5:	Maximum step size was exceeded in five consecutive iterations. This may mean that the maximum step size is too small, or that the function is unbounded in the search direction (that is, goes to -inf if you are searching for a minimum), or that the function approaches the solution asymptotically (function is bounded but doesn't have a well-defined extreme point).
6:	Same as V_flag = 791.

If you searched for a minimum:

`V_min`	Function value (Y) at the minimum.

If you searched for a maximum:

`V_max`	Function value (Y) at the maximum.

Variables for all functions:

`V_OptNumIters`	Number of iterations taken before Optimize terminated.
`V_OptNumFunctionCalls`	Number of times your function was called before Optimize terminated.

Waves for a multivariate function:

`W_extremum`	Solution if you didn't use /X=<*xWave*>. Otherwise the solution is returned in your X wave.
`W_OptGradient`	Estimated gradient of your function at the solution.

See Also

Finding Minima and Maxima of Functions on page III-343 for further details and examples.

References

The Optimize operation uses Brent's method for univariate functions. *Numerical Recipes* has an excellent discussion (see section 10.2) of this method (but we didn't use their code):

Press, William H., Saul A. Teukolsky, William T. Vetterling, and Brian P. Flannery, *Numerical Recipes in C*, 2nd ed., 994 pp., Cambridge University Press, New York, 1992.

For multivariate functions Optimize uses code based on Dennis and Schnabel. To truly understand what Optimize does, read their book:

Dennis, J. E., Jr., and Robert B. Schnabel, *Numerical Methods for Unconstrained Optimization and Nonlinear Methods*, 378 pp., Society for Industrial and Applied Mathematics, Philadelphia, 1996.

Override

```
Override constant objectName = newVal
Override strconstant objectName = newVal
Override Function funcName()
```

The Override keyword redefines a constant, strconstant, or user function. The *objectName* or *funcName* must be the same as the name of the original object or function that is being redefined. The override must be defined before the target object appears in the compile sequence.

See Also

Function Overrides on page IV-106 and **Constants** on page IV-51 for further details.

p

```
p
```

The p function returns the row number of the current row of the destination wave when used in a wave assignment statement. The row number is the same as the point number for a 1D wave.