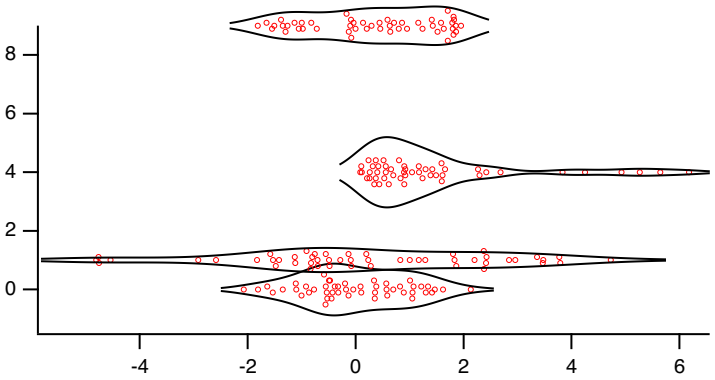
```
ds4 = enoise(2)
dsX = p^2
Display; AppendViolinPlot ds1,ds2,ds3,ds4 vs dsX
ModifyGraph swapXY=1                    // Horizontal boxes
ModifyGraph margin(top)=20              // Top margin may be too small
```



See Also

Display, **AppendToGraph**, **ModifyGraph (traces)**, **ModifyViolinPlot**

Box Plots on page II-331, **Violin Plots** on page II-337

AppendXYZContour

AppendXYZContour [**/W=*winName* /F=*formatStr***][***axisFlags***] ***zWave*** [**vs** {***xWave*, *yWave***}]

The AppendXYZContour operation appends to the target or named graph a contour of a 2D wave consisting of XYZ triples with autoscaled contour levels and using the Rainbow color table.

To contour a matrix of Z values, use **AppendMatrixContour**.

Note: There is no DisplayContour operation. Use `Display; AppendXYZContour`.

Parameters

If you provide the *xWave* and *yWave* specification, *xWave* provides X values for the rows, and *yWave* provides Y values for the columns, *zWave* provides Z values and all three waves must be 1D. All must have at least four rows and must have the same number of rows.

If you omit the *xWave* and *yWave* specification, *zWave* must be a 2D wave with 4 or more rows and 3 or more columns. The first column is X, the second is Y, and the third is Z. Any additional columns are ignored.

If any of X, Y, or Z in a row is blank, (NaN), that row is ignored.

In a macro, to modify the appearance of contour levels before the contour is calculated and displayed with the default values, append "`;DelayUpdate`" and immediately follow the AppendXYZContour command with the appropriate **ModifyContour** commands. All but the last ModifyContour command should also have `;DelayUpdate` appended. DelayUpdate is not needed in a function, but DoUpdate is useful in a function to force the contour traces to be built immediately rather than the default behavior of waiting until all functions have completed.

On the command line, the **Display** command and subsequent AppendXYZContour commands and any **ModifyContour** commands can be typed all on one line with semicolons between:

```
Display; AppendXYZContour zWave; ModifyContour ...
```

Flags

axisFlags	Flags /L, /R, /B, and /T are the same as used by **AppendToGraph**.
/F=*formatStr*	Determines names assigned to the contour level traces. This is the same as for **AppendMatrixContour**.