
AIMMS Function Reference - GMPQuadraticCoefficient Procedures and 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

GMP::QuadraticCoefficient Procedures and Functions

AIMMS supports the following procedures and functions for modifying the quadratic coefficients in the matrix associated with a generated mathematical program instance:

- `GMP::QuadraticCoefficient::Get`
- `GMP::QuadraticCoefficient::Set`

GMP::QuadraticCoefficient::Get

The function `GMP::QuadraticCoefficient::Get` retrieves a quadratic coefficient in a quadratic row of a generated mathematical program.

```
GMP::QuadraticCoefficient::Get(  
  GMP,           ! (input) a generated mathematical program  
  row,           ! (input) a scalar reference  
  column1,      ! (input) a scalar reference  
  column2      ! (input) a scalar reference  
)
```

Arguments:

GMP

An element in `AllGeneratedMathematicalPrograms`.

row

A scalar reference to an existing row in the matrix.

column1

A scalar reference to an existing column in the matrix.

column2

A scalar reference to an existing column in the matrix.

Return value:

The value of the specified quadratic coefficient in the quadratic row.

Remarks:

If *column1* equals *column2* then AIMMS multiplies the quadratic coefficient by 2 before it is returned by this function.

See also:

The routines `GMP::QuadraticCoefficient::Set`, `GMP::Coefficient::GetQuadratic` and `GMP::Coefficient::SetQuadratic`.

GMP::QuadraticCoefficient::Set

The procedure `GMP::QuadraticCoefficient::Set` sets the value for a quadratic coefficient in a quadratic row of a generated mathematical program.

```
GMP::QuadraticCoefficient::Set(
  GMP,          ! (input) a generated mathematical program
  row,          ! (input) a scalar reference
  column1,     ! (input) a scalar reference
  column2,     ! (input) a scalar reference
  value        ! (input) a numerical expression
)
```

Arguments:

GMP

An element in `AllGeneratedMathematicalPrograms`.

row

A scalar reference to an existing row in the matrix.

column1

A scalar reference to an existing column in the matrix.

column2

A scalar reference to an existing column in the matrix.

value

A scalar numerical value indicating the value for the coefficient.

Return value:

The procedure returns 1 on success, or 0 otherwise.

Remarks:

If *column1* equals *column2* then AIMMS multiplies the quadratic coefficient by 0.5 before it is stored (and passed to the solver).

See also:

The routines `GMP::QuadraticCoefficient::Get`, `GMP::Coefficient::GetQuadratic` and `GMP::Coefficient::SetQuadratic`.