Contents

1 How To

This document explains the functionality offered by the iOS-application **Mr. Intenso**. This app requires you to have an iOS device of version 17.5 or greater. In order for you to enjoy and fiddle around with all the functionalities, the app requires access to the camera, camera roll, microphone, calendar (write-only) and location.

In the following section we have stated five different scenarios in which the app can be used. These scenarios should guide you through the usage of the app and all it's functionalities. Please work yourself through the scenarios and afterwards fill in our survey. Thank you for taking part in our survey!

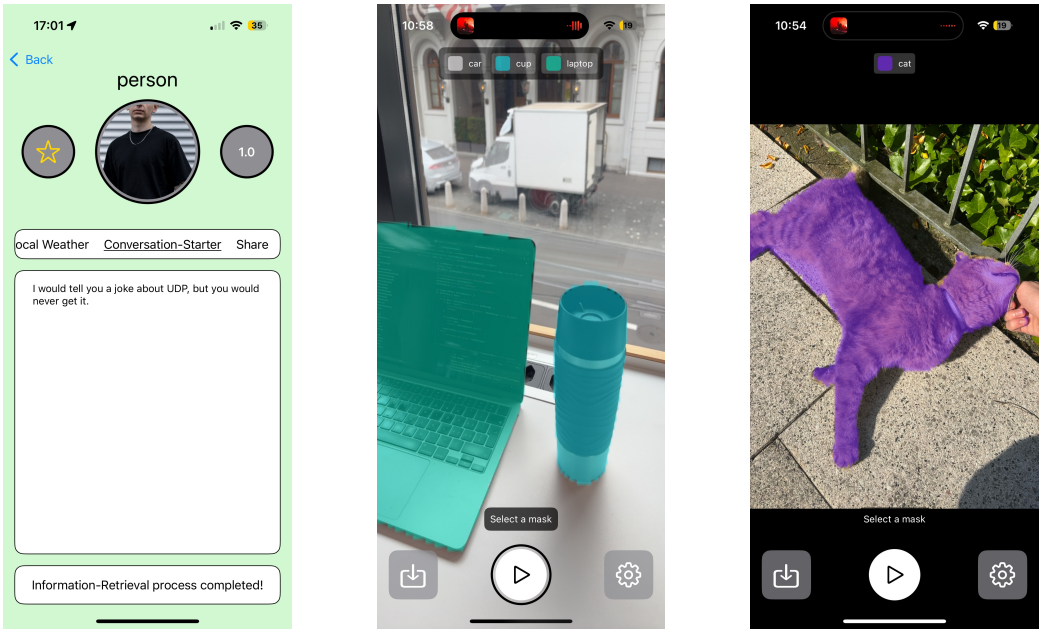

Figure 1: Some impressions of using Mr. Intenso.

2 Scenarios

In this section, we would like to guide you as an user through some tasks which will hopefully give you the ability to use the app as it was intended.

2.1 Task 1: Visual-Search

This task will give you an example on how powerful image-based searches can be. In order to go ahead, make sure you have turned on `GoogleLens-Search` in the settings. Furthermore, we found the results to be better if we change the language to german.

1. Take a picture of your laptop and click on the mask.
2. Go to the **Visual** section. It contains the results which match the given input image.
3. Look for an entry which has a price displayed and click on it. This will open your browser showing the given item. By doing that, you have added the item to your **Shopping-Basket**.
4. Navigate to the menu **Shopping-Basket**. By pressing the "plus" you will be shown some additional information. This menu contains all products of this type you have selected so far. You can delete entries by clicking the trashcan icon.
5. Click the yellow star to persistently save the object.

