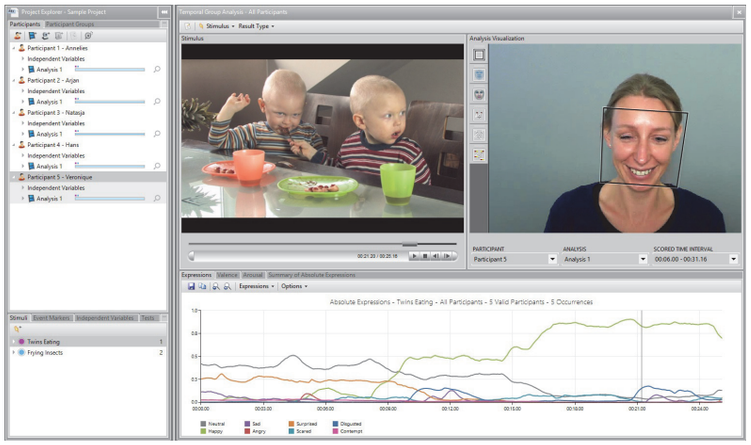
FaceReader
Project Analysis in a Nutshell

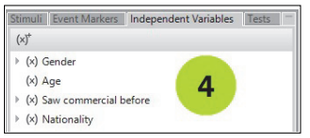


SETUP

1. **Participants** - Add Participants.

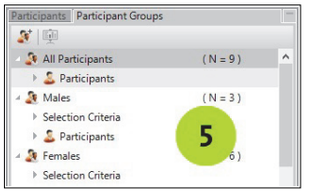
2-3.Analyses - Add video [2] or camera [3] analyses.

4. **Independent Variables** - The independent variables *Age* and *Gender* are present by default. Optionally enter more independent variables, like whether the participants saw the commercial before, or their native language (**Project** > **Independent Variable** > **Add Independent Variable**).

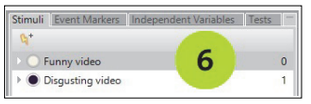


Double-click **Independent Variables** under a participant name to score them. *Age* and *Gender* can be estimated by FaceReader, or entered manually.

5. **Participant Groups** – Create participant groups (**Participant Group** > **Add Participant Group**) based on the values of the independent variables. For example, create age groups, groups based on gender, or groups based on previous experience of the participants with the commercial.

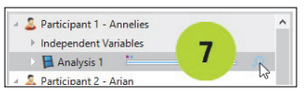


6. **Stimuli and Event Markers** – Define stimuli or event markers (**Project** menu) to mark episodes of interest. Stimuli have a fixed duration and can be linked to a video shown to the test participants.



ANALYSIS

7. Click the magnifying glass button next to an analysis to open it.



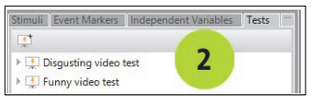
8. Click the **Start analysis** button to carry out the analysis.
9. The **Image quality** bar should cross both dashed lines. Otherwise, improve lighting or reposition your camera.
10. Score the stimuli or event markers during the analysis, or open the **Timeline** window after the analysis and then score them. Double-click **Scored Stimuli** in the Project Explorer to edit them.
11. View the analysis results for this participant. Click the **Select window** button to select other graphs or tables.

12. Choose **File** > **Export** to export the data for the participant, analysis, or entire project.

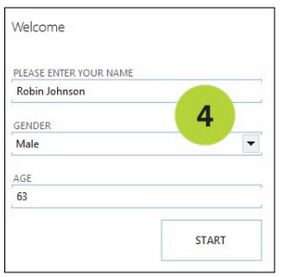
STIMULUS PRESENTATION TOOL

Use the stimulus presentation tool to automatically show the stimuli to the test participants and synchronize them with the analyses.

1. In FaceReader, choose **File** > **Settings** > **Data Export** and select the checkbox **Enable External Control (API).**
2. **Tests** – Add tests and select the camera and the stimuli to show to the test participants. Optionally choose to let participants enter their own name, age and gender and randomize the presented stimuli.

