

# IRLS

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# IRLS/ GetModel

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## IMPORTS

ML\_Core | ML\_Core.Types | Constants | Types | IRLS |

## DESCRIPTIONS

### **FUNCTION** GetModel

<code>DATASET(Layout_Model)</code>	GetModel
<pre>(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)</pre>	

Generate logistic regression model from training data. The size of the inputs is used to determine which work items are processed with purely local operations (the data is moved once as necessary) or with global operations supporting a work item to use multiple nodes.

**PARAMETER** **independents** the independent values

**PARAMETER** **dependents** the dependent values.

**PARAMETER** **max\_iter** maximum number of iterations to try

**PARAMETER** **epsilon** the minimum change in the Beta value estimate to continue

**PARAMETER** **ridge** a value to populate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

**RETURN** coefficient matrix plus model building stats

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# IRLS/ GetModel\_\_global

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## IMPORTS

ML\_Core | ML\_Core.Types | PBblas | PBblas.Types | Constants | Types |

## DESCRIPTIONS

### **FUNCTION** GetModel\_\_global

<code>DATASET(Layout_Model)</code>	GetModel__global
<pre>(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)</pre>	

Internal function to determine values for the model coefficients and selected statistics from building the model.

**PARAMETER** **independents** the independent values

**PARAMETER** **dependents** the dependent values

**PARAMETER** **max\_iter** maximum number of iterations to try

**PARAMETER** **epsilon** the minimum change in the Beta value estimate to continue

**PARAMETER** **ridge** a value to pupulate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

**RETURN** coefficient matrix plus model building statistics



# IRLS/ GetModel\_\_local

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## IMPORTS

ML\_Core | ML\_Core.Types | Constants | Types | IRLS | std | std.blas |

## DESCRIPTIONS

### **FUNCTION** GetModel\_\_local

<code>DATASET(Layout_Model)</code>	GetModel__local
<pre>(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED2 max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)</pre>	

Internal function to determine values for the model co-efficients and selected stats from building the model.

**PARAMETER** **independents** the independent values

**PARAMETER** **dependents** the dependent values.

**PARAMETER** **max\_iter** maximum number of iterations to try

**PARAMETER** **epsilon** the minimum change in the Beta value estimate to continue

**PARAMETER** **ridge** a value to populate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

**RETURN** coefficient matrix plus model building stats

