TransUnion

DA Lite - Web SDK Documentation

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TransUnion

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Document History

Version	Description	Prepared By	Date
1.0.1	Initial version	TU	Jan 30, 2024

Table of Contents

Annotation

Shoot: To take a photo or record a video by camera devices.

Reshoot: Restart a shooting process.

How to use dalite-sdk

Prevent bundling of certain imported packages and instead retrieve these external dependencies at runtime.

For example, to include daLite from a CDN instead of bundling it:

```
<script src="/main.[hash].js"></script>
<!doctype html>
<html lang="en">
   <head>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width,initial-scale=1">
      <meta content="width=device-width,initial-scale=1,maximum-scale=1,user-
scalable=0" name="viewport" />
<meta http-equiv="Cache-Control" content="max-age=7200" />
<meta http-equiv="Expires" content="Mon, 20 Jul 2013 23:00:00 GMT" /> <title>HKID
identify demo</title>
<style>

         :-webkit-direct-focus {
           border: 0 !important;
           outline: none !important;
}

</style>

      <link rel="shortcut icon" href="https://zh-hans.reactjs.org/favicon-
32x32.png?v=f4d46f030265b4c48a05c999b8d93791" />
      <script src="https://unpkg.com/vconsole@latest/dist/vconsole.min.js">
</script>
<script>
```



```
            var vConsole = new window.VConsole();
        </script>
        <link href="/css/index.css" rel="stylesheet">
    </head>
    <body>
        <div id="root"></div>
    </body>
  <script src="/main.2998b3d76267f7f2f41b.js"></script>
  <script>
    var sdk = new window.daLite({
      certiType:1,
      rectangleContainer: document.body
    })
    sdk.setup("../assets/dalite_sim_next.onnx").then((data) => {//  Client
downloads the models, videos and several necessary data
if (data.success) {
sdk.addListeners(daLite.type.RESULT, [function(message) {// subscribe to
the event
          console.log(message)
        }])
        sdk.start();//  start shooting
      }
})

  </script>
</html>
```


SDK document

1. Use dalte-sdk to create an object

// create object using DaSdk

```
var sdk = new window.daLite({
certiType:1,// required parameter, set the certificate type，1 means 2003version，2 means 2018version
rectangleContainer: document.body, // A rectangular box on the camera screen, to represent the identifiable area of the ID card.

})
sdk.setup("../assets/dalite_sim_next.onnx").then((data) => {
  if (data.success) {// setup success
    //  subscribe to event
    sdk.addListeners(daLite.type.RESULT, [function(message) {
      console.log(message)
    }])
    sdk.start();
  }
})
```


2. Possible problems

```
// src/index.ts
// During SDK installation,  "error" will appear if the SDK cannot be started
shooting due to a device problem, like camera error or not permitted. More
information about "error" is shown in MediaDevices.getUserMedia(). Reference
Link: https://developer.mozilla.org/en-US/docs/Web/API/MediaDevices/getUserMedia
  If error appears, you could show a prompt and skip the shooting mode to Plan
B.
  const { success, message, error } = await
sdk.setup("../assets/dalite_sim_next.onnx");
// error code

  if (!success) {
    if (error) {
      return message.error(`${error.constraint}, ${error.name},
${error.message}`)
}

    return message.error(message);
  }
  //  next follow is main code
```


3. Communicate with the SDK

```
interface IMesage {
  message?: string,
  preview?: string,
  image?: string,
  code?: string,
  id?:number,
  step?:number,
}

// Obtain the real-time recognition result by the SDK, which has two types of
prompt messages, as 'failed recognition' and 'passed recognition'.
sdk.addListeners(daLite.type.RESULT, (message: IMesage) => {})
// The SDK notifies the service code to enable the next step recognition, and the
business side can accordingly present the UI of the next step recognition.
sdk.addListeners(daLite.type.NEXTSTEP, (message: IMesage) => {})
```

SDK extends npm wolfy87-eventemitter， you can use `addListeners` to subscribe message and use `removeListeners` to remove event.

