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## **AIMMS Function Reference - XML Functions**

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## XML Functions

AIMMS supports the following functions for reading and writing XML files:

- `GenerateXML`
- `ReadGeneratedXML`
- `ReadXML`
- `WriteXML`

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## GenerateXML

The procedure `GenerateXML` generates XML output data for a given set of AIMMS identifiers.

```
GenerateXML(  
    XMLFile,      ! (input) scalar string expression  
    IdentifierSet, ! (input) set expression  
    Merge,        ! (optional) 0 or 1  
    SchemaFile    ! (optional) scalar string expression  
)
```

### Arguments:

#### *XMLFile*

Name of the file to which the generated XML must be written.

#### *IdentifierSet*

A subset of the predefined set `AllIdentifiers`, containing the set of identifiers for which XML output must be generated.

#### *Merge (optional)*

Indicates whether or not the contents of the file can be merged within another XML file.

#### *SchemaFile (optional)*

If this argument is specified, a schema corresponding to the generated XML data will be written to the specified file name. A namespace will be generated for this schema file, and added to the `xmlns` attribute of the root element of the generated XML file.

### Return value:

The procedure returns 1 on success. or 0 on failure.

### Remarks:

Notice that the `Merge` attribute does *not* mean that the generated XML will be appended to the specified XML file. The latter will *always* be overwritten. If the `Merge` argument is non-zero, AIMMS will omit the XML header from the generated file, allowing you to merge its contents into another XML document.

### See also:

The procedures `ReadGeneratedXML`, `ReadXML`, `WriteXML`. Generating XML data is discussed in full detail in Section 28.3 of the Language Reference.

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## ReadGeneratedXML

The procedure `ReadGeneratedXML` reads the contents of an AIMMS-generated XML data file.

```
ReadGeneratedXML(  
    XMLFile,      ! (input) scalar string expression  
    merge         ! (optional) 0 or 1  
)
```

### Arguments:

*XMLFile*

Name of the AIMMS-generated XML file to read.

*merge (optional)*

With this optional argument (default 0), you can choose whether you want to merge the data included in the XML file with the existing data, or overwrite any existing data (default)

### Return value:

The procedure returns 1 if the XML file is read successfully, or 0 otherwise.

### See also:

The procedures [GenerateXML](#), [ReadXML](#), [WriteXML](#). Generating XML data is discussed in full detail in [Section 28.3](#) of the Language Reference.

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## ReadXML

The procedure `ReadXML` you can read an XML data file according to a given user-defined XML format.

```
ReadXML(  
    XMLFile,      ! (input) scalar string expression  
    MappingFile,  ! (input) scalar string expression  
    merge,        ! (optional) 0 or 1  
    SchemaFile    ! (optional) scalar string expression  
)
```

### Arguments:

#### *XMLFile*

The name of the file from which the XML data must be read

#### *MappingFile*

The name of the file containing the mapping between the user-defined XML format and the identifiers in your model.

#### *merge (optional)*

With this optional argument (default 0), you can choose whether you want to merge the data included in the XML file with the existing data, or overwrite any existing data (default)

#### *SchemaFile*

If you specify the name of a schema file through this argument, AIMMS will validate the contents of the XML data file against this schema prior to reading it into AIMMS.

### Return value:

The procedure returns 1 if successful, or 0 otherwise.

### Remarks:

The namespace defined in the schema file (if specified) must match the namespace specified in the `xmlns` attribute of the root element in the XML data file.

### See also:

The procedures [GenerateXML](#), [ReadGeneratedXML](#), [WriteXML](#). Reading user-defined XML data is discussed in full detail in Section [28.4](#) of the Language Reference.

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## WriteXML

With the procedure `WriteXML` you write an XML data file according to a given user-defined XML format.

```
WriteXML(  
    XMLFile,      ! (input) scalar string expression  
    MappingFile,  ! (input) scalar string expression  
    Merge        ! (optional) 0 or 1  
)
```

### Arguments:

#### *XMLFile*

The name of the file to which the XML data must be written

#### *MappingFile*

The name of the file containing the mapping between the user-defined XML format and the identifiers in your model.

#### *Merge (optional)*

Indicates whether or not the contents of the file can be merged within another XML file.

### Return value:

The procedure returns 1 if successful, or 0 otherwise.

### Remarks:

Notice that the `merge` attribute does *not* mean that the generated XML will be appended to the specified XML file. The latter will *always* be overwritten. If the `merge` argument is non-zero, AIMMS will omit the XML header from the generated file, allowing you to merge its contents into another XML document.

### See also:

The procedures [GenerateXML](#), [ReadGeneratedXML](#), [ReadXML](#). Writing user-defined XML data is discussed in full detail in Section [28.4](#) of the Language Reference.