

UXF - Framework for creating Virtual Reality human behavior experiments in Unity

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Software

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Recent advances in technology has meant that Virtual Reality (VR) is now a feasible tool for performing human behaviour experiments. Scientists dream of being able to have full control over human sensory inputs, as well as complete measurement of responses. VR is coming closer to fulfilling this wish, but researchers must grapple with complex commercial tools (e.g. Unity) in order to create content. We present the Unity Experiment Framework (UXF), an open source toolkit for developing virtual reality experiments in Unity. UXF contains a suite of programming patterns, data collection features, and user interfaces which can be used by researchers to speed up development. This talk discusses the general uses of VR in human behaviour research, the conceptual design of UXF, and how UXF features are used in real experiments in psychology & neuroscience.