
AIMMS Function Reference - Unit Functions

This file contains only one chapter of the book. For a free download of the complete book in pdf format, please visit www.aimms.com

Unit Functions

AIMMS supports the following functions for unit related functions:

- `AtomicUnit`
- `ConvertUnit`
- `EvaluateUnit`
- `StringToUnit`
- `Unit`

AtomicUnit

With the function `AtomicUnit` you can retrieve the atomic unit expression corresponding to the unit expression passed as the argument to the function.

```
AtomicUnit(  
    unit                ! (input) scalar unit expression  
)
```

Arguments:

unit

A unit expression of which the associated atomic unit expression must be computed

Return value:

The function returns the atomic unit expression corresponding to *unit*.

Remarks:

The atomic unit expression associated with a given unit is the unit expression solely in terms of atomic unit symbols by which the given unit differs a constant scale factor only.

See also:

Unit expressions are discussed in full detail in [Chapter 30](#) of the Language Reference.

ConvertUnit

With the function `ConvertUnit` you can compute the associated unit value of a unit expression with respect to a given convention.

```
ConvertUnit(  
    unit,                ! (input) scalar unit expression  
    convention           ! (input) element expression  
)
```

Arguments:

unit

A unit expression of which the associated unit value in the given convention must be computed

convention

An element expression in to `AllConventions`, representing the convention with respect to which a unit value must be computed.

Return value:

The function returns the associated unit value of *unit* with respect to *convention*.

See also:

Unit expressions and conventions are discussed in full detail in [Chapter 30](#) of the Language Reference.

EvaluateUnit

With the function `EvaluateUnit` you can compute the numerical value (with associated unit) of a given unit expression.

```
EvaluateUnit(  
    unit                ! (input) scalar unit expression  
)
```

Arguments:

unit
A unit expression of which the numerical value (with associated unit) must be computed

Return value:

The function returns the numerical value (with associated unit), corresponding to one unit of *unit*.

Remarks:

The function `EvaluateUnit` is an extension of AIMMS' local unit override capabilities which allows computed unit expressions.

See also:

Unit expressions are discussed in full detail in [Chapter 30](#) of the Language Reference.

StringToUnit

With the function `StringToUnit` you can compute a unit value corresponding to a given string expression.

```
StringToUnit(  
    str          ! (input) scalar string expression  
)
```

Arguments:

str

A string expression of which the associated unit value must be computed

Return value:

The function returns the associated unit value of *str*, or fails if the given string does not correspond to a string constant.

See also:

Unit expressions discussed in full detail in Chapter [30](#) of the Language Reference.

Unit

The function `Unit` returns the unit value of a given unit constant.

```
Unit(  
    unit          ! (input) scalar unit constant  
)
```

Arguments:

unit

A unit constant of which the associated unit value must be computed

Return value:

The function returns the unit value of a unit constant *unit*.

Remarks:

The function `Unit` simply returns its argument. It exists to allow the use of numeric constants in computed unit expressions.

See also:

Unit expressions discussed in full detail in Chapter [30](#) of the Language Reference.