Data output structure:

**Session**: Includes all experiment parameters and logs all the events generated and measured during the experiment.

Initiated using initSession function.

* 1. **Paradigm**: paradigm name as defined in Main function.
  2. **datetime**: beginning of experiment date and time according to system clock.
  3. **Version:** Matlab versionby which the experiment was performed.
  4. **Subjnum:** subject number (validated for repetitions).
  5. **RespCounterBalance**: Indicates whether the current run is counterbalanced. 'n' = house stimuli and different orientation discs should be identified by pressing the left key. Same orientation discs and face stimuli should be identified by pressing the right key.

'y' = house stimuli and different orientation discs should be identified by pressing the right key. Same orientation discs and face stimuli should be identified by pressing the left key.

* 1. **params**: experiment parameters as set by initParams function.
     1. **screen:**
        1. **res**: screen resolution parameters
           1. **width**
           2. **height**
           3. **pixelSize**
           4. **hz**: screen refresh rate
        2. **rect**: ptb screen size in pixels.
        3. **bgColour**: background colour.
        4. **viewDist\_cm**: subject's distance from the screen.
        5. **dim**: different measures of screen dimensions
           1. **cm**
           2. **pix**
           3. **deg**
           4. **ppd**: pixel density
        6. **rgbGamma**: RGB gamma correction parameters.
     2. **timing**:
        1. **minFix**: minimum duration of fixation cross.
        2. **addFix**: maximum duration to add to the minFix
        3. **ImDur**: display duration of the image and discs stimuli.
        4. **ifi**: inter-frame-interval.
        5. **ImFrames**: number of frames to display the stimuli. As calculated from the image duration and screen frame rate.
        6. **ImDurForFlip**: display duration of the stimuli with half a frame removed.
        7. **refreshRate**: measured screen refresh rate.
     3. **response**: response box mapping as determined by RespCounterBalance. 1= left key, 2= right key (not used in this exp), 3= second from left key, 4= third from left key, 5= upper key.
     4. **procedure**:
        1. **numBlocks**: number of blocks per phase.
        2. **numTrials**: number of trials per block.
        3. **numStim**: number of different stimuli for each condition.
        4. **Instructions**:
           1. **Disc**: instructions for the first and second phase according to RespCounterBalance.
           2. **Image**: instructions for the third phase according to RespCounterBalance.
           3. **End**: end of experiment message.
     5. **Stimuli**: create in the code
        1. **stimContrast**: contrast by which the stimuli are displayed.
        2. **stimFolder**: name of the folder where the stimuli are saved
        3. **pos**: move in the code (form screen params)
           1. **CTR**: center of the screen.
           2. **ULdisc**: upper left disc location in pixels.
           3. **URdisc**: upper right disc location in pixels.
           4. **LLdisc**: lower left disc location in pixels.
           5. **LRdisc**: lower right disc location in pixels.
        4. **text** – move in the code (form screen params)
           1. **font**
           2. **size**
           3. **colour**
     6. **defaultpath**: folder path of the experiment.
  2. **subject:** Includes information about the subject.
     1. **Age**
     2. **Gender**
     3. **Hand:** dominanthand
  3. **Notes**: experimenter's notes regarding the current run.
  4. **Stimuli:** stimuli which are relevant regardless of the trial parameters**.** Initiated using initStimuli function.
     1. **Fixation:** image of an 11\*11 white (255) fixation cross with a gray background (128).
     2. **Triggers:** 1X8X3 RGB pixel triggers to be identified by the vpixx functions for an accurate timing estimation.
        1. **Image**
        2. **Fixation**
        3. **Info**
  5. **Phase:** event log of the experimental phases. Each row indicates a different phase (1-3).
     1. **StartExpPtb:** phase starting time in seconds according to system clock.
     2. **StartExpVpixx:** phase starting time in seconds according to Vpixx register device clock.
     3. **Blocks:** event log of the experimental blocks within each phase. Each row indicates a different block (1-5).
        1. **StartBlockPtb:** block starting time in seconds according to system clock.
        2. **StartBlockVpixx:** block starting time in seconds according to Vpixx register device clock.
        3. **Trials:** event log of the experimental trials within each block. Each row indicates a different trial (1-72).
           1. **ImageType:** image condition as specified in the phaseTrialList (see below).
           2. **ImageNum:** image stimuli number as specified in the phaseTrialList (see below).
           3. **DiscOrientation:** orientation of the discs as specified in the phaseTrialList (see below).
           4. **DiscRotation:** whether to change the orientation of one of the discs as specified in the phaseTrialList (see below).
           5. **DiscLocation**: which disc to change as specified in the phaseTrialList (see below).
           6. **imName**: name of the image to display including its path as generated by initTrial function.
           7. **Discs**: 4 discs as generated by rotateDiscs function according to the parameters in phaseTrialList.
           8. **ExpImTime**: expected time for the image to appear according to Vpixx register device clock.
           9. **ImTime**: actual time the image appeared according to the Vpixx register device clock. Identified by pixel trigger.
           10. **ImDur**: display duration of the stimuli (image and discs simultaneously displayed). Corrected to screen refresh rates.
           11. **FixTime**: actual time the fixation appeared according to the Vpixx register device clock. Identified by pixel trigger.
           12. **FixDur**: display duration of the fixation. Corrected to screen refresh rates.
           13. **CorrAns**: which is the correct answer according to phaseTrialList.
           14. **Response**: subjects' response log mapped from the response box as coded in the response params. 99=wrong button press, -1=no response.
           15. **Accuracy**: whether the response matched the correct answer. 1=yes, 0=no, -1=no response.
           16. **RT**: Response time from the display of the stimuli. Corrected according to vpixx device register delay (5ms).
           17. **RTfromStart**: response time according to the Vpixx register device clock.
     4. **phaseTrialList:** List of all trials in the current phase as generated by initTrialList function. Divided into 5 blocks of 72 trials. Col 1 = image condition (1=face, 2=house, 3=noise), col 2 = image stimuli (1-12 for each condition), col 3 = discs orientation (1=vertical, 2=horizontal), col 4 = whether to change the orientation of one of the discs (1=same, 2=change), col 5 = which disc to change (0=non, 1=upper left, 2=upper right, 3=lower left, 4=lower right).