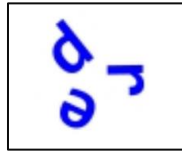


Advanced Tutorial: Movies

This tutorial will modify the Tutorial.es3 experiment file created in the Getting Started Guide to present moving stimuli using movies. The task is based on a variant of the Stroop effect, examining whether manipulations of words (e.g., rotation, mirror reversal, bending into circles), can eliminate the Stroop effect. The stimuli used in this task will arrange the traditional Stroop stimuli (color words presented in congruent/incongruent ink colors) in a circular pattern and rotate during presentation. The task is the same as the color-naming Stroop task; to name the color of the ink, regardless of the word.



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Task 1: Open Tutorial.es3 and Save to a New Filename

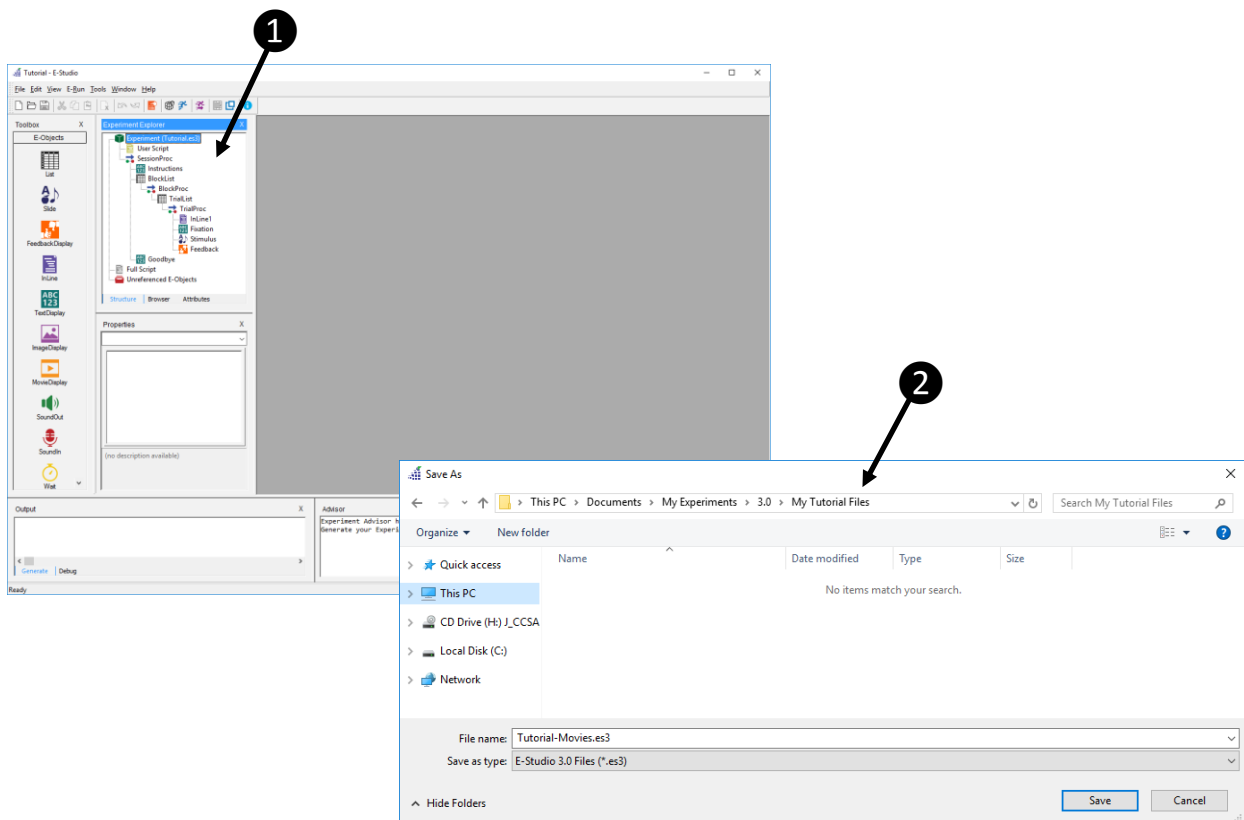
This task will build upon the experiment file created in the Getting Started Guide (i.e., Tutorial.es3). A completed version of the Tutorial experiment (AdvancedTutorialStart.es3) is included as part of the E-Prime installation in (\Documents\My Experiments\3.0\Tutorials).

- 1) **Open** the **Tutorial.es3** experiment file in E-Studio and **review** the **structure** of the experiment in the Experiment Explorer window.

