descriptions are available in various places in this chapter. For a quick introduction, here is a table that lists the waves and variables used for fitting to a built-in function.

Wave or Variable	Type	What It Is Used For
Dependent variable data wave	Input	Contains measured values of the dependent variable of the curve to fit. Often referred to as "Y data".
Independent variable data wave	Input	Contains measured values of the independent variable of the curve to fit. Often referred to as "X data".
Destination wave	Optional output	For graphical feedback during and after the fit. The destination wave continually updates during the fit to show the fit function evaluated with the current coefficients.
Residual wave	Optional output	Difference between the data and the model.
Weighting wave	Optional input	Used to control how much individual Y data points contribute to the search for the output coefficients.
System variables K0, K1, K2 …	Input and output	*Built-in fit functions only.* Optionally takes initial guesses from the system variables and updates them at the end of the fit.
Coefficients wave By default, W_coef.	Input and Output	Takes initial guesses from the coefficients wave, updates it during the fit and leaves final coefficients in it. See the reference for CurveFit and FuncFit for additional options.
Epsilon wave	Optional input	*User-defined fit functions only.* Used by the curve fitting algorithm to calculate partial derivatives with respect to the coefficients.
W_sigma	Output	Creates this wave and stores the estimates of error for the coefficients in it.
W_fitConstants	Output	Created when you do a fit using a built-in fit function containing a constant. Igor creates this wave and stores the values of any constants used by the fit equation. For details, see **Fits with Constants** on page III-189. For notes on constants used in specific fit functions, see **Built-in Curve Fitting Functions** on page III-206.
V_<xxx>	Input	There are a number of special variables, such as V_FitOptions, that you can set to tweak the behavior of the curve fitting algorithms.
V_<xxx>	Output	Creates and sets a number of variables such as V_chisq and V_npnts. These contain various statistics found by the curve fit.
M_Covar	Output	Optionally creates a matrix wave containing the "covariance matrix". It can be used to generate advanced statistics.
Other waves	Optional input and output	User-supplied or automatically generated waves for displaying confidence and prediction bands, and for specifying constraints on coefficient values.

Curve Fitting Dialog Tabs

This section describes the controls on each tab and on the main pane of the Curve Fitting dialog.