Enumeration of message can refer to [8. Reference of Message]

Notes:

- `EVENT_TYPE` indicates the event type defined by the SDK. It can be two types, `RESULT` and `NEXTSTEP` .

For EVENT_TYPE = RESULT ,

- When `message. Code = OK` , it means that the single step recognition is passed. At this time, preview (cut picture of the ID Card) and image (complete picture needs to be sent to the server) can be obtained.

Example :

message.preview (cut picture of the ID Card)

message.image (complete picture needs to be sent to the server)

- If `message.Code = LOOSE`，developer should be notified that ID card is lost. In this scenario, the developer needs to design a process logic.
- For example, you could display the prompt that 'ID Card is lost. Please take a new shoot' on the UI. Users can click the 'reshoot' button to trigger the sdk starting a new shoot case by sdk.start() .
- If message. Code shows neither OK nor LOOSE, it is in the right identification process. The SDK will give the developer a real-time prompt for messages of a specific indication, including the ID card is to far, too close, the ID card type is wrong, etc.

For `NEXTSTEP` event:

- The recognition process of an ID card can be divided into three steps: vertical_front, inclined_front and vertical_back.
- The main effect of this kind of event is to remind the developer to update the UI. For example, after the vertical front of the ID card complete being recognized, the developer will obtain the event `NEXTSTEP` , which means it can switch to the shooting process of inclined front of the ID card. The developer can change the UI interaction after obtaining this event.

4. Start the SDK to identify the ID Card

For better identification, `sdk.start()` must occur after a subscription.

```
sdk.start();
```


5. Switch between the cameras

Due to the large differences in smartphone models in circulation, some models have multiple cameras, such as Huawei, Samsung, etc. Therefore, after the SDK is started to identify devices, it should obtain devices information. The developer should give instructions/buttons on the UI to enable users to choose/change to a suitable camera device during recording.

```
//  If no erorr appears during sdk setup , it can obtain the camera device list)
as expected.
const devices = sdk.devices;
sdk.useMedia(devices[0].deviceId);
```

Notes:

- `devices` means an array of device cameras. Each item contains fields of 'label' and 'deviceId' .

6. SDK restart

Need to reshoot if the image is blurry

- The developer can use `sdk.start()` to initialize the parameters and start a reshoot.

```
sdk.start();
```

- Important: To ensure the service can 'reStart' successfully, previous `sdk.addListeners` should be cleared. Please ensure not to subscribe to the events repeatedly.

7. SDK Close

When you complete your photo flow, you can end shooting by `sdk.unmount()`

8. Reference of Message

Item	Traditional Chinese	English
NEEDOLD	請提供舊款智能身份證（2003年版）	Please scan your old HKID (2003 version)
NEEDNEW	請提供新款智能身份證（2018年版）	Please scan your new HKID (2018 version)
NEEDFACE	請拍攝身份證正面	Please scan the front of your HKID
NEEDROTATE	請傾斜拍攝身份證正面	Please scan the front of your HKID in a tilted position
NEEDBACK	請拍攝身份證背面	Please scan the back of your HKID
ERRORLINK	“certiType”數值錯誤	“certiType” value Error
LESS_ROTATE	傾斜度過小	Tilt angle is too small
MORE_ROTATE	傾斜度過大	Tilt angle is too large
FAR	證件過遠，請移近拍攝	Move your HKID closer to the camera
MOREA	請水平擺放證件	Place your HKID on a level surface
LIGHT	光線過強	Too bright
DARK	光線過暗	Too dark
ERRORCERTI	請提供香港身份證	Please provide your HKID
EXCEED_LEFT	請確保證件在相框內	Keep your HKID within the scan window
EXCEED_TOP	請確保證件在相框內	Keep your HKID within the scan window
EXCEED_RIGHT	請確保證件在相框內	Keep your HKID within the scan window
EXCEED_BOTTOM	請確保證件在相框內	Keep your HKID within the scan window
LOOSE	檢測不到證件	Unable to detect HKID
OK	拍攝成功	Image captured