Open the .es3 file created while working through the Getting Started Guide, or use the completed version of the file included in the E-Prime installation as the starting point (AdvancedTutorialStart.es3). The experiment provides instructions to the subject, followed by a series of trials presenting a fixation, a stimulus, and feedback regarding response accuracy and reaction time.

- 2) **Save** the Tutorial.es3 experiment file as **Tutorial-Movies.es3**.

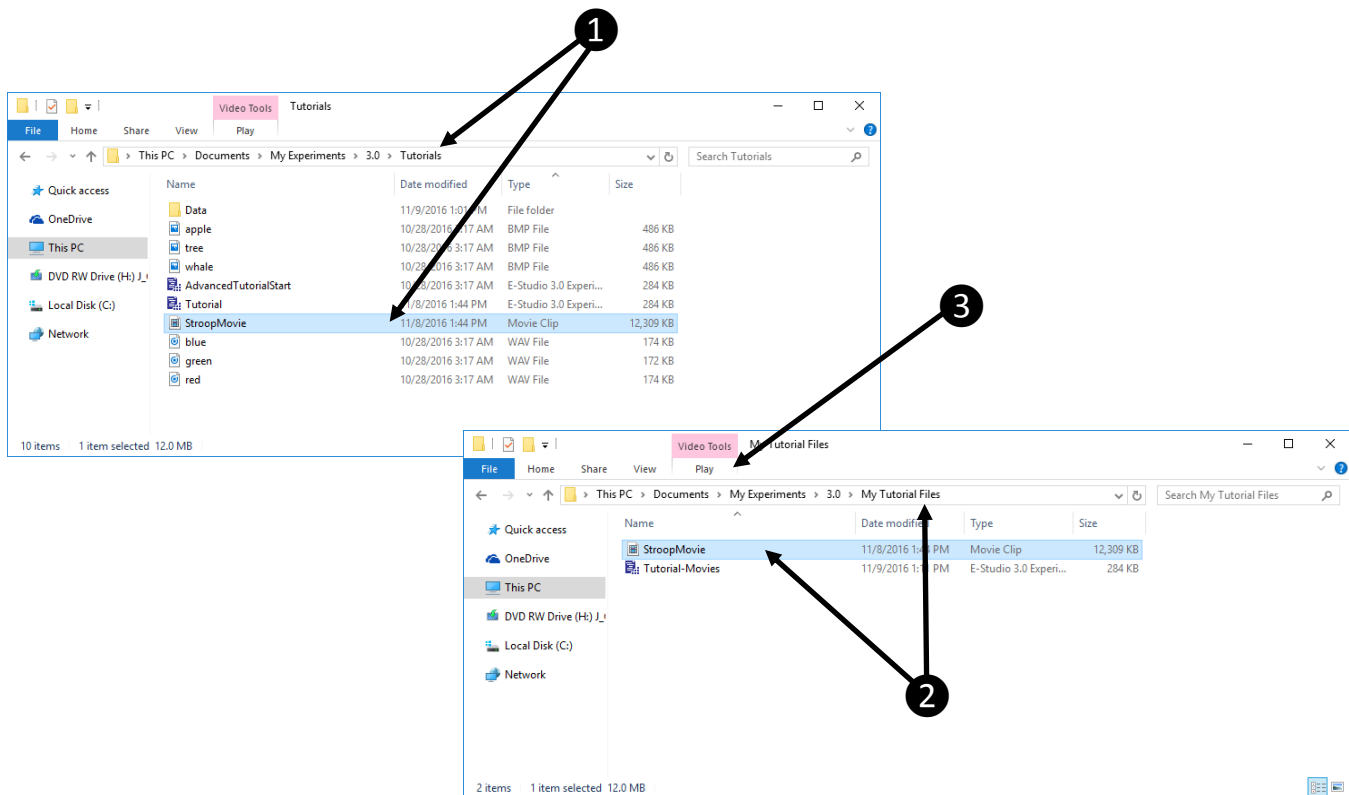
Use the Save As command from the File menu. The \Documents\My Experiments\3.0 folder is a good place to create sub-folders (e.g., \My Tutorial Files) to organize your experiments for convenient access.



Task 2: Locate and Place Resource Files

This task will copy a resource (i.e., movie) file from its location as part of the E-Prime installation to the folder in which the experiment file is located.