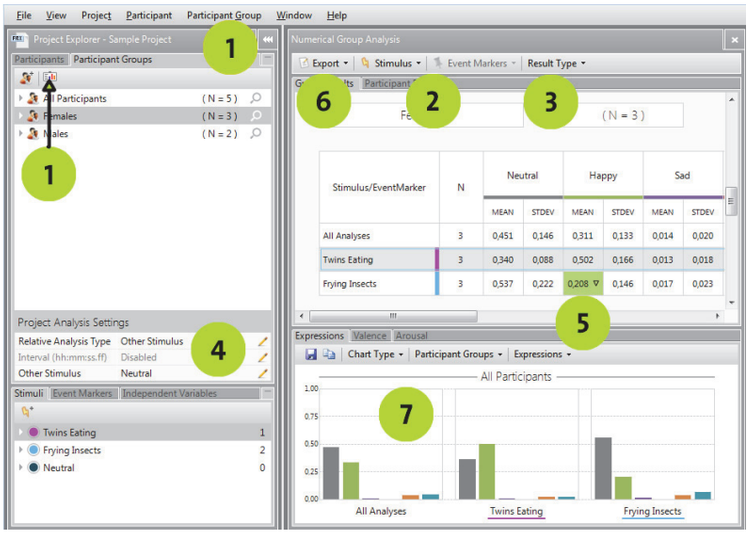


3. Start the Stimulus Presentation Tool on the test participant computer and follow the instructions to connect with the FaceReader computer.
4. Select a test and click **Start**. Fill in the participant details and click **Start** again, or let the participant do this.



Participants are automatically added when you use the stimulus presentation tool. Also, analyses are automatically carried out. Watch the **Image quality** bar [9 on previous page] when the test runs.

NUMERICAL GROUP ANALYSIS



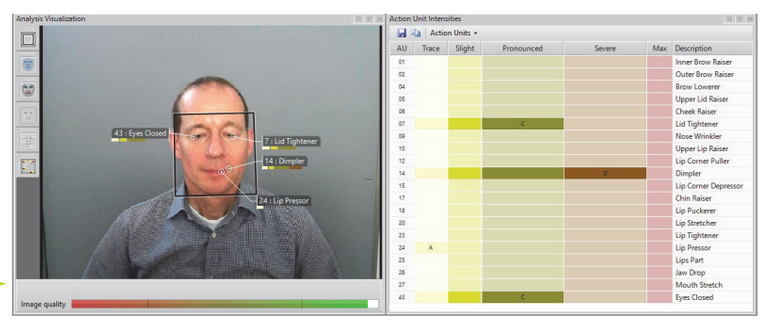
1. Choose **Participant Group** > **Open Numerical Group Analysis** to calculate absolute expression intensities for participant groups. Alternatively, click the **Open Numerical Group Analysis** button on the toolbar.
2. Choose stimuli or event markers from the lists on the toolbar to get the results per stimulus or event marker.
3. Optionally choose **Relative** from the **Result Type** list on the toolbar to calculate expression intensities relative to averages in another part of the analysis.
4. Set the episode from step 3 in the **Project Analysis Settings** window and then select the stimulus or event marker from the list on the toolbar [2].
5. Click a participant group or stimulus name for T-tests on the expression intensities. A colored cell indicates a significant difference. An open triangle indicates P<0.05. A closed triangle indicates P<0.01.
6. Choose **Export** from the toolbar to export the numerical group analysis results for participants or groups.
7. The bottom window shows bar graphs or box plots of expression intensities, valence, or arousal for the selected participant groups.

TEMPORAL GROUP ANALYSIS

1. Choose **Participant Group** > **Open Temporal Group Analysis** to view the stimulus video together with the participant video and the analysis for the participant group.
2. Select a stimulus from the list on the toolbar.
3. Select a participant and analysis in the **Analysis Visualization** window.
4. Optionally choose **Relative** from the **Result Type** list on the toolbar to calculate expression intensities relative to the average intensities in another episode. Set the episode in the **Project Analysis Settings** window [4 in picture on previous page] and select the stimulus from the list on the toolbar [2].
5. The bottom window shows absolute or relative expression intensities, valence, or arousal for the participant group over time, or a pie chart of absolute average expressions.

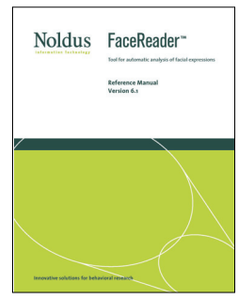
MODULES

You can also extend your FaceReader license with the Action Unit Module, to analyze action units of the Facial Action Coding System (FACS).



MORE INFO?

See the FaceReader Reference Manual that opens when you press **F1** in the program, can be accessed with the Windows **Start** menu, and can be downloaded from www.noldus.com/downloads.



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