VIVE

HTC VIVE SRanipal SDK Guide

Release version: 1.3.6.7

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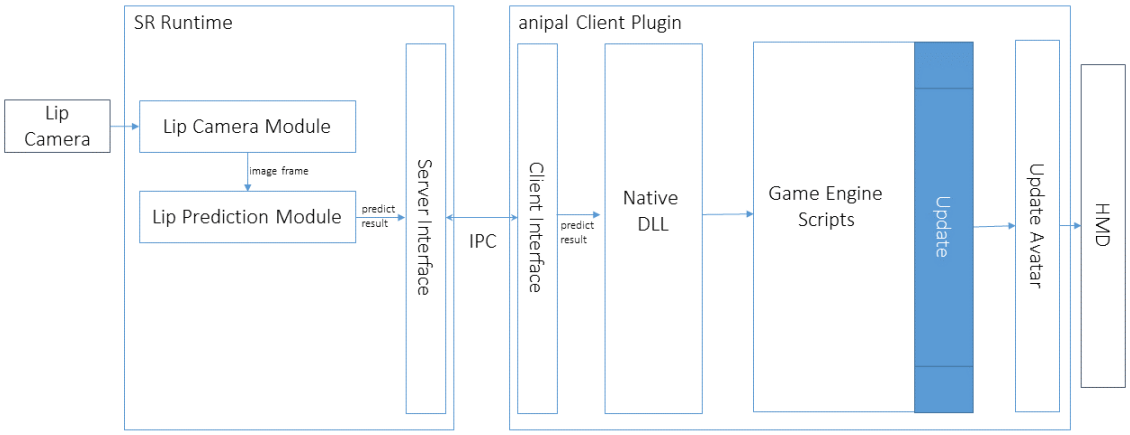
1. About the VIVE SRanipal SDK

The VIVE SRanipal SDK is developed to help software developers create a lip-aware application with actual facial expressions on make-believe 3D avatars. “anipal” stands for “animation pal.”



2. System requirements

To use VIVE SRanipal SDK plugin, the following minimum software and hardware requirements should be met:

Software requirements	• Windows 8.1 or later (64-bit) • Unity 2017.4.17 or later • SteamVR (October 14 release or later) • SR_Runtime 1.3.6.7 or later
Hardware requirements	• Vive HMD with Lip capability

Started from SR_Runtime 1.3.6.7, it is supported that using facial tracking on all-in-one headset such as VIVE Focus3 via VIVE Business Streaming. Refer to the link to install and setup VIVE Business Streaming for VIVE Focus3.

3. Limitations

- Support Windows 64-bit only

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4. SDK Folder Structure

SRanipal_version\

- SRanipal_SDK_Guide.pdf
- 01_C\
  - Document\Document_C.lnk (C API reference)
  - SRanipal\
    - SRanipal_Sample\
    - SRanipal_Sample.sln
- 02_Unity\
  - Document\
    - Getting Started with SRanipal in Unity.pdf
    - Document_Unity.lnk (SRanipal API reference)
  - Vive-SRanipal-Unity-Plugin.unitypackage
- 03_Unreal\
  - Document\
    - Getting Started with SRanipal in Unreal.pdf
    - Document_Unreal.lnk (SRanipal Unreal API reference)
  - Vive-SRanipal-Unreal-Plugin.zip

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5. How to Use SR_Runtime

5.1. Installing SR_Runtime

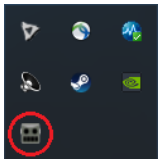
To enable eye tracking capability, you must download the VIVE Software from SteamVR or VIVE OOBE.

Follow the instructions to setup SR_Runtime.

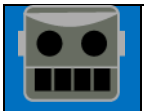
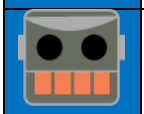
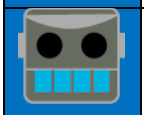
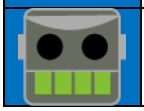
5.2. SR_Runtime Usage

After installing VIVE Software, follow the steps below.

