# Timer User's Guide

Timer is an interpolation program that assumes an increasing data series. Key points are:

> ➢ Input is a tab-delimited text file (20,000 lines maximum) with age and as many as 9 related variables.
> ➢ An option exists to average duplicate age values. Otherwise, warnings will be issued for the duplicates.
> ➢ If any input variables have missing entries, replace the missing data values with -9999.
> ➢ The user provides the starting time and time step (Δt) for the interpolated output.
> ➢ An interval padding option (explained below) fills specified interpolated data spans with –9999.
> ➢ The tab-delimited interpolated output (30,000 lines maximum) contains age and the related variables.

Timer Dialog Box:
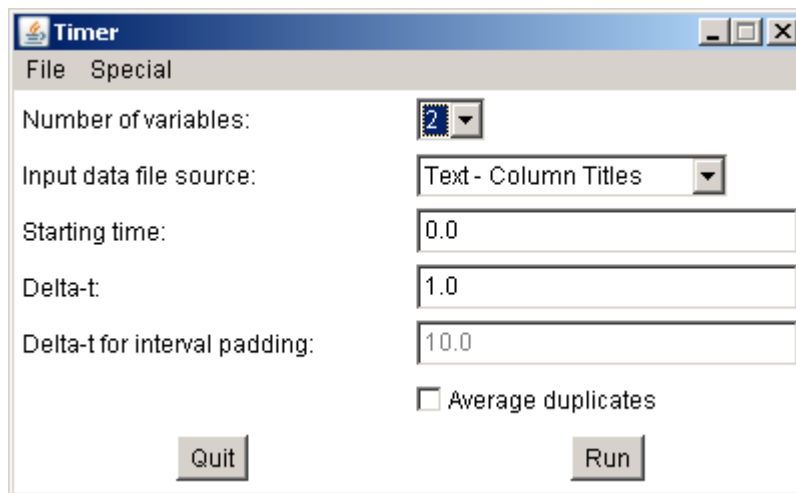
Number of variables: Select the number of variables in the input file. Do not count age as a variable.

Input data file source:
    Ager Program Output: Automatically skip the depth column when the input file is from Ager.
    Text – Column Titles: The input file must be a tab-delimited text file with column titles on the first line.
    Text – No Column Titles: The input file must be a tab-delimited text file without column titles.

Starting time: Enter the output series starting time, which may differ from the initial input series time.

Delta-t: Enter the desired time step (Δt) for the output series.

Delta-t for interval padding: If this Δt is met or exceeded from one line to the next in the input, then that interpolated data span is padded with –9999. Activate this option from the check item (**Interval Padding Mode Ctrl+M**) in the **Special** menu.

Average duplicates: Check this box to average data when duplicate ages occur in the input time series.

Once the input file has been chosen (**Open Data File… Ctrl+D**) from the **File** menu, the **Run** button is enabled on the *Timer* dialog box shown above. When clicked, a dialog box is displayed to name and save the output file. Program execution is completed.

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