How to Run the 'Cloud User Manager' Demos

Prerequisites

1. This package uses Microsoft Cognitive Services for face detection and user recognition. These services are free of charge, if you don't exceed a certain limit (30000 requests per month, 20 per minute, as of now).
2. In order to use the Cognitive Services for face detection and user recognition, you need to subscribe for Face API. To get a subscription key, go to this page: https://www.microsoft.com/cognitive-services/en-us/face-api and press the big orange 'Get started for free'-button.
3. You will be requested to sign-in with your Microsoft account. This is the right moment to sign-up for Microsoft account, if you don't have one already.
4. Request subscription keys for 'Face – Preview' and 'Emotion – Preview' (as well as any other free previews that may interest you).
5. If you don't see the list of your current subscriptions yet, click on 'My Account'-link, located at the top right corner of the browser window.
6. In the list of subscriptions, find 'Face - Preview' and unhide one of its keys (it doesn't matter if primary or secondary one). The same way, unhide one of the 'Emotion - Preview' subscription keys, as well.
7. Create an empty Unity project and import this package into it.

Face & Emotion Detection Demo

1. Open Assets/CloudUserManager/DemoScenes/FaceDetectionDemo-scene.
2. Select the CloudFaceController-game object in Hierarchy. Then copy & paste the Face-Preview subscription key from Prerequisites-p.6 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component.
3. If you need emotion detection too, copy & paste the Emotion-Preview subscription key from Prerequisites-p.6 above to the 'Emotion Subscription Key'-setting of the CloudFaceManager-component. If you don't have this key, disable the 'Recognize emotions'-setting of the CloudFaceDetector-component.
4. You are all set up. Now run the scene.
5. The upper left part of the screen shows the output of your machine's web-camera. Click on the camera image, to make a shot for face & emotion analysis.
6. Alternatively, you can click on the lower left window, to select a jpeg-image for face & emotion analysis.
7. The selected picture or camera shot will be displayed on the lower left window, along with the detected faces on it. The detected faces will be outlined as colored rectangles.
8. More information about the detected faces and emotions will be displayed in the same color, on the right part of the screen. The information includes gender, age, smile- and emotional status for each detected face.

User Recognition Demo

1. Open 'File / Build Settings' and add UserRecognitionScene0 & UserRecognitionScene1 to 'Scenes in Build'.
2. Open Assets/CloudUserManager/DemoScenes/UserRecognitionScene0-scene.
3. Select the CloudFaceController-game object in Hierarchy. Then copy & paste the Face-Preview subscription key from Prerequisites-p.6 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component.

4. Emotion detection is not needed here, so you can leave the 'Emotion Subscription Key'-setting of the CloudFaceManager-component blank.
5. Look at CloudUserManager-component now. The 'User Group Id'-setting contains the group name that will be used for user recognition. This group will keep the users, their names, faces and data. By default it is 'demo-users', but you are free to change it, as to your preference. This way you can have several different groups of users for different games. The group will be created, if not found.
6. You are set up now. Run the scene.
7. The upper left part of the screen shows the output of your machine's web-camera. Click on the camera image, to make a shot for user recognition.
8. Alternatively, you can click on the lower left window, to select a jpeg-image for user recognition.
9. The selected picture or camera shot will be displayed on the lower left window, along with the detected faces on it. The detected faces will be outlined as colored rectangles.
10. The panel on the right part of the screen will show the recognized users, as well as not-recognized faces. The recognized users will be displayed along with their user names. To log-in (and go to the 2nd scene) select one of the recognized users.
11. If no users are recognized, you can add any of the not-recognized faces as new user. To do it, specify its user-name and press the respective 'Create User'-button.

Group Management App

1. Open Assets/CloudUserManager/GroupManager/CloudGroupManager-scene. This scene is not a demo, but rather back-office application for group & user management. Do mind, you will not see the user faces, because the face images cannot be downloaded from the cloud. You will see user names, IDs and face IDs.
2. Before you start, just like in the demo scenes, select the CloudFaceController-game object in Hierarchy. Then copy & paste the Face-Preview subscription key from Prerequisites-p.6 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component. Emotion detection is not needed, so you can leave the 'Emotion Subscription Key'-setting of CloudFaceManager-component blank.
3. Make sure that 'User Group Id'-setting of CloudUserManager-component contains the same group name you have used for user recognition, i.e. in the User-recognition demo above.
4. Now run the scene.
5. You will see the current list of users in the specified user group. You can refresh the list at any time by pressing the Refresh-button, in the lower right corner of the window.
6. Select any user in the list to see more information about it. You will see its user name, person ID and face ID.
7. You can change the user name, add or modify custom data for the user, or delete the user and all its data.

How to Include Face & Emotion Detection in Your Unity Project

1. Copy the Assets/CloudUserManager/CloudFaceScripts-folder from this package to the Assets-folder of your project.
2. Create an empty game object in your scene. Name it 'CloudFaceController'.
3. Add CloudFaceManager-script as component to the newly created CloudFaceController-object.
4. Copy & paste the Face-Preview subscription key from Prerequisites-p.6 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component.
5. If you need emotion detection too, copy & paste the Emotion-Preview subscription key from Prerequisites-p.6 above to the 'Emotion Subscription Key'-setting of the CloudFaceManager-component.
6. You can copy the CloudFaceDetector.cs-script from DemoScenes/Scripts-folder to a folder in your project and then use it as component in the scene. Don't forget to set all its settings.

7. You can also use the public API-functions of the CloudFaceManager-component in your scripts, just like the CloudFaceDetector.cs-script in the demo does. Use its source as an example.

How to Include User Recognition in Your Unity Project

1. Copy the Assets/CloudUserManager/CloudFaceScripts-folder from this package to the Assets-folder of your project.
2. Create an empty game object in your scene. Name it 'CloudFaceController'.
3. Add CloudFaceManager-script as component to the newly created CloudFaceController-object.
4. Copy & paste the Face-Preview subscription key from Prerequisites-p.6 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component.
5. Add CloudUserManager as component to the CloudFaceController-game object. Set its 'User Group Id'-setting to the name of the user group you'd like to use.
6. You can copy CloudUserRecognizer.cs-script from DemoScenes/Scripts-folder to a folder in your project and then use it as component in the scene. Don't forget to set all its settings.
7. Alternatively, you can use the public API-functions of the CloudUserManager-component in your scripts, just like the CloudUserRecognizer.cs-script in the demo does. Use its source as an example.

More Information, Support and Feedback

Web: https://rfilkov.com/2016/05/02/cloud-user-manager/
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