

New DTS tasks in XP3 5.1 SR-1

Common terms

| Term | Definition |
|----------------|--|
| XP3 selection | An XML serialization of database selection object used across all DTS tasks. It is an array of two elements. First element is dimension type. Second element is array of selection elements. |
| XP3 array | An XML serialization of array object used inside XP3 |
| XP3 dictionary | An XML serialization of dictionary (map) object used inside XP3. |

1. Cube partition maintenance

Creates new partitions and refreshes and removes existing cube partitions.

Properties

| Property | Requirement | Description |
|-------------------------|--------------------|--|
| Description | Mandatory | Task description. |
| Connection | Mandatory | ID of connection to MSAS database containing the cube. |
| CubeName | Mandatory | Name of the cube. |
| GlobalVariableSelection | Mandatory | Global variable, which contains XP3 selection. The dimension of the selection, should match the dimension used in partitioning. Every selection member equals one partition. |
| PartitionAction | Mandatory. | The action to perform: 1 – add partition, 2 – remove partition, 3 – refresh partition. |

2. Load configuration and setup

Loads global variables configuration from an Excel worksheet. The first row defines global variable names. If a name starts with '_', it is ignored and not included as global variable. The rest of the rows define global variables configurations. First column is reserved for description of configuration.

Properties

| Property | Requirement | Description |
|--------------------|--------------------|---|
| Description | Mandatory | Task description. |
| Connection | Mandatory | ID of connection to Excel workbook. |
| Worksheet | Mandatory | Worksheet to use for global variables configuration. |
| Row | Optional | Load configuration from specified worksheet row. |
| ExecutePackageTask | Optional | When specified, it will load configurations from worksheet, set specified package task global variables and execute it. |

3. Value manipulation

Allows manipulation of XP3 array and XP3 dictionary.

Properties

| Property | Requirement | Description |
|-------------------------|-------------|--|
| Description | Mandatory | Task description. |
| GlobalVariableStructure | Mandatory | Global variable containing structure to be manipulated. |
| GlobalVariableValue | Mandatory | Global variable, which state depends on ValueMode . |
| ValueMode | Mandatory | By default it is in get value mode. There are three modes: <ol style="list-style-type: none"> 1. Get value from GlobalVariableStructure and set it in GlobalVariableValue. 2. Set GlobalVariableValue value in GlobalVariableStructure 3. Set GlobalVariableValue value in GlobalVariableStructure looking for a pattern specified in Key. |
| ByKey | Mandatory | When set to true, GlobalVariableStructure has to be XP3 dictionary and Key is a key inside dictionary. If GlobalVariableStructure is not dictionary, the task will fail. When set to false, Key is an index inside GlobalVariableStructure . |
| Key | Mandatory | Dictionary key, index or replace pattern based on ByKey and ValueMode properties. |

4. Dimension members segmentation

Creates dimension members segmentation, based on regular expressions applied on dimension member names.

Properties

| Property | Requirement | Description |
|----------------|-------------|--|
| Description | Mandatory | Task description. |
| Connection | Mandatory | ID of connection to XP3 database containing data source. |
| User | Optional | User name to access XP3 database. |
| Password | Optional | Password to access XP3 database. |
| SchemaOwner | Optional | Schema owner where XP3 database is stored. |
| DataSourceName | Mandatory | Data source name. |
| DataSourceId | Optional | Data source identifier. |
| DataSourceType | Optional | Data source type. |
| Dimension | Mandatory | Dimension to be segmented. |
| Segmentation | Mandatory | Segmentation definition. It is an XML document, with following structure: <pre> <segmentations> <segmentation> <match></match> <segment></segment> <value></value> </segmentation> </segmentations> </pre> <p>If dimension member matches specified regular expression inside <match>, it will apply <value> for <segment>. If regular expression contains groups, those group values can be accessed inside <value> element, using following syntax {0}, {1} ... for group 1, 2, etc. The order in which segmentations are defined is important. If there are multiple segmentation definitions matching same dimension member and segment, only the first definition will be used.</p> |

5. Get range of periods

Gets a range of periods selection from an XP3 data source.

