**INVITATION TO TENDER**

**ITT/PsychoJS1**

**Supporting information**

# Background

This tender invitation is to create PsychoJS, a JavaScript port of the PsychoPy Python library, and a server software platform that can run the studies. The tender is required in support of a grant application, the decision of which will be known about by August 2017 and the project will last for a maximum of 2 years. As such, quotes for the tender need to be valid for 6 months beyond that period.

Information about which tender has been successful will be available in late March 2017. Information about whether funding has been awarded for *any* tender to proceed, will be available in August.

The nature of this funding application means that there is an **upper limit on the current tender contract of £90,000** over the course of the project and, once started, this will need to be fully spent within 2 years from the start date (anticipated to be November 2017).

We would anticipate the PsychoJS library being open-source. The server software will be closed source and terms of licensing/IP are up for negotiation.

# PsychoJS library

A proof-of-principle has already been created demonstrating the way the library might work using text and image-based stimuli. It is very much expected that the current contract extends that work. Any tenderer wishing to start from scratch will need to achieve the current functionality as well as adding the features laid out in this tender process.

One thing that is critical for the JS library is that it has excellent temporal precision (e.g. in collecting the time of a key-press in response to a visual stimulus as accurately as possible, which means needing to know when the screen vblank occurred). This precision will require a high degree of knowledge about the facilities of modern hardware-accelerated graphics options in web environments.

# Web server for experiments

In addition to the JavaScript library for running the experiments we need a web environment to be created with an easy user interface for non-technical users allowing:

* JavaScript experiments to be served to experiment participants
* A log-in system for users
* A system for tracking of authorization keys and payments (although the university store might be used for the latter)
* Projects hosted on the server should be accessible by git for easy sync and version control
* We need to be able to track usage (number of active projects, number of experiments launched etc) for the server

Hardware for the server will be provided by the university data center. This will be configurable as needed but is likely to be based on high-performance intel-based hardware with a Linux OS.

# Sustaining the project in the future

The funding body will want to know that the project is sustainable long-term (they will not fund something that might not last more than a few years). In addressing this we will make small charges to those using the web server to cover ongoing costs. The server needs a payment system and needs to be able to track the users/projects for which payment has been made.

While the purchaser is happy to negotiate the rights to any future profit that these charges may result in, the funding body and the university will need to be involved in any such agreement as well. Therefore, the tenderer is welcome to provide information about their *preferred* arrangements around intellectual property, licensing and future profits but these will be subject to change before the final contracts are signed. Please let us know your preferred arrangement and any strict requirements that you may have.

Further options may be available for the successful tenderer to profit from the project in terms of offering premium services to experimenters (such as options to convert the web experiments into android/iOS apps, provision of training workshops and consultancy to existing users) and space is provided in the application form to identify optional enhancements you would like to make both within the contract and as premium enhancements beyond the initial contract. We will need to explain such premium features to the funder during the application.

# Discussion and contract

If you have any questions about the bid, please contact lpzjwp@nottingham.ac.uk with queries.

We also reserve the right, after the tender bids are submitted, to continue discussion with the successful tenderer, working towards a final contract that optimises the chances of a successful bid to the funding body.