# DecisionMakerLPA Reference

# **Table of Contents**

DecisionMakerLPA Reference	4
<default> Namespace</default>	5
Baricentro Class	5
Baricentro Constructor	5
Baricentro.Lambda Property	6
Baricentro.Mi Property	6
Baricentro.CalculaGrauDeCerteza Method	6
Baricentro. Calcula Grau Delncerteza Method	6
Baricentro.Normalizar Method	7
Carta Class	7
Carta Constructor	8
Carta.LambAtributo1 Property	8
Carta.LambAtributo2 Property	9
Carta.LambAtributo3 Property	9
Carta.LambAtributo4 Property	9
Carta.MiAtributo1 Property	9
Carta.MiAtributo2 Property	9
Carta.MiAtributo3 Property	10
Carta.MiAtributo4 Property	10
Carta.GetAtributoLamb Method	10
Carta.GetAtributoMi Method	10
Constante Class	11
FALSO Field	11
INCONSISTENTE Field	11
INCONSISTENTE_T_FALSO Field	12
INCONSISTENTE_T_VERDADE Field	12
PARACOMPLETO Field	12
PARACOMPLETO_T_FALSO Field	12
PARACOMPLETO_T_VERDADE Field	12
QUASE_F_I Field	13
QUASE_F_P Field	13
OUASE V LField	13

#### **DECISIONMAKERLPA REFERENCE**

	QUASE_V_P Field	13
	VCFA Field	13
	VCIC Field	14
	VCPA Field	14
	VCVE Field	14
	VERDADE Field	14
	EstadoLogico Class	15
	EstadoLogico.DescobreEstadoLogico Method	15
	EstadoLogico.TransformaEstadoLogicoEmPorcentagem Method	15
	LogicaParaconsistente Class	16
	LogicaParaconsistente.ObtemBaricentro Method	16
	LogicaParaconsistente.ObtemPorcentagemDeDano Method	17
Inde	x	18

# **DecisionMakerLPA Reference**

# Namespaces

<default>5

# <default> Namespace

## **Classes**

Baricentro<sub>5</sub>, Carta<sub>7</sub>, Constante<sub>11</sub>, EstadoLogico<sub>15</sub>, LogicaParaconsistente<sub>16</sub>

## **Baricentro Class**

Classe modelo que contém os valores favoráveis (Mi) e desfavoráveis (Lambda).

```
public class Baricentro
```

## Requirements

Namespace:<default>5

Assembly: DecisionMakerLPA (in DecisionMakerLPA.dll)

## **Properties**

Lambda<sub>6</sub>, Mi<sub>6</sub>

#### **Methods**

CalculaGrauDeCerteza<sub>6</sub>, CalculaGrauDeIncerteza<sub>6</sub>, Normalizar<sub>7</sub>

## **Baricentro Constructor**

Método Construtor.

```
public Baricentro(
   int mi,
   int Lambda
)
```

#### **Parameters**

mi

Valor Favorável.

lambda

Valor Desfavorável.

## **See Also**

Applies to: Baricentro<sub>5</sub>

# **Baricentro.Lambda Property**

```
public int Lambda {get; set;}
```

## **Property Value**

Getter e Setter do valor Lambda.

#### See Also

Applies to: Baricentro<sub>5</sub>

## **Baricentro.Mi Property**

```
public int Mi {get; set;}
```

## **Property Value**

Getter e Setter do valor Mi.

#### See Also

Applies to: Baricentro<sub>5</sub>

## Baricentro.CalculaGrauDeCerteza Method

Calcula o grau de Certeza.

```
public double CalculaGrauDeCerteza()
```

#### **Returns**

Retorna valor double no intervalo de 0 até 1.

## **See Also**

Applies to: Baricentro<sub>5</sub>

## Baricentro.CalculaGrauDeIncerteza Method

Calcula o grau de incerteza.

```
public double CalculaGrauDeIncerteza()
```

#### **Returns**

Retorna valor double no intervalo de 0 até 1.

#### **See Also**

Applies to: Baricentro<sub>5</sub>

## Baricentro.Normalizar Method

Normalizar o valor para intervalo de 0 até 1.

```
public static double Normalizar(
   int atributo
)
```

#### **Parameters**

atributo

#### **Returns**

Retorna o valor do Mi ou Lambda divido por cem.

#### See Also

Applies to: Baricentro<sub>5</sub>

## **Carta Class**

Classe Modelo Carta que contém oito valores.

```
public class Carta
```

## Requirements

Namespace:<default>5

Assembly: DecisionMakerLPA (in DecisionMakerLPA.dll)

## **Properties**

LambAtributo1<sub>8</sub>, LambAtributo2<sub>9</sub>, LambAtributo3<sub>9</sub>, LambAtributo4<sub>9</sub>, MiAtributo1<sub>9</sub>, MiAtributo1<sub>10</sub> MiAtributo3<sub>10</sub>, MiAtributo4<sub>10</sub>

## **Methods**

GetAtributoLamb<sub>10</sub>, GetAtributoMi<sub>10</sub>

## **Carta Constructor**

Método Construtor.

```
public Carta(
   int mi1,
   int lamb1,
   int mi2,
   int Lamb2,
   int mi3,
   int lamb3,
   int mi4,
   int lamb4
)
```

