _C__Q | _C__M | _C__W | _C__D | _N__Y |
|                                           | _N__Q | _N__M | _N__W | _N__D ) #REQUIRED | desc (description)—A view description is optional. |
| aggregateType (SUM | AVG | MAX | MIN | COUNT | NONE) "NONE" | displayFlag (0 | 1)—Hide or display the member. Valid values are:  
  0 = Hidden in the OLAP model and metaoutline  
  1 = Visible in the OLAP model and metaoutline |
<p>| physicalTableName CDATA #REQUIRED       | physicalColumnName CDATA #REQUIRED                      | physicalTableName CDATA #REQUIRED |
| extractionRule CDATA #IMPLIED            | drillThroughType (0 | 1 | 2 | 3) &quot;0&quot;&gt;      | drillThroughType (0 | 1 | 2 | 3) &quot;0&quot;&gt; |</p>
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</table>
| <!ATTLIST ModelViewMember (Continued) | | • aggregateType—Used only for the Fact table on the Numeric field. It defines the aggregation type as SUM, AVG, COUNT, MIN or MAX. Define the other columns as <NONE>.

• physicalTable Name—The name of the base physical table in the data source.

• physicalColumnName—The name of the base physical column in the data source.

• extractionRule—Specifies any SQL transformations, such as date transformations, concatenation, and substrings.

• drillThroughType (0 | 1 | 2 | 3)—Indicates whether the member is an attribute dimension or is exclusively for drill through. Valid values are:
  0 = None—not used for drill-through
  1 = Drill through—used for drill-through
  2 = Attribute dimension—dimension is an attribute
  3 = Both 1 and 2 |

<!ELEMENT ModelHierarchy (ModelHierarchyMember*)> Indicates information about hierarchies in the OLAP model. The ModelHierarchy contains the ModelHierarchyMember element.

<!ATTLIST ModelHierarchy name CDATA #REQUIRED desc CDATA #IMPLIED> Provides information about hierarchies in an OLAP model. The attributes of the ModelHierarchy element are:

• name—The name of the hierarchy.

• desc—Description of the hierarchy.

<!ELEMENT ModelHierarchyMember (ModelProperty*)> Indicates information about a hierarchy member. The ModelHierarchyMember element contains the ModelProperty element.

<!--Values for buildOrder: 0 = None, 1 = Ascending, 2 = Descending.--->
<table>
<thead>
<tr>
<th>DTD Element (ELEMENT)/Comment (!--)</th>
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<th>Parameters, if Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ATTLIST ModelHierarchyMember</td>
<td>Provides information about a hierarchy member.</td>
<td>The attributes of the ModelHierarchyMember element are:</td>
</tr>
<tr>
<td>desc CDATA #IMPLIED</td>
<td></td>
<td>• desc—Description of the hierarchy member.</td>
</tr>
<tr>
<td>filterPredicate CDATA #IMPLIED</td>
<td></td>
<td>• filterPredicate—SQL filter for the hierarchy member.</td>
</tr>
<tr>
<td>transformation CDATA #IMPLIED</td>
<td></td>
<td>• transformation—Predicate for the hierarchy member.</td>
</tr>
<tr>
<td>buildOrder (0</td>
<td>1</td>
<td>2) “1”</td>
</tr>
<tr>
<td>levelNumber CDATA #REQUIRED</td>
<td></td>
<td>0 = None</td>
</tr>
<tr>
<td>viewName CDATA #REQUIRED</td>
<td></td>
<td>1 = Ascending</td>
</tr>
<tr>
<td>viewMemberName CDATA #REQUIRED</td>
<td></td>
<td>2 = Descending</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• levelNumber—The Attribute level within the hierarchy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• viewName—The model view to which the hierarchy component belongs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• viewMemberName—The model view member to which the hierarchy component belongs.</td>
</tr>
<tr>
<td>&lt;ELEMENT ModelProperty EMPTY&gt;</td>
<td></td>
<td>The ModelProperty element has no child elements.</td>
</tr>
</tbody>
</table>

<!--In the case of a static property, the staticValue will contain a valid value and viewName and memberName will be blank.-->

<!--In the case of a dynamic property, the staticValue will be blank and viewName and memberName will contain valid values.-->

<!--instanceNo specifies the sequence in which properties should be displayed in case a member has more than one property of same kind, such as a UDA.-->
<!ATTLIST ModelProperty
    type (Sort_Ascending | Sort_Descending | Datasource | Dimension_Datasource | View_Datasource | Save_Password | Time_In_Ticks | Version_Identifier | User_Table_Definition_Primary | User_Table_Definition | Attribute_Precision | Attribute_Scale | Attribute_Nullable | External_Properties | Member_Default_Valid_Transform | SAPBW_Catalog_Name | SAPBW_Cube_Name) #REQUIRED
    staticValue CDATA #IMPLIED
    viewName CDATA #IMPLIED
    memberName CDATA #IMPLIED
    instanceNo CDATA #REQUIRED>

Provides information about the property of the model component. The property may have a static or dynamic value.

- If the property has a staticValue, viewName and memberName attributes are blank.
- If the property does not have a static value, viewName and memberName values are dynamic. They are populated with values from the source database.

The attributes of the ModelProperty element are:

- **type**—Specifies one of the following properties:
  - Sort_Ascending
  - Sort_Descending
  - Datasource
  - Dimension_Datasource
  - View_Datasource
  - Save_Password
  - Time_In_Ticks
  - Version_Identifier
  - User_Table_Definition_Primary
  - User_Table_Definition
  - Attribute_Precision
  - Attribute_Scale
  - Attribute_Nullable
  - External_Properties
  - Member_Default_Valid_Transform
  - SAPBW_Catalog_Name
  - SAPBW_Cube_Name
  The name of the SAP BW cube (also known as an InfoObject)
- **staticValue**—Value of the property.
- **viewName**—View name from the OLAP model.
- **memberName**—A name taken from the preceding viewName.
- **instanceNo**—Specifies the sequence in which the properties should be displayed, in case a member has more than one property of the same kind, such as more than one UDA.

Legend:

* Indicates that there can be more than one child element.
? Indicates that there can be zero or one child element.
+ Indicates that there can be one or more child elements.

Note:

Light-shaded areas indicate comments in the DTD.