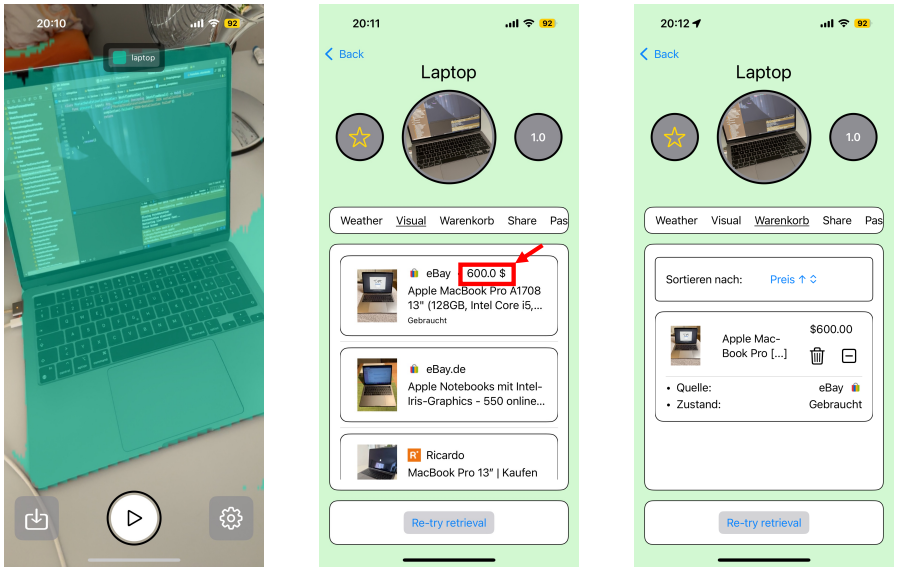

Figure 2: Order of instructions for visual-search.

2.2 Task 2: Sharing

For this section you will be needing to socialize. For any object you are scanning, you have the possibility to share the result with friends. Some things, such as your saved products or your already scanned objects will not be shared.

1. After having scanned an object, or with the object from task 1, you can navigate to the **Share** section. This will show you a QR-Code.
2. Let a friend scan it using the built-in QR-Code scanning functionality. Keep in mind, that this functionality is strictly built for this use-case and can not be used to scan random codes.
3. Now your friend should see the content you were able to extract before. Shared objects are marked red in contrast to ones which the user initiated himself, which are yellow.

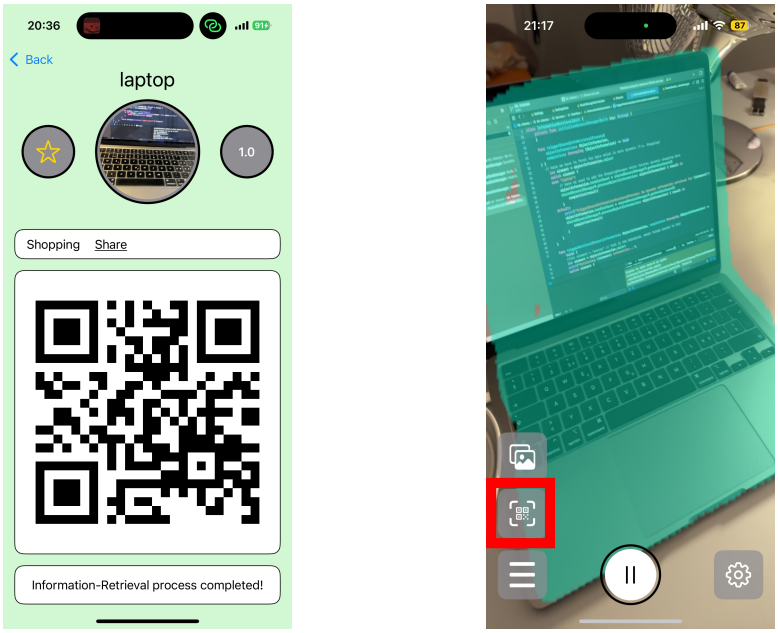

Figure 3: Order of instructions for sharing.

2.3 Task 3: Past Objects

After having completed the previous task, you can now navigate back to the video-feed by pressing **Back**. Every object you scan in a session is being saved, at least momentarily, and can be viewed at a later time.

1. Take another picture of your laptop and trigger the information retrieval process.
2. Go to **Past Objects**. This section displays a map which includes all the locations you have performed a search on for the current type of object.
3. For further information about this object, please refer to 3.1.

2.4 Task 4: Poster

One of the objects we have focused during development of the app were posters. Usually, there is lots of information contained on a poster, which the viewer could be interested in. The information-retrieval process for posters tries to fetch data about `location`, `time` or potential `QR-codes`.

1. Find a poster which has an address, QR-code or some sort of time-indicator on it. (We have used a poster which can be found in the DMI)
2. Scan the poster and select its mask.
3. Select the `Location` description. This object is being created, if it was able to successfully extract an address out of the text contained in the poster. It gives the possibility to enter street-view, by pressing the red marked symbol.
4. Lastly, select the `Calendar`-object. If a date has been located on the poster, it will suggest a event to you. You can modify and save it to your phone's calendar. More information to the object can be found here 3.4.

