TrackIR Tool for Matlab Setup Guide

This document describes how to configure Matlab to use the TrackIR Tool for Matlab and how to run the demo.

TrackIR Configuration

In order to use the TrackIR Tool for Matlab, the TrackIR system must be installed and operational. To do this, download the latest TrackIR software directly from NaturalPoint: www.trackir.com/download. This will install the necessary drivers for TrackIR. Configure the TrackIR camera as described by the manufacturer. The TrackIR installation may be verified using the TrackIR demo application.

General Matlab Configuration

In order to use the TrackIR Tool, it is first necessary to configure the Matlab path. Assuming that the TrackIR Tool have been installed in a folder represented by

> TRACKIRTOOLINSTALLDIR
> (typically C:\Program Files\Sensimetrics\TrackIR Tool for Matlab\),

please add the following folders to the Matlab path:

- TRACKIRTOOLINSTALLDIR
- TRACKIRTOOLINSTALLDIR\Demos
- TRACKIRTOOLINSTALLDIR\Demos\TRDemoSupportFunctions

Once the appropriate folders have been added to and saved in the Matlab path, the TrackIR Tool should be available regardless of the current Matlab working folder.

TrackIR Tool Demos

Assuming that the Matlab path has been properly configured to include the "TRACKIRTOOLINSTALLDIR\Demos" folder, the TrackIR Tool Demos should be available to the user regardless of Matlab's current working directory.

Type 'help ISToolDemos' at the Matlab command prompt to see a list of available demos.

These demos are simple Matlab scripts that are designed to demonstrate the TrackIR Tool functionality. They are intended to be stepped through in 'keyboard' mode.

ISDemo_Matlab:
This demo recreates the basic display from the TrackIR 'ISDemo' application for an orientation tracker using a Matlab figure. For this to work properly, at least one attached TrackIR tracker must have orientation output available. The image displays the current yaw, pitch and roll of the sensor in real-time and also updates a 3-D representation of the tracker body.

ISDemo_History:
This demo displays tracker orientation as well as the contents of the running 30-second orientation 'history' available through the TrackIR tool. For this to work properly, at least one attached TrackIR tracker must have orientation output available.

ISDemo_Callback:
This demo demonstrates how to assign a Matlab function to serve as the custom callback that executes in response to button presses on a connected TrackIR tracker. For this to work properly, at least one attached TrackIR tracker must have button output available.

In addition to these demos, the "TRACKIRTOOLINSTALLDIR\Demos" folder also contains various support functions used in the demos. The functions are commented and are self explanatory.