1. Ensure your VIVE HMD is connected to your PC.
2. Launch VIVE Business Streaming from Windows > VIVE Business Streaming if you are using all-in-one headset such as VIVE Focus3. (Ignore this step if you are using Vive Pro or Vive Pro Eye)
3. Launch SR_Runtime from Windows > VIVE Software > VIVE SRAnipal and wait until the SRanipal status icon appears in the notification tray — see the image below.



The status icon reflects the status of your tracking devices:

	SR runtime is launched but HMD does not support lip tracking or your all-in-one headset is in sleep mode.
	The lip tracking device of Vive Pro or Vive Pro Eye is in idle mode.
	The all-in-one's lip tracking device is in idle mode.
	Lip tracking is active; i.e., a program is retrieving data from it.

4. Start **SteamVR** (if not running already)
5. Put on your HMD.
6. **Done**. You are ready to develop lip-aware applications.
7. If you want to quit SR_Runtime.exe, right-click on the status icon and click **Quit** to stop SR_Runtime.

5.3. Build C Sample Code

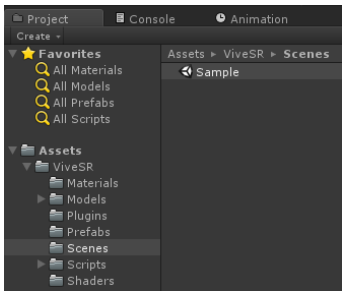
1. Open the solution file of the sample code at *$(SRANIPAL)\01_C\SRanipal\SRanipal_Sample.sln* with Visual Studio 2015.
2. For details about this API, refer to *$(SRANIPAL)\01_\C\Documnet_C.lnk*.

5.4. Build the Unity Plugin

1. Open unity and create a new **3D** project.
2. Select **Asset** > **Import Package** > **Custom Package**.
3. Select the Vive-SRanipal-Unity-Plugin.unitypackage
4. In the **Importing Package** dialog, ensure that all package options are selected and click on **Import**.
5. Accept any API upgrades if prompted.

- Opening a sample scene

1. In the Unity Project window, find the scene file Sample.unity in **Asset** > **ViveSR** > **Scenes**.



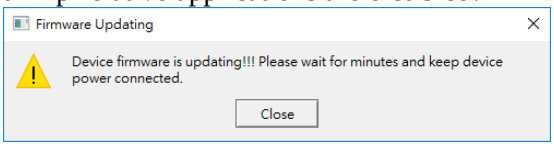
2. Ensure that all Requirements are met and then click **Play**.
3. For details about this sample, please refer to *$(SRANIPAL)\02_Unity\Plugin\Getting Started with SRanipal in Unity.docx*.
4. For details about this API, please refer to *$(SRANIPAL)\02_Unity\Document_Unity.lnk*.

5.5. Build Unity project via Unity OpenXR Facial tracking Plugin.

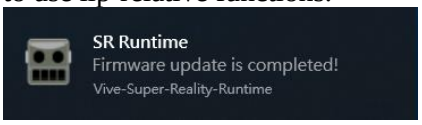
1. Please refer to the link to download OpenXR Plugin for Unity.
2. Here is an example using OpenXR Plugin to build facial tracking sample.

6. Known issues

- If your HMD requires a firmware update, the below window will pop up. During the process, all lip-relative applications are **disabled**.



After the firmware update, the below notification will show up. Reboot the SR_Runtime.exe to use lip-relative functions.



7. Frequently Asked Questions

- ***Why is my lip tracking is not working?***
  - Check if the installation steps listed in Section 5 have all successfully finished.
  - Check if SR_Runtime is running.
  - Check if the HMD is turned on and connected to the PC.
- ***How to update device firmware?***
  - SR_Runtime automatically checks/updates device firmware.
- ***How to update SR_Runtime?***
  - SR_Runtime automatically checks/updates new version from HTC server.

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