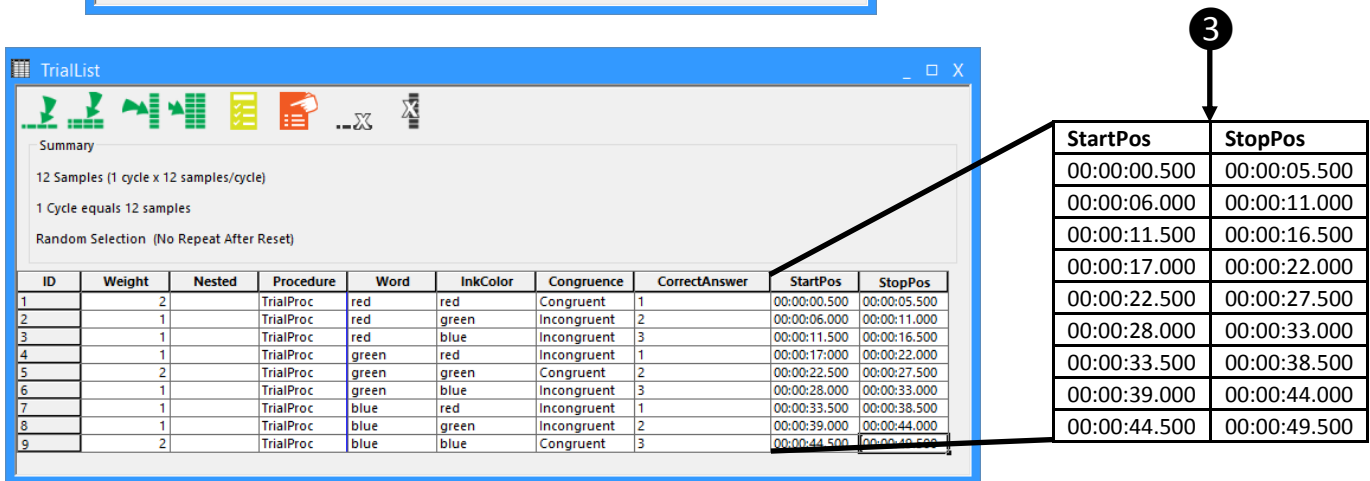
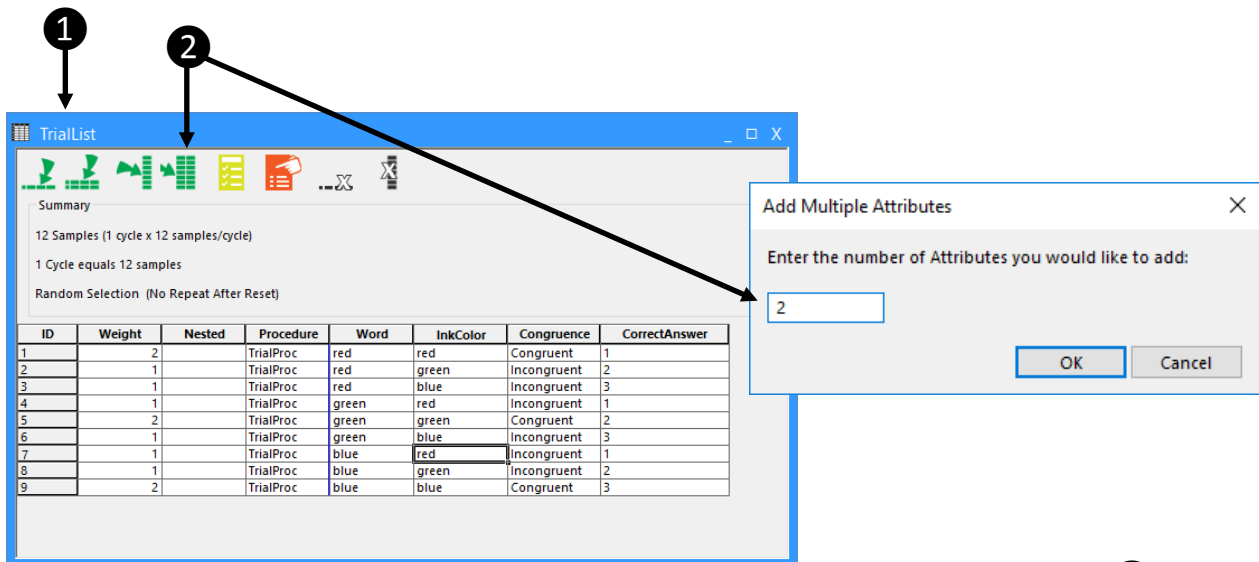
- 1) Using Windows Explorer, **locate** the **movie file** needed for the experiment, and right-click to **copy** it to the **clipboard**.
The *StroopMovie.mpg* file is installed to `\Documents\My Experiments\3.0\Tutorials`, and must be copied to the experiment folder.
- 2) **Navigate** to the **experiment folder**, and right-click to **paste** the **movie file** into the folder.
All resource files required by an experiment file must either be placed in the folder with the experiment file, or the experiment file must be directed to their location.
- 3) Using an available video playback application, **view StroopMovie.mpg**.
The movie file contains each of the stimuli (i.e., color words presented in a congruent/incongruent ink color) in distinct segments of the movie. The next task will lead you through the modification of the *TrialList* in the experiment file to identify the segments within the movie in order to display individual stimuli.



