ICARUS Timeline Generator Instructions

When the "Experiment Information and Data Directory" window pops up, enter experiment date in the form of "yyyymmdd" and experiment name in the fields specified. The main data directory should be the mother directory where all the timeline files will be saved, the code will create a subdirectory with the user-specified experiment date under this folder.

If there is no timeline created already, choose "Yes, I want to create a new timeline", and if a timeline file already existed, choose "No, I want to edit my existing timeline". Choose No if the user doesn't want to take any action.

Every time a new time line is created, there is an option to use the default experiment procedures that include common chamber experiment actions. If the user wants to keep this template, choose "Yes, I want to use the default" when the "Default Procedure" window appears. Otherwise, choose "No, I want to start with blank".

The entry for first column on the timeline table should be local time, in the form of HH:MM (24-hour clock). The code will automatically read the computer time zone and write on the header row, for example, America/Los_Angeles. If start with the default template, it's possible to modify the action items on the second column (and please remember to enter the initial conditions such as "seed/OH/VOC concentration is …" on the right column). If there is an action on the default list that is not part of the experiment, it can be either overwritten by the user with another action or will be deleted automatically as long as there is no time entry for that action in the same row later in this process. When the user is done modifying the timeline table, simply closed the window and every change will be saved automatically. If this is an overnight experiment, it's highly recommended the user enters "24 + second day time" for all the time entries, e.g., 5:32 should be 29:32.

The "Timeline Reorder" function is to autocorrect the order of actions based on the timestamps entered by the user, if the used wants to proceed with autocorrect, choose "Yes, I want to autocorrect my timeline". Note that this function will also *delete* all the steps without a time entry, which is helpful if the user starts with default timeline template. If the user wants to enter more times or actions later, please do not proceed with this step and choose "No".

If the user wants to save the current timeline, choose "Yes", otherwise choose "No". The timeline will be saved under the file name "exp date_exp name_Timeline.csv" where "exp_date" and "exp_name" are the user entries from the first step. Note that even when the user is editing an existing timeline, the existing filename will not be carried over. There will be a warning if the file already existed under the same directory and the user will be able to choose to overwrite the current file or not (a dialog window will allow the user to enter a new file name for the new timeline).

If the user wants to edit an existing timeline, only proceed with "I want to edit the entire timeline" if it hasn't been autocorrected, otherwise there is no way to add a step in this case. That is to say, if the timeline has already been autocorrected, proceed with "I want to make minor changes", which gives the user an option of editing one action "I want to edit one step", or adding one action "I want to add one extra step". The edit option will allow the user to choose one action from a dropdown menu to edit and the add option will allow the user to add one step after an action selected from the dropdown menu. This "Timeline Minor Edit" will keep showing up unless the user selects "I am done editing".