



StretchSense

A Sensor Holdings Limited Brand

Hand Engine 1.5.3 Release Notes

New version	Hand Engine 1.5.3
Previous version	Hand Engine 1.5.2
Deprecated versions	Hand Engine 1.5.1
Release date	May 4th 2022
Operating system	Windows 10, 64bit
Meaning of icons	+added, ^changed, !note, #fixed, -removed
Requirement	<p>**This functionality requires a glove firmware update v01.01.00 or higher and dongle firmware update 01.01.02 or higher. This update is included in Launcher firmware bundle version 1.5 or higher.</p> <p>New Firmware Update Process via Launcher (Beta)</p> <p>How to Update Your Mocap Pro Glove and USB Dongle Firmware via the StretchSense Launcher</p> <p>Legacy Firmware Update Process</p> <p>Glove Firmware Update Process</p> <p>Dongle Firmware Update Process</p>

1. Introduction

This document describes the new features, improvements and bug fixes included in software update 1.5.3 for Hand Engine

2. Minor Changes

+ Allow user to define trigger source (*Vicon*, *OptiTrack*, *Xsens*, or *Qualisys*) and therefore packet structure on incoming XML trigger message depending on which trigger source the user is triggering *Hand Engine* from

^ Changed Title for Preferences window from “*Application Settings*” to “*User Preferences*”

+ Added missing tooltips for interactive elements in “*User Preferences*” window

+ Notification message appears when *Take Name* is above 110 characters to warn users that recording will lead to a truncated *Take Name* folder for the local recording and on the SD card. Meta files for local recording will still contain the entire *Take Name* but MetaSD files on the SD card will truncate the *Take Name* to 110 characters

^ Removed *Take Name* string from Global Meta File. Global Meta file now just named GlobalMeta.json

3. Bug Fixes

Fix for *Motive* and *MVN* triggering. To fix an issue where remote trigger was not working for *OptiTrack Motive* and *Xsens MVN* in 1.5.2, UDP listener has been updated to differentiate *Motive*, *Vicon*, *Qualisys* and *Xsens* trigger events by getting user to define incoming source

Allow updating of trigger port without having to restart *Hand Engine*. User can now test that port has been updated by turning on and off remote trigger toggle.

Fix for SD Card recording when *Take Names* are greater than 32 characters. For successful recording to the SD card the maximum limit for *Take Names* has been increased from 32 to 110 characters

Added a flag to Batch Processing functionality to fix a previous known issue where batch processing to a Full Body FBX can lead to data being written for only one hand

! If using the *StretchSense WiFi Bridge* app to connect to *Hand Engine*, users will need to update the app to version 1.16 for SD card recording to work with the increased *Take Name* character limit

https://play.google.com/store/apps/details?id=com.stretchsense.smartapp&hl=pt_PT&gl=US

4. Known Issues

For *Hybrid Mode* to work a minimum of two poses need to have key selected. For best results, we recommend having at least three poses with key selected and that these three poses must be dissimilar or at opposite joint angles to each other, i.e. *Fist* and *Paddle L* or *Thumb Up* and *Paddle*. In situations where the desired result only requires one or two poses, you can effectively mute the extra poses you add by setting the confidence levels for those poses to zero.

On rare occasions the MetaSD file recorded for a take may have an empty MetaSD file (size of the file will be 0kb). This take will not be able to be batch processed and will provide the user with an error message during the batch process directing you to the problem file. If you wish to

Batch Process the remaining files it is recommended to remove the take folder with a 0kb MetaSD file from the list of takes being batch processed then restart the batch process. The problem take will still be able to be played in *Hand Engine* using the raw CSV file and *File Playback* functionality and then exported as an FBX manually by the user.

Performance issue with the pinky splay being overly sensitive when using *Express Calibration*.

Switching between *Express* and *Hybrid Mode* with only an *Express* pose trained in your profile may lead to thumb performance issues. We recommend capturing at least 3 extra poses if intending to use *Hybrid* with *Express Calibration* tuning.

Clicking the *Scan* button does not auto-assign a COMPORT. After clicking scan the user must first select the COMPORT they would like to use from the dropdown list then click the 'on' switch.

When manually exporting, recorded CSV files will use the *Take Name* set in *Hand Engine* rather than the *Take Name* used in the CSV file name.