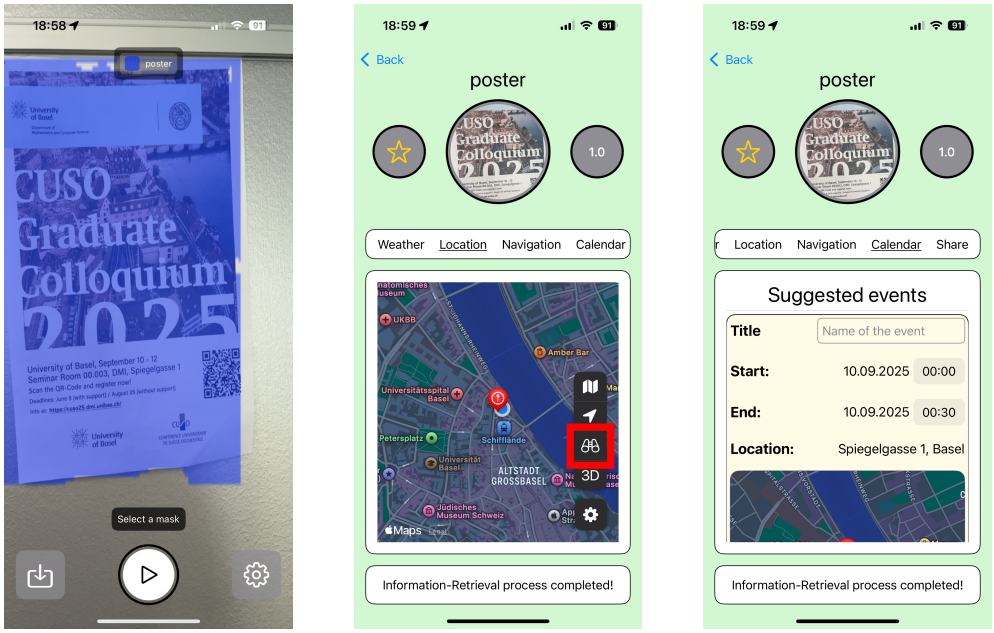

Figure 4: Order of instructions for poster.

2.5 Task 5: Bird

For the final task we would like to introduce you to the last object we have given more attention. In addition to that, you will also get familiar with another feature, which allows you to run the inference on images from your camera roll.

1. Search for a image of a bird on google and save it to your camera roll. (f.e. `passer domesticus`)
2. Go back to **Mr. Intenso**'s videofeed.
3. Select the burger-menu and press the red marked symbol.
4. Select the previously saved image of the bird.
5. Click on the mask to run the inference.
6. The description `Occurrences` is described here: 3.11.

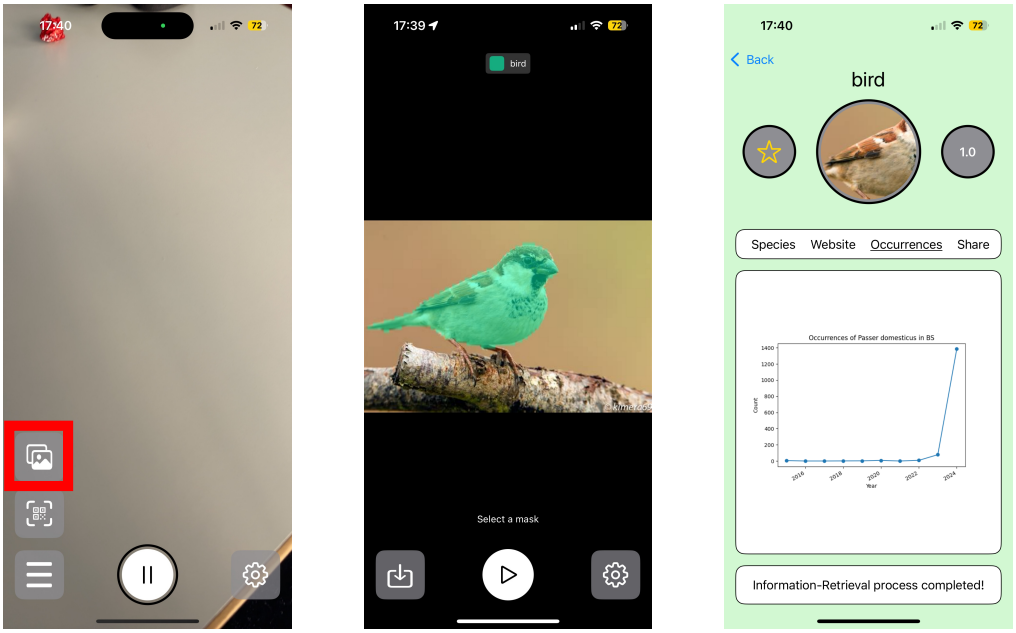

Figure 5: Order of instructions for birds.

