image=*imageName*	Replaces the wave supplying the Z data for *imageName*. If /X or /Y is used, replaces the wave used to set the X or Y data spacing.
trace=*traceName*	Replaces the wave associated with *traceName*. With the /X flag, *waveName* will replace the X wave associated with *traceName*, otherwise it will replace the Y wave. Note that *traceName* is derived from the Y wave name; if you created a graph using `Display jack vs sam`, you would use `ReplaceWave/X trace=jack,newsam` to replace the X wave. For traces, the ReplaceWave/Y flag is equivalent to ReplaceWave with no flags.

Details

Waves are replaced in the graph specified by /W=*winName* otherwise waves are replaced in the top graph.

Updating a contour plot in response to replacing a wave can be time-consuming. If you must replace more than one wave, put all the commands separated by semicolons on a single line. In a macro, use **DelayUpdate** to prevent updates between command lines.

When using the allinCDF keyword, ReplaceWave cannot find waves buried in dynamic annotation text (for instance, using the \{} syntax in an annotation). ReplaceWave will not replace waves used for error bars, either.

Subsets of data, including individual rows or columns from a matrix, may be specified using **Subrange Display Syntax** on page II-321.

Examples

Make XY plot, then replace the waves:

```
Make fred=x, sam=log(x)
Display fred vs sam
Make fred2=2*x, sam2=ln(x)
ReplaceWave/X trace=fred, sam2
ReplaceWave trace=fred, fred2           // trace is now named fred2
```

Make contour plot with XYZ triplet waves, then replace the waves. Note the DelayUpdate commands after the first two ReplaceWave commands:

```
Make/N=100 junkx, junky, junkz          // Waves for XYZ triplets
junkx=trunc(x/10)                       // X wave for XYZ triplets
junky=mod(x,10)                         // Y wave for XYZ triplets
junkz=sin(junkx[p])*cos(junky[p])       // Z wave for XYZ triplets
Display; AppendXYZContour junkz vs {junkx, junky}  // Make contour plot
Make/O/N=150 junkx2, junky2, junkz2     // Make replacement waves
junkx2=trunc(x/15)
junky2=mod(x,15)
junkz2=sin(junkx2[p])*cos(junky2[p])
ReplaceWave/X contour=junkz,junkx2; DelayUpdate
ReplaceWave/Y contour=junkz,junky2; DelayUpdate
ReplaceWave contour=junkz,junkz2
```

This example is suitable for copying all the lines and pasting into the command line, or for use in a macro. If you are typing on the command line, you would want to put the ReplaceWave commands all on one line:

```
ReplaceWave/X contour=junkz,junkx2; ReplaceWave/Y contour=…
```

See Also

Trace Names on page II-282, **Programming With Trace Names** on page IV-87.

ReplicateString

ReplicateString(*str*, *totalNumCopies*)

The ReplicateString function returns a string containing *str* repeated *totalNumCopies* times.

The ReplicateString function was added in Igor Pro 9.00.

Example

```
String in = "αßγ"
String out = ReplicateString(in, 3)  // Returns "αßγαßγαßγ"
```

See Also

PadString, **ReplaceString**