#### **Parameters**

mi1

lamb1

mi2

lamb2

mi3

lamb3

mi4

lamb4

## **See Also**

Applies to: Carta<sub>7</sub>

# **Carta.LambAtributo1 Property**

```
public int LambAtributo1 {get; set;}
```

## **See Also**

Applies to: Carta<sub>7</sub>

# Carta.LambAtributo2 Property

```
public int LambAtributo2 {get; set;}
```

## **See Also**

Applies to: Carta7

# Carta.LambAtributo3 Property

```
public int LambAtributo3 {get; set;}
```

## **See Also**

Applies to: Carta7

# Carta.LambAtributo4 Property

```
public int LambAtributo4 {get; set;}
```

## **See Also**

Applies to: Carta<sub>7</sub>

# Carta.MiAtributo1 Property

```
public int MiAtributo1 {get; set;}
```

#### **See Also**

Applies to: Carta<sub>7</sub>

# Carta.MiAtributo2 Property

```
public int MiAtributo2 {get; set;}
```

## **See Also**

Applies to: Carta7

# **Carta.MiAtributo3 Property**

```
public int MiAtributo3 {get; set;}
```

## **See Also**

Applies to: Carta7

# **Carta.MiAtributo4 Property**

```
public int MiAtributo4 {get; set;}
```

## **See Also**

Applies to: Carta7

## Carta.GetAtributoLamb Method

Pega o atributo de acordo com índice passado por parâmetro.

```
public int GetAtributoLamb(
   int i
)
```

## **Parameters**

*i* Índice

#### Returns

Retorna o atributo selecionado.

## **See Also**

Applies to: Carta<sub>7</sub>

## Carta.GetAtributoMi Method

Pega o atributo de acordo com índice passado por paramêtro.

C#

```
public int GetAtributoMi(
   int i
)
```

#### **Parameters**

i

Índice

#### **Returns**

Retorna o atributo selecionado.

#### See Also

Applies to: Carta<sub>7</sub>

## **Constante Class**

Classe estática que possui as constantes da biblioteca.

```
public static class Constante
```

## Requirements

Namespace:<default>5

Assembly: DecisionMakerLPA (in DecisionMakerLPA.dll)

#### **Fields**

```
FALSO<sub>11</sub>, INCONSISTENTE<sub>11</sub>, INCONSISTENTE_T_FALSO<sub>12</sub>, INCONSISTENTE_T_VERDADE<sub>12</sub>, PARACOMPLETO<sub>12</sub>, PARACOMPLETO_T_FALSO<sub>12</sub>, PARACOMPLETO_T_VERDADE<sub>12</sub>, QUASE_F_I<sub>13</sub>, QUASE_F_P<sub>13</sub>, QUASE_V_P<sub>13</sub>, VCFA<sub>13</sub>, VCIC<sub>14</sub>, VCPA<sub>14</sub>, VCVE<sub>14</sub>, VERDADE<sub>14</sub>
```

## **FALSO Field**

#### See Also

Applies to: Constante<sub>11</sub>

## **INCONSISTENTE Field**

```
public const string INCONSISTENTE = @"INCONSISTENTE"
```

## **See Also**

Applies to: Constante<sub>11</sub>

## INCONSISTENTE\_T\_FALSO Field

C#

public const string INCONSISTENTE\_T\_FALSO = @"INCONSISTENTE\_TENDENDO\_A\_FALSO"

#### See Also

Applies to: Constante<sub>11</sub>

## INCONSISTENTE\_T\_VERDADE Field

C#

public const string INCONSISTENTE\_T\_VERDADE =
@"INCONSISTENTE\_TENDENDO\_A\_VERDADE"

#### See Also

Applies to: Constante<sub>11</sub>

## PARACOMPLETO Field

C#

public const string PARACOMPLETO = @"PARACOMPLETO"

#### **See Also**

Applies to: Constante<sub>11</sub>

# PARACOMPLETO\_T\_FALSO Field

C#

public const string PARACOMPLETO\_T\_FALSO = @"PARACOMPLETO\_TENDENDO\_A\_FALSO"

#### **See Also**

Applies to: Constante<sub>11</sub>

## PARACOMPLETO\_T\_VERDADE Field

C#

public const string PARACOMPLETO\_T\_VERDADE = @"PARACOMPLETO\_TENDENTO\_A\_VERADADE"

#### See Also

Applies to: Constante<sub>11</sub>

## QUASE\_F\_I Field

```
C#
```

public const string QUASE\_F\_I = @"QUASE\_FALSO\_TEDENDO\_A\_INCONSISTENTE"

#### **See Also**

Applies to: Constante<sub>11</sub>

# QUASE\_F\_P Field

```
C#
```

public const string QUASE\_F\_P = @"QUASE\_FALSO\_TENDENDO\_PARACOMPLETO"

#### **See Also**

Applies to: Constante<sub>11</sub>

# QUASE\_V\_I Field

C#

public const string QUASE\_V\_I = @"QUASE\_VERDADE\_TENDENDO\_A\_INCONSISTENTE"