2.6 Wrap-Up

We hope that these scenarios gave you a good insight on what **Mr. Intenso** has to offer. In the following section we are explaining every possible description one can see during the usage. Feel free to further play around with the app. You might want to try and scan a person, if the person is okay with it.

3 Descriptions

In this part, we are going to cover all the possible kinds of descriptions you might see while using the information retrieval process on objects. Beware, that this section is probably more interesting if you have already gained some experience using the app or have at least done the scenarios.

3.1 Past Objects

In this menu we are displaying all previously scanned objects of the same type as the current one. Here you can see why it is beneficiary to allow access to your location while performing information retrieval queries. The annotations on the map contain a number which tell the user how many objects have been found there. Additionally, the colors of the marks have following meanings:

- Blue: All the objects are not saved persistently.
- Red: At least one of the contained objects have been shared to you.
- Yellow: At least one of the contained objects has been saved to persistent memory.
- Orange: It contains at least of persistently saved object as well as one shared.

By clicking on a marker, you will be seeing the selection of objects which have been found there. Selecting one of them will forward you to the view showing once again the results of this query.

3.2 Location

This kind of object always come together with a `Navigation`-description (see 3.3). This object can be generated when performing the information-retrieval process on a poster with a clearly visible address. The `location`-object's purpose, is to pinpoint a location, which has been found on the poster. It allows basic modification on the appearance of the map, such as changing map-type or entering 3D-mode. Furthermore, if the location supports it, you can even enter `Street-View`, which basically lets you virtually visit the location.

3.3 Navigation

The objective of this description is to show the user a path to the location which was retrieved on the scanned poster. It can either display the walking route if you intend on going there on foot, or the path you had to take by car. It even allows entering proper navigation, by pressing `Start Navigation` in the top of the description.

3.4 Calendar

This instance allows the user to add events to their phone's calendar. If a date has been found inside the text of the poster, it will suggested the event as long as it is in the future. In order to save it, you have to at least specify the title for it. Alongside that, you can add a description and even a location. Independent of wether an event has been retrieved or not, you can add an event my manually filling the details into the subsection `Create an Event`. After having added an event, it will be shown under `Saved Events`.

Keep in mind, that the app only has write-access, if authorized by you, to your calendar. This means, that the deletion of an event inside the app will not cause the event to be deleted in the calendar. Furthermore, sharing this object will show all saved and suggested events of the sharing user as suggested events to the user it has been shared to.

3.5 Music

During each information retrieval process, the app is listening for potential music. If a song has been identified, it will be shown.

3.6 Shopping-Basket

This object will be added to all objects, which are buy-able online. It displays all items you have added to it of the same type of object. This allows you to compare different items with each other, and potentially snipe a good deal!

The items which are listed inside the shopping basket are persistently stored up until you decide to delete them by pressing the trash-can.

3.7 Visual

In this object you will be presented similar results based on the selected mask's image. Sometimes you will see `Related Content`, which simply opens the browser searching for the new parameter. However, all other results actual results based on the input. Some of them might even contain information about price, condition or user ratings. These items can be clicked at, which will result in viewing them in your browser and add it to the shopping basket of the current object type.

Important Remark: This visual-search uses SerpAPI, which is a third-party API provider, which in turn simulates the google-lens searches. In order for this to work, we needed a public accessible URL to the image we want to run the visual search on. As we did not want to upload the images on third-party hosting services we decided to do it myself. Every time you perform such a search, the image will be uploaded to my server, such that google can access it. The image is cached for further 15minutes, but will be deleted afterwards.

3.8 Weather

The weather is part of the information which is shown at any time. The data comes from Apple and their third parties. It contains the current state, potentially the minute-wise forecast for the coming hour, the 24-h forecast as well as a long-term forecast. If you scan a poster and this yields a location-object (3.2), you will get an additional weather-object containing the forecast of that location.

3.9 QR-Code

This object simply shows the content contained in the QR-Code which has been retrieved from the scanned poster.

3.10 Website

This object displays a website relevant to the object you have scanned.

3.11 Occurrences

While this description might be not that easy to come by, it should show how many things are actually possible with the amount of public data basically laying around. It contains a plot of the occurrences of the scanned bird inside your location's canton or, if not data is available, it will show the stats for entire Switzerland.

3.12 Conversation-Starter

The aim of this description is to cause amusement for the user. It shows the user a joke, if a person has been scanned as an object. These jokes are even modifiable. The jokes are bound to the current user's language setting. Please beware, that some jokes are terribly bad. Moreover, there are three kinds of jokes:

- Chuck Norris (If the language is english, then you will be shown Chuck Norris jokes about programming)
- neutral (Mostly programming humor)
- all (Kind of a mix of everything)