Task 3: Modify the TrialList

The StroopMovie.mpg movie file contains the stimuli (i.e., color words printed in a specific ink color) organized as separate sections within the complete movie. In this task, two attributes will be added to the TrialList to organize the data identifying the start and stop positions within the movie for each stimulus.

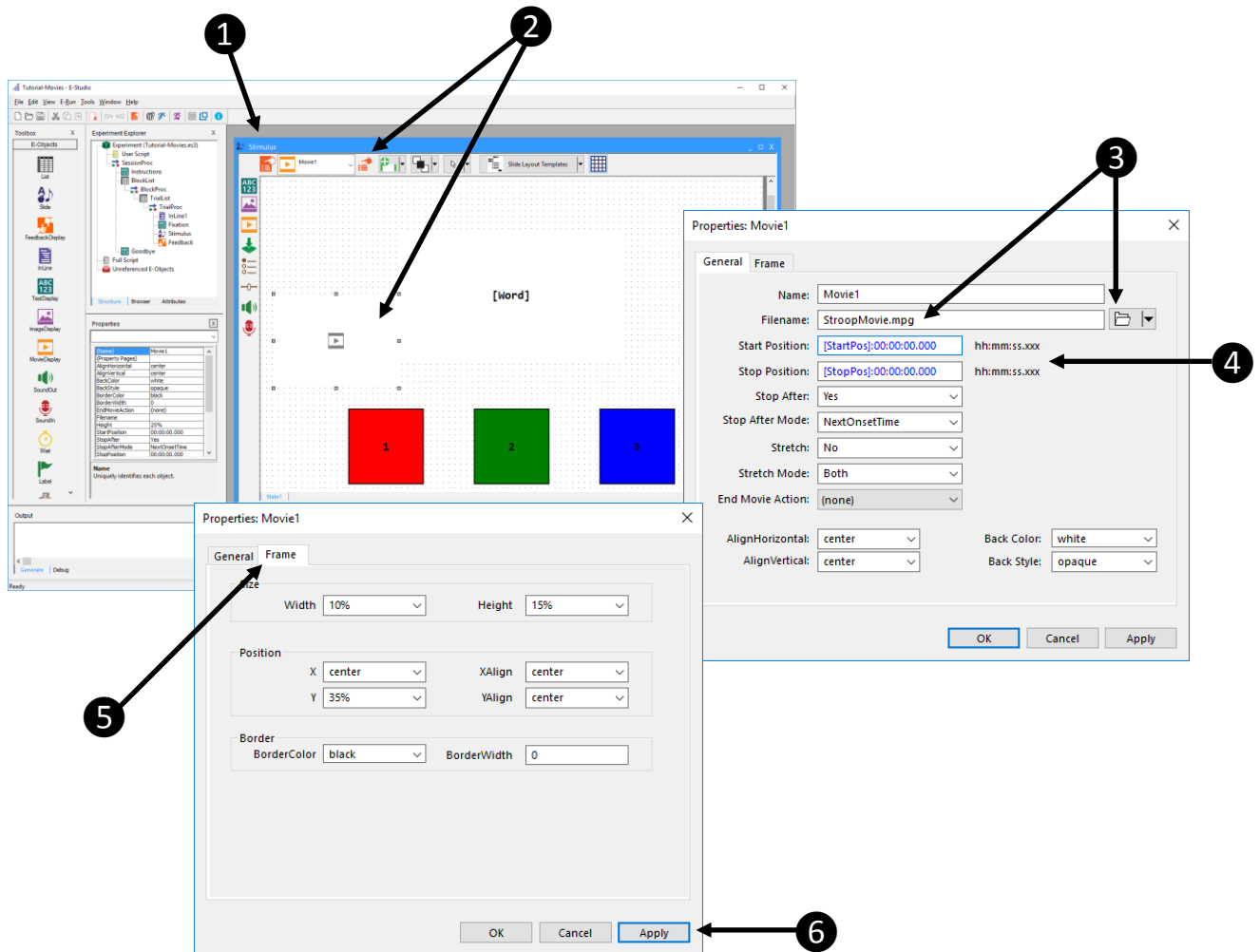
- 1) **Open** the TrialList object in the workspace.
In the next few steps, two attributes will be added to identify the start and stop positions within the movie to identify individual stimuli to be used on each trial.
- 2) **Add two attributes** to the TrialList. **Name** the new attributes “StartPos” and “StopPos.”
The StartPos and StopPos values will identify the specific segment within the StroopMovie.mpg file that shows the stimulus corresponding to the combination of the Word and InkColor attributes (e.g., the Word “red” displayed in the InkColor red)
- 3) **Enter** values in the StartPos and StopPos column/attributes as indicated in the image of the TrialList below.
Alternatively, the individual stimuli could be saved as individual movies. For this method, a single attribute (i.e., MovieFile) could be created to organize the names of the movie files require.



