### stl

Decomposes time series data into trends, seasonality, and errors. This command returns up to 1,000 for each grouping field (the field specified by the by clause), and if you do not specify the grouping field, the number of output rows is limited to 1,000.

To increase the limit of the number of stl outputs, add the -Dlogpresso.stl.limit=N booting option and provide the desired value.

#### Syntax

stl [period=INT{y|mon|w|d|h|m|s}] NUMERIC\_FIELD [by GRP\_FIELD]

Required Parameter

**NUMERIC\_FIELD**

Time series data to be calculated. The field value must be numbers, such as integers, real numbers, or dates.

Optional Parameter

**period=INT{y|mon|w|d|h|m|s}**

Time series cycle. You can specify time in units of y (year), mon (month), w (week), d (day), h (hour), m (minute), and s (second). The command performs the analysis assuming that the time series data has repeatability according to the cycle you specified. If you do not specify a time series cycle, it automatically calculates the seasonality cycle through spectral analysis.

**by GRP\_FIELD**

Grouping fields with by directive, separated by a comma(,).

#### Description

STL is an abbreviation for seasonal-trend decomposition procedure based on loess. If the period is not specified, the command automatically calculates the seasonality cycle through spectral analysis.

The stl command analyzes the time series data and outputs the **\_trend**, **\_seasonal**, and **\_error** fields. If the time series data has no cycle (e.g., period=0m), the **\_seasonal** field does not output.