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### **FUNCTION** Fat

DATASET(Types.NumericField)	Fat
(DATASET(Types.NumericField)	d0, Types.t_FieldReal v=0)

Will take a potentially sparse file d and fill in the missing with value v for Numeric Field datasets

 $\begin{array}{c} {\bf \underline{AD}} \ ||| \ {\bf TABLE} \ ( \ {\bf NumericField} \ ) - {\bf They \ myriad \ format \ Numeric \ Field \ dataset \ to \ be} \\ \\ & {\bf Implied} \end{array}$ 

PARAMETER  $\underline{\mathbf{v}}$  ||| REAL8 — The value to assign missing records

RETURN TABLE ( { UNSIGNED2 wi , UNSIGNED8 id , UNSIGNED4 number , REAL8 value } ) — A full Numeric Field dataset with every field populated

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#### **IMPORTS**

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#### **DESCRIPTIONS**

### **FUNCTION FatD**

DATASET(Types.DiscreteField)	FatD
(DATASET(Types.DiscreteField)	d0, Types.t_Discrete v=0)

Will take a potentially sparse file d and fill in the missing with value v for Discrete Field datasets

**PARAMETER**  $\underline{\mathbf{v}}$  ||| INTEGER4 — The value to assign missing records

RETURN TABLE ( { UNSIGNED2 wi , UNSIGNED8 id , UNSIGNED4 number , INTEGER4 value } ) — A full Discrete Field dataset with every field populated

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#### **DESCRIPTIONS**

### **MACRO** Gini

Gini
(infile, pivot, target, wi\_name='wi')

Creates a file of pivot/target pairs with a Gini impurity value.

PARAMETER infile || INTEGER8 — the input file, any type with a work item field

PARAMETER pivot || INTEGER8 — the name of the pivot field

PARAMETER target || INTEGER8 — the name of the field used as the target

**PARAMETER** wi\_name ||| INTEGER8 — the name of the work item field, default is "wi" return A table by Work Item and Pivot value giving count and Gini impurity value

RETURN BOOLEAN —

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#### **DESCRIPTIONS**

#### MACRO SequenceInField

## SequenceInField (infile,infield,seq,wi\_name='wi')

Given a file which is sorted by the work item identifier and INFIELD (and possibly other values), add sequence numbers within the range of each infield. Slighly elaborate code is to avoid having to partition the data to one value of infield per node and to work with very large numbers of records where a global count project would be inappropriate. This is useful for assigning rank positions with the groupings.

PARAMETER infield || INTEGER8 — field name of grouping field

PARAMETER infile || INTEGER8 — the input file, any type

PARAMETER seq || INTEGER8 — name of the field to receive the sequence number

PARAMETER wi\_name ||| INTEGER8 — work item field name, default is wi

**RETURN** BOOLEAN — a file of the same type with sequence numbers applied