Task 4: Add a SlideMovie Sub-object to Stimulus

This task will add a SlideMovie sub-object to the Stimulus object in order to present the stimuli showing movement.

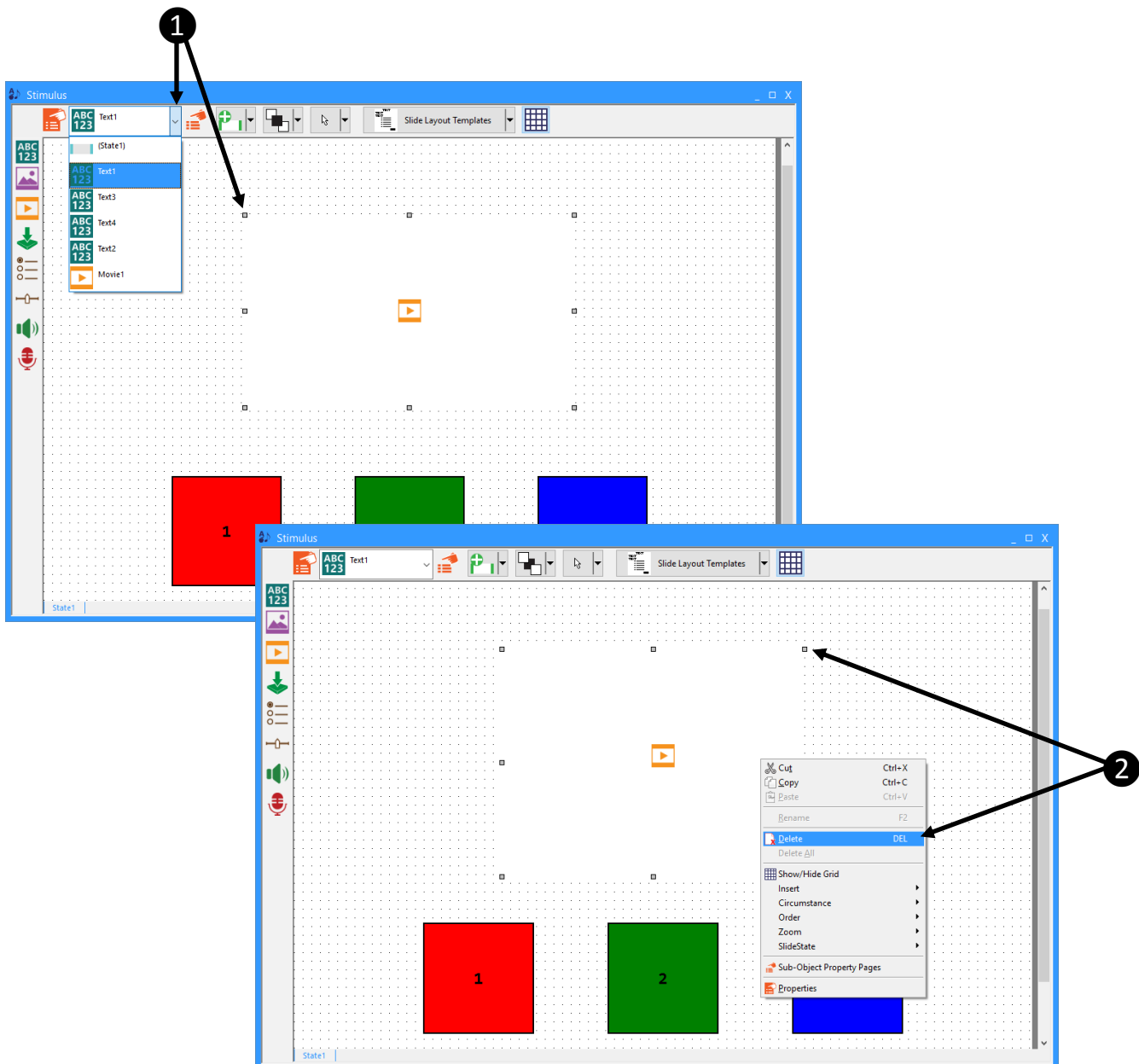
- 1) Returning to E-Studio, **open** the **Stimulus** object in the Workspace.
The Stimulus object currently uses a SlideText sub-object to present text stimuli. The next step will add a SlideMovie sub-object to allow presentation of a movie file.
- 2) **Add** a **SlideMovie** sub-object to the Stimulus object and **display** the **properties** for the sub-object.
- 3) On the General tab, use the Open button on the Filename field to **navigate** to the **folder** containing the movie file, **select StroopMovie.mpg**, and **click Open** to set the Filename field.
In the previous task StroopMovie.mpg was copied to the experiment folder.
- 4) In the Start Position and Stop Position fields, **refer** to the **[StartPos]** and **[StopPos]** attributes created during the previous task and **click** the **Apply** button.
Notice that the Start Position and Stop Position fields are automatically updated to reflect both the attribute reference and the required time format (hh:mm:ss.xxx) separated by a colon.
- 5) **Select** the **Frame** tab and set the properties as indicated in the image below to resize and reposition the sub-object.
The SlideMovie sub-object will be placed in the same position as the SlideText sub-object. In the next task, we will reset some properties of the SlideText sub-object so that the text overlays the image.
- 6) **Apply** the **properties**, and **close** the Movie1 property pages.



