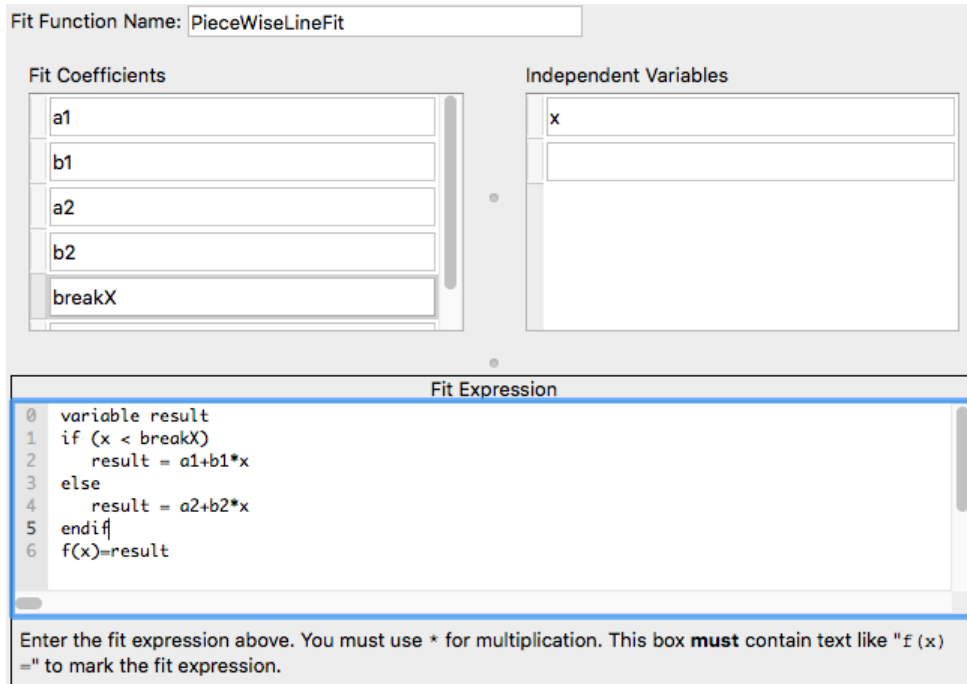


```

endif
return result
End

```

This function can be entered into the New Fit Function dialog. Here is what the dialog looked like when we created the function above:



Fit Function Name:

**Fit Coefficients**

- a1
- b1
- a2
- b2
- breakX

**Independent Variables**

- x

**Fit Expression**

```

0 variable result
1 if (x < breakX)
2   result = a1+b1*x
3 else
4   result = a2+b2*x
5 endif
6 f(x)=result

```

Enter the fit expression above. You must use \* for multiplication. This box **must** contain text like "f (x) =" to mark the fit expression.

## The New Fit Function Dialog Adds Special Comments

In the example above of a piece-wise linear fit function, the New Fit Function dialog uses coefficient names instead of indexing a coefficient wave, but there isn't any way to name coefficients in a fit function. The New Fit Function dialog adds special comments to a fit function that contain extra information. For instance, the PieceWiseLineFit function as created by the dialog looks like this:

```

Function PieceWiseLineFit(w,x) : FitFunc
  WAVE w
  Variable x

  //CurveFitDialog/ These comments were created by the Curve Fitting dialog. Alteri
  //CurveFitDialog/ make the function less convenient to work with in the Curve Fit
  //CurveFitDialog/ Equation:
  //CurveFitDialog/ variable result
  //CurveFitDialog/ if (x < breakX)
  //CurveFitDialog/   result = a1+b1*x
  //CurveFitDialog/ else
  //CurveFitDialog/   result = a2+b2*x
  //CurveFitDialog/ endif
  //CurveFitDialog/ f(x) = result
  //CurveFitDialog/ End of Equation
  //CurveFitDialog/ Independent Variables 1
  //CurveFitDialog/ x
  //CurveFitDialog/ Coefficients 5
  //CurveFitDialog/ w[0] = a1
  //CurveFitDialog/ w[1] = b1
  //CurveFitDialog/ w[2] = a2
  //CurveFitDialog/ w[3] = b2
  //CurveFitDialog/ w[4] = breakX

```

Special comments give the Curve Fitting dialog extra information about the fit function.

The function code as it appears in the text window of the New Fit Function dialog.

Independent variable name (or names, for a multivariate function).

Coefficient names.

This prefix in the comment identifies the comment as belonging to the curve fitting dialog.