Scripts

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Unity

Seahaven

Script	Important Variables
VRTK_Touchpad walking	• Footstep sounds • Walking speed
VRTK_headset Collision	• Ignore Target with Tag X
Pupil Gaze Tracker	• Pupilrecording • EyesOpen • RayDistance • Server IP • Service Port • trainingStarted
PupilCalibMarker	• Points for validation
EyeGazeRenderer	• _image.enabled
recorder	• IsRec • VPNum (counts automatically, only specify when needed)
Screenshot	• My Camera • ResWidthN • resHightN
Auto Intensity	• Day rotate speed • All other parameters you want to play with
(ShowMap)	Not in Seahven 2.0

DrawViewingPath:

Script	Important Variables
DrawViewingPath *	• Randomize • VPNum (if unspecified it takes last subject recorded) • RayDistance

Commands:

Key	Effect	Associated Script(s)
R	Start/Stop pupil data recording	PupilGazeTracker
C	Start Calibration (17 points, whole field)	PupilCalibMarker -> PupilGazeTracker
V	Start 2D Validation (9 points, central)	PupilCalibMarker -> PupilGazeTracker
D	Start 3D Validation (9 points, central)	PupilCalibMarker -> PupilGazeTracker
S	Stop Callibration & Validation	PupilCalibMarker -> PupilGazeTracker
Q	Stop all recordings, save them and quit game	PupilGazeTracker, recorder
T	Start VR Training -> stat pupil recording + Imoty recording, transform position to start position	PupilGazeTracker -> recorder
F	Fast validation with one point	PupilGazeTracker -> recorder
P	Pause the session and all recordings	PupilGazeTracker -> recorder

Recordings:

File Name	Data	Script
EyesOnScreen	Variable: Gazes = 2D coordinates of gaze (normalized) =(CenterX,CenterY) or (0.000000, 0.000000)	PupilGazeTracker
EyeBoxPos	Variable: BoxPos = 3D coordinates of box position	PupilGazeTracker
positions	(x,y,z,rx,ry,rz,timestamp (in sec),PupilTimeStamp)	Recorder
Validation2D+Num	Degree of error for each point + avg + time + last cal + error in x and y dir (+avg)	PupilGazeTracker
Validation3D+Num	Degree of error for each point + avg + time + last cal	PupilGazeTracker
(MapViews)	Duration of each time the map was looked at	ShowMap
ViewedHouses	HouseViewed, distance, timestamp (sec. since start)	DrawViewingPath

- HouseOut:
  House# -> House was looked at
  NH -> No house was looked at
  Distance =
    0 -> Low confidence
    200 -> No object hit (eg: sky)
    D -> House/obj. hit

Matlab: (for new data format of Seahaven 2.0)
All important variables can be set on the top of each sript. Outputs are automatically saved.

Script	Input	Variables	Output

ValidationAnalysis	All Validation_VP#_Val#.txt files	• PartList: Which Subjects do you want to analyze
		• NumVals: How many validations were doen for each subject
		• Path: Where should results be saved
			• ValidationStatsSJ.mat(table): For individual subjects
			• OverallStats.mat
			  • OverallMeanPoints(double
			  • OverallMeanSubjects(double)
			  • OverallVariancePoints(double)

PositionAnalysis	Positions_VP#.txt	• PartList • sourcepath	• Map_VP_#.mat • North_VP_#.mat • Path_VP_#.mat
Analysis_Map	• Path_VP_# • North_VP_# • (map_VP_#)	• PartList • savepath	• OverlaidMap.jpeg • IndividualNorth.jpeg
Heatmap3D	3DHeatmap(RandomX)_VP#.txt	• VPNum • Condition • Savepath	• Heatmap (.jpeg) • .mat file of x,y,d,c (c=density at point)
AnalyzeAllViews	ViewedHouses_VP	• PartList • savepath	• TimeLine (.jpeg) • NumViewsD (.mat)
Analysis_ViewedHouses	NumViewsD.mat	• PartList • savepath	• TotalNum{VPRange}.mat • ViewingStats{VPRange}.mat
GazeStandVSWalk	• EyesOnScreen_VP#.txt • Positions_VP#.txt	• PartList • sourcepath	• GazeWalkStand{VPRange} (.jpeg) • Variances{VPRange} (.mat)
LeftRightTurns	• EyesOnScreen_VP#.txt • Positions_VP#.txt	• PartList • Sourcepath • IntervalLength • TurnSignificance	• GazeLeftRight{VPRange} (.jpeg) • TtestsLR{VPRange}.mat
Entropy	• ViewedHouses_VP#	• PartList • SourcPath • Intervallength	• Entropy_IntervalLen_SJ#(.jpeg) • Entropy_IntervalLen_{VRRange}(.mat)