### curvefit

Runs a linear regression analysis for the input using the Least Mean Square (LMS).

#### Syntax

curvefit [degree=INT] INDEPENDENT\_FIELD, DEPENDENT\_FIELD

Required Parameter

**INDEPENDENT\_FIELD**

Field as the independent variable. The value of the independent variable must be numeric.

**DEPENDENT\_FIELD**

Field as the dependent variable. The value of the dependent variable must be numeric.

Optional Parameter

**degree=INT**

Degree of the polynomial function that approximates the input value (default: 3).

#### Description

This runs a linear regression analysis using the least mean square for up to 10,000 input record values. This assigns the independent variable field value to the **\_x** field and the predicted value to the **\_p** field. It ignores records after 10,000.

#### Usage

Approximate the CPU usage rate for the past 1 hour with a tenth polynomial function.

table duration=1h sys\_cpu\_logs | eval x = datediff(dateadd(now(), "hour", -1), \_time, "sec") | eval total = kernel + user | curvefit degree=10 x, total