Task 5: Delete the SlideText Sub-object

This task will remove the SlideText sub-object (Text1) no longer needed in the experiment.

- 1) In the Stimulus object, **select Text1** from the sub-object dropdown menu.
The selection handles will indicate selection of the Text1 sub-object, but Text1 cannot be seen because it is positioned behind the SlideMovie sub-object.
- 2) While Text1 is selected, **right-click** and select Delete from the context menu to delete the Text1 sub-object.
Alternatively, you may delete the object using the Del key on the keyboard.



Task 6: Modify the Stimulus Duration

The duration of each segment of the movie presenting an individual stimulus is 5 seconds in length. This task will modify the duration of the Stimulus object to limit the duration of the stimulus display, and the amount of time permitted for response, to the duration of an individual segment.

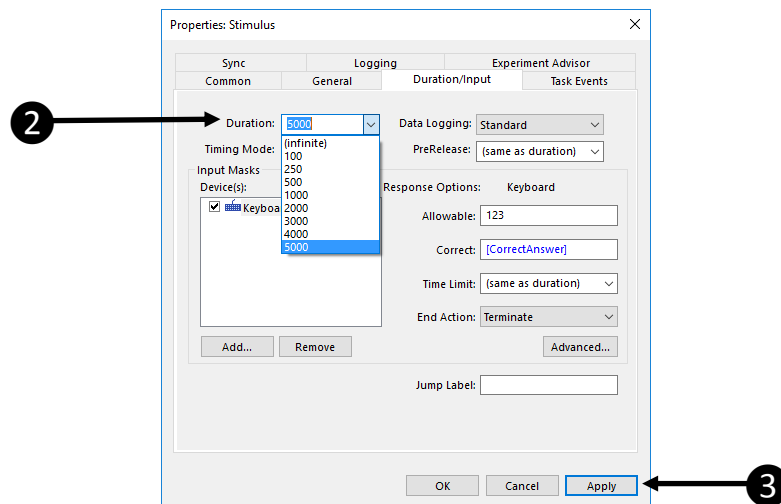
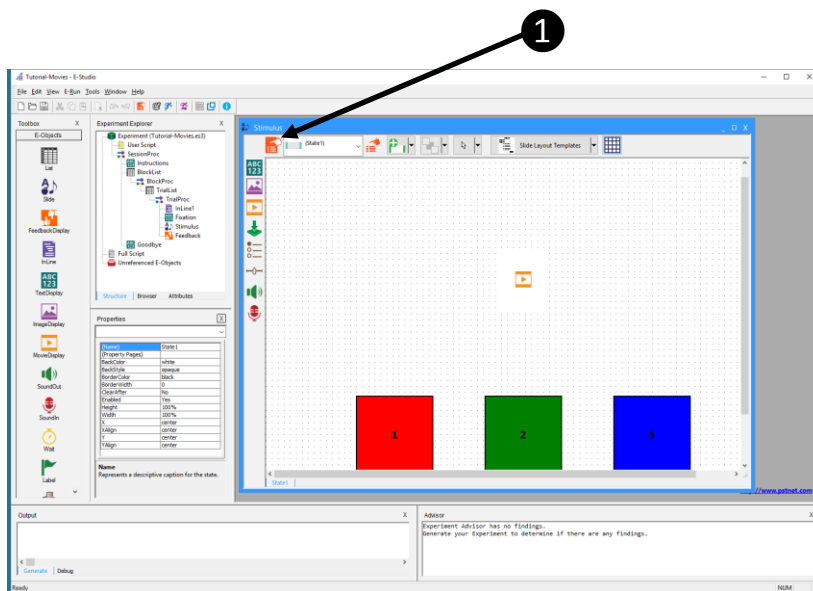
- 1) **Open** the **Stimulus** object in the Workspace and **display** its **Property Pages**.