## **See Also**

Applies to: Constante<sub>11</sub>

# QUASE\_V\_P Field

C#

public const string QUASE\_V\_P = @"QUASE\_VERDADE\_TENDENDO\_A\_PARACOMPLETO"

## **See Also**

Applies to: Constante<sub>11</sub>

## **VCFA Field**

C#

```
public const double VCFA = -0,5
```

## **See Also**

Applies to: Constante<sub>11</sub>

## **VCIC Field**

```
C#
```

public const double VCIC = 0,5

## **See Also**

Applies to: Constante<sub>11</sub>

## **VCPA Field**

```
C#
```

public const double VCPA = -0,5

## **See Also**

Applies to: Constante<sub>11</sub>

## **VCVE Field**

```
C#
```

public const double VCVE = 0,9

## **See Also**

Applies to: Constante<sub>11</sub>

## **VERDADE Field**

```
C#
```

public const string VERDADE = @"VERDADE"

## **See Also**

Applies to: Constante<sub>11</sub>

## **EstadoLogico Class**

Classe estática que realizar a verificação do estado Lógico no reticulado.

```
public static class EstadoLogico
```

## Requirements

Namespace:<default>5

Assembly: DecisionMakerLPA (in DecisionMakerLPA.dll)

**Methods** 

DescobreEstadoLogico<sub>15</sub>, TransformaEstadoLogicoEmPorcentagem<sub>15</sub>

# EstadoLogico.DescobreEstadoLogico Method

Confere o estado lógico pelo grau de certeza e incerteza.

```
public static string DescobreEstadoLogico(
   double gc,
   double gi
)
```

#### **Parameters**

```
gc
Grau de Certeza
gi
Grau de Incerteza
```

#### Returns

Retorna o estado lógico.

#### See Also

Applies to: EstadoLogico<sub>15</sub>

# EstadoLogico.TransformaEstadoLogicoEmPorcentagem Method

Transforma a estado lógico em porcentagem.

```
public static int TransformaEstadoLogicoEmPorcentagem(
   string estadoLogico
)
```

#### **Parameters**

estadoLogico

Um dos doze estados lógicos da paraconsistente.

#### **Returns**

Porcentagem em Danos.

#### **See Also**

Applies to: EstadoLogico<sub>15</sub>

# LogicaParaconsistente Class

Classe Responsável por implementar a Lógica Paraconsistente.

```
public class LogicaParaconsistente
```

## Requirements

Namespace:<default>5

Assembly: DecisionMakerLPA (in DecisionMakerLPA.dll)

#### Methods

ObtemBaricentro<sub>16</sub>, ObtemPorcentagemDeDano<sub>17</sub>

# LogicaParaconsistente.ObtemBaricentro Method

Adiquire o Baricentro através da lista de cartas.

```
public Baricentro ObtemBaricentro(
   List<Carta> cartas
)
```

#### **Parameters**

cartas

Índice do atributo da carta.

#### **Returns**

Retorna a classe Baricentro.

## **See Also**

Applies to: LogicaParaconsistente<sub>16</sub>

# LogicaParaconsistente.ObtemPorcentagemDeDano Method

Recebe uma lista "Carta" com seus valores favoráveis e desfavoráveis, aplicar a Lógica Paraconsistente.

```
public int ObtemPorcentagemDeDano(
   List<Carta> cartas
)
```

## **Parameters**

cartas

Índice do atributo da carta.

## **Returns**

Retorna porcentagem de Dano.

## **See Also**

Applies to: LogicaParaconsistente<sub>16</sub>

## **Index**

```
<default> Namespace 5
Baricentro Class 5
Baricentro Constructor 5
CalculaGrauDeCerteza Method 6
CalculaGrauDeIncerteza Method 6
Carta Class 7
Carta Constructor 8
Constante Class 11
DecisionMakerLPA Reference 4
DescobreEstadoLogico Method 15
EstadoLogico Class 15
FALSO Field 11
GetAtributoLamb Method 10
GetAtributoMi Method 10
INCONSISTENTE Field 11
INCONSISTENTE_T_FALSO Field 12
INCONSISTENTE_T_VERDADE Field 12
LambAtributo1 Property 8
LambAtributo2 Property 9
LambAtributo3 Property 9
LambAtributo4 Property 9
Lambda Property 6
LogicaParaconsistente Class 16
Mi Property 6
MiAtributo1 Property 9
MiAtributo2 Property 9
MiAtributo3 Property 10
MiAtributo4 Property 10
Normalizar Method 7
ObtemBaricentro Method 16
ObtemPorcentagemDeDano Method 17
PARACOMPLETO Field 12
PARACOMPLETO_T_FALSO Field 12
PARACOMPLETO_T_VERDADE Field 12
QUASE_F_I Field 13
QUASE_F_P Field 13
QUASE_V_I Field 13
QUASE_V_P Field 13
TransformaEstadoLogicoEmPorcentagem Method 15
VCFA Field 13
VCIC Field 14
VCPA Field 14
VCVE Field 14
VERDADE Field 14
```