Properties

| Property | Requirement | Description |
|--------------------------|-------------|--|
| Description | Mandatory | Task description. |
| Connection | Mandatory | ID of connection to XP3 database containing data source. |
| User | Optional | User name to access XP3 database. |
| Password | Optional | Password to access XP3 database. |
| SchemaOwner | Optional | Schema owner where XP3 database is stored. |
| DataSourceName | Mandatory | Data source name. |
| DataSourceId | Optional | Data source identifier. |
| DataSourceType | Optional | Data source type. |
| TimeDimension | Optional | Period dimension type. By default it is initialized with the type used inside XP3. |
| DateMatch | Mandatory | Regular expression used to extract month, day, year information from period dimension member name. |
| DateFormat | Mandatory | Specifies the format of the date extracted with the regular expression. Please check VB Format function help for more information about the format. |
| Ascending | Mandatory | Specifies what the order of result period selection is. |
| RangeType | Mandatory | Type of range to get. Following types are supported: 1 – Get all periods after a date (parameter1). 2 – Get all periods before a date (parameter1). 3 – Get all periods equal to date (parameter1). 4 – Get all periods after or equal to date (parameter1). 5 – Get all periods before or equal to date (parameter1). 6 – Get all periods within a range (parameter1, parameter2), inclusive. 7 – Get all periods within a range (parameter1, parameter2), exclusive. 8 – Get all periods outside a range (parameter1, parameter2), inclusive. 9 – Get all periods outside a range (parameter1, parameter2), exclusive. 10 – Get all periods not equal to date (parameter1). 11 – Get first periods (parameter1). 12 – Get last periods (parameter1). 13 – Get periods, which exist in XP3 selection (parameter1). 14 – Get periods, which doesn't exist in XP3 selection (parameter1). 15 – Get periods, which after combining with XP3 selection (parameter1) are outside specified limit (parameter2). 16 – Same as 15, but also include overlapping periods, too. |
| GlobalVariableParameter1 | Mandatory | Global variable containing first parameter for a range type function. |
| GlobalVariableParameter2 | Optional | Depends on RangeType property. Global variable containing second parameter for a range type function. |
| GlobalVariableResult | Mandatory | Global variable containing result of task execution. It is stored in format specified by ResultFormat property. |
| ResultFormat | Mandatory | The format of the result: 1 – XP3 selection of periods, 2 - XP3 selection of periods inside XP3 array, 3 - array of all members XP3 selection for each data source dimension and XP3 selection of periods. First format is usually used in <u>cube partition maintenance</u> task. Second format is usually used inside XP3 Remove Data Workshop task for dimension members removal. The third format is usually used inside XP3 Remove Data Workshop task for facts removal (complete selection). |

6. Shifting time segmentation

Performs predefined shifting time segmentation, based on period position in time. If segmentation is not defined, it is not performed. There are three parameters for segmentation: segment name, current period value, previous period value. They are separated with **ParameterDelimiter**. The values can reference groups from the regular expression (**DateMatch**) matching the dimension member period name, using following syntax {0}, {1} ... for group 1, 2, etc.

Properties

| Property | Requirement | Description |
|--------------------|-------------|---|
| Description | Mandatory | Task description. |
| Connection | Mandatory | ID of connection to XP3 database containing data source |
| User | Optional | User name to access XP3 database |
| Password | Optional | Password to access XP3 database |
| SchemaOwner | Optional | Schema owner where XP3 database is stored |
| DataSourceName | Mandatory | Data source name. |
| DataSourceId | Optional | Data source identifier. |
| DataSourceType | Optional | Data source type |
| TimeDimension | Optional | Period dimension type. By default it is initialized with the type used inside XP3. |
| DateMatch | Mandatory | Regular expression used to extract month, day, year information from period dimension member name |
| DateFormat | Mandatory | Specifies the format of the date extracted with the regular expression. Please check VB Format function help for more information about the format. |
| YTD | Optional | Performs year-to-date and year-to-date year ago segmentation. |
| Week52 | Optional | Performs 52 weeks and 52 weeks year ago segmentation. |
| Week26 | Optional | Performs 26 weeks and 26 weeks year ago segmentation. |
| Week13 | Optional | Performs 13 weeks and 13 weeks year ago segmentation. |
| Week4 | Optional | Performs 4 weeks and 4 weeks year ago segmentation. |
| Week | Optional | Performs current week and last week segmentation. |
| FourWeek13 | Optional | Performs 13 quad weeks and 13 quad weeks year ago segmentation. |
| ParameterDelimiter | Mandatory | The combination used to separate segment, current value and previous value for segmentations. By default it is ';':. |