IRLS

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GetModel

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DESCRIPTIONS

FUNCTION **GetModel**

`DATASET(Layout_Model)`	**GetModel**
`(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)`	

Generate logistic regression model from training data. The size of the inputs is used to determin 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 **dependents** ||| TABLE (DiscreteField) — the dependent values.

PARAMETER **ridge** ||| REAL8 — a value to pupulate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

PARAMETER **epsilon** ||| REAL8 — the minimum change in the Beta value estimate to continue

PARAMETER **independents** ||| TABLE (NumericField) — the independent values

PARAMETER <u>**max_iter**</u> ||| UNSIGNED8 — maximum number of iterations to try

RETURN **TABLE ({ UNSIGNED2 wi , UNSIGNED8 id , UNSIGNED4 number , REAL8 value })** — coefficient matrix plus model building stats

GetModel__global

IMPORTS

ML_Core | ML_Core.Types | PBblas | PBblas.Types | LogisticRegression |
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DESCRIPTIONS

FUNCTION **GetModel_global**

`DATASET(Layout_Model)`	**GetModel__global**
`(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)`	

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

PARAMETER **dependents** ||| TABLE (DiscreteField) — the dependent values

PARAMETER **ridge** ||| REAL8 — a value to pupulate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

PARAMETER **epsilon** ||| REAL8 — the minimum change in the Beta value estimate to continue

PARAMETER **independents** ||| TABLE (NumericField) — the independent values

PARAMETER **max__iter** ||| UNSIGNED8 — maximum number of iterations to try

GetModel_local

IMPORTS

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DESCRIPTIONS

FUNCTION GetModel_local

`DATASET(Layout_Model)`	**GetModel_local**
`(DATASET(NumericField) independents, DATASET(DiscreteField) dependents, UNSIGNED2 max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)`	

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

PARAMETER **dependents** ||| TABLE (DiscreteField) — the dependent values.

PARAMETER **ridge** ||| REAL8 — a value to populate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

PARAMETER **epsilon** ||| REAL8 — the minimum change in the Beta value estimate to continue

PARAMETER **independents** ||| TABLE (NumericField) — the independent values

PARAMETER **max_iter** ||| UNSIGNED2 — maximum number of iterations to try

RETURN **TABLE ({ UNSIGNED2 wi , UNSIGNED8 id , UNSIGNED4 number , REAL8 value })** — coefficient matrix plus model building stats