The selection handles will indicate selection of the Text1 sub-object, but Text1 cannot be seen because it is positioned behind the SlideMovie sub-object.

- 2) On the Duration/Input tab, **set** the **Duration** field to “5000” using the dropdown menu, or by simply typing “5000” directly into the field.

The combined settings of the Duration and Time Limit fields will limit the amount of time the stimulus is displayed, as well as the amount of time allowed to respond.

- 3) **Apply** the **settings** and **close** the Stimulus object **Property Pages**.

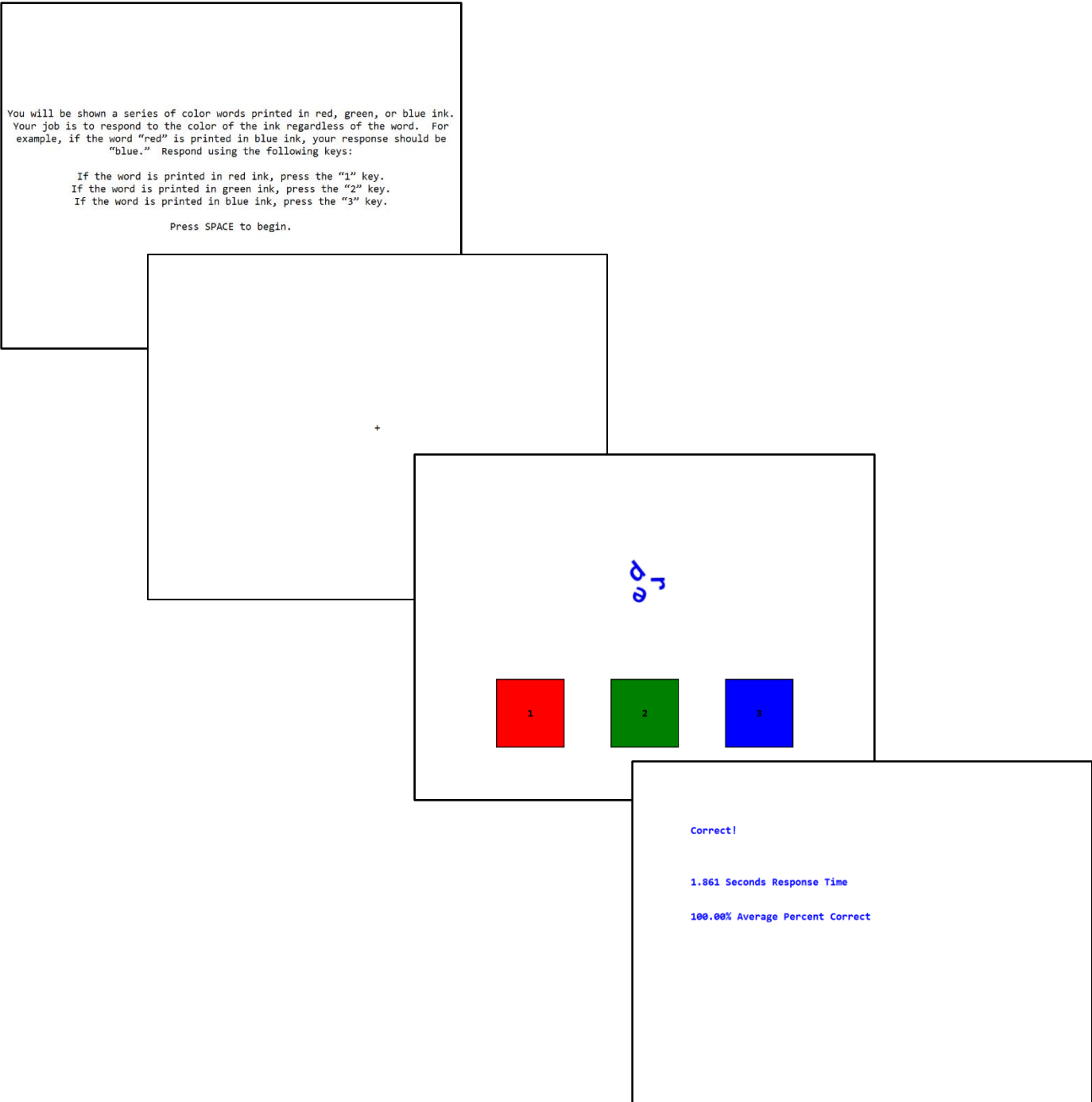


Task 7: Test the Experiment

This task will run the experiment file in E-Studio to test the modifications.

- 1) **Click** the **Run** button (or press F7) to test the experiment.

As in the experiment used as a template (i.e., *Tutorial.es3* or *AdvancedTutorialStart.es3*) the *Tutorial-Movies.es3* experiment will run a series of trials presenting a Stroop task. This variation of the Stroop experiment will present a color word (e.g., “blue”) displayed in a congruent/incongruent ink color. The stimuli will be arranged in a circular pattern, and will introduce motion through clockwise rotation. The task is to respond to the color of the ink using the keyboard, and feedback will be provided concerning reaction time and accuracy.



Task 8: Examine Results

This task will view the data file generated by the test run, and perform an analysis.

- 1) **Open** the **data file** in E-DataAid and use **Arrange Columns** to **limit the display** to desired variables.
As in the experiment used as a template (i.e., Tutorial.es3 or AdvancedTutorialStart.es3) the Tutorial-Script.es3 experiment will run a series of trials presenting a Stroop task. This variation of the Stroop experiment will present a fixation of varying duration prior to the stimulus.
- 2) **Perform** any desired **analysis** using the **Analyze** command.
The analysis defined below examines the average reaction time in response to the stimulus by congruence (when comparing Word and InkColor).

1

Tutorial-Movies-1-1 - E-DataAid

	Subject	Session	Block	Trial	Word	InkColor	Congruence	StartPos	StopPos	Stimulus.ACC	Stimulus.CRESP	Stimulus.RESP	Stimulus.RT
1	1	1	1	1	green	blue	Incongruent	00:00:28.000	00:00:33.000	1	3	3	1985
2	1	1	1	2	red	red	Congruent	00:00:00.500	00:00:05.500	1	1	1	2671
3	1	1	1	3	red	green	Incongruent	00:00:06.000	00:00:11.000	0	2	1	2983
4	1	1	1	4	red	red	Congruent	00:00:00.500	00:00:05.500	0	1	3	3583
5	1	1	1	5	green	green	Congruent	00:00:22.500	00:00:27.500	1	2	2	1327
6	1	1	1	6	blue	red	Incongruent	00:00:33.500	00:00:38.500	1	1	1	2068
7	1	1	1	7	red	blue	Incongruent	00:00:11.500	00:00:16.500	1	3	3	2940
8	1	1	1	8	blue	blue	Congruent	00:00:44.500	00:00:49.500	1	3	3	2610
9	1	1	1	9	green	red	Incongruent	00:00:17.000	00:00:22.000	1	1	1	3730
10	1	1	1	10	blue	blue	Congruent	00:00:44.500	00:00:49.500	1	3	3	2139
11	1	1	1	11	blue	green	Incongruent	00:00:39.000	00:00:44.000	1	2	2	3236
12	1	1	1	12	green	green	Congruent	00:00:22.500	00:00:27.500	1	2	2	2053

For Help, press F1 Rows Displayed: 12 NUM

2

Analyze

Name: Mean RT by Congruence

Variables:

- Stimulus.ACC
- Stimulus.CRESP
- Stimulus.DEVICE
- Stimulus.DurationError
- Stimulus.OnsetDelay
- Stimulus.OnsetTime
- Stimulus.OnsetToOnsetTime
- Stimulus.RESP
- Stimulus.RT
- Stimulus.RTTime
- StopPos
- StudioVersion
- Subject
- TestMode

To construct a table, drag the variable names on the left to the lists on the right.

To remove a variable from a list, drag it back to the Variable list on the left.

Columns: (Double click a variable to bin)
Congruence

Rows: (Double click a variable to bin)

Data: (Double click a variable for stats.)
Stimulus.RT:Mean

Comments:

Filters:

Save Analysis... Load Analysis... Filter... Run... New Close