DeepSight Toolkit Visualizer Guide

v2.0

GETTING STARTED

The Toolkit Visualiser allows you to view aggregated data generated by DeepSight Toolkit.

IMPORTANT: Before you start, please make sure that both **DeepSight Toolkit** and the **Toolkit Visualiser** are **installed** and that you have a **valid license for DeepSight Toolkit**.

STEP 1: Run DeepSight Toolkit on your machine

STEP 2: Go to Output tab and make sure that:

1. Location Label is filled in (this allows you to recognize the source of the output in the Toolkit Visualiser later);

2. Enable Pull, and **Enable Push** checkboxes are ticked and matching the Visualizer settings. The ports for Pull and Push must be different, otherwise a warning will display in the Visualizer.

Toolkit Output Tab

3. Once the *Raw data -> Enable Pull* check box and the *Aggregated data -> Enable push* check boxes are ticked, we just need to **make sure that the settings in the Visualizer match the settings in the Toolkit**:

Visualizer settings menu

Toolkit Output Tab

Settings

Pull raw data URL

1. Enter URL from Toolkit Output tab under "Raw data -> Enable pull".
By default will be http://localhost:8080/JSON
or use the internal IP (e.g. http://192.168.1.40:8080/JSON)

8080

2. Make sure the port matches the port number in the Toolkit

Push aggregated data port

1. Set the port number:

8081

2. Copy & paste this URL http://localhost:8081 or http://192.168.118.1:8081 into the Toolkit Output tab under "Aggregated data -> Enable Push".

CLOSE

General Settings | Input | Input Settings | Output | Licensing |

Location Label | location_label

Raw data

☑ Enable Pull   Access JSON at http://localhost: 8080   /JSON

☑ Enable Push   http://localhost:8081

☑ Save to CSV   C:/CSV_raw

Aggregated data

☑ Enable Pull   Access JSON at http://localhost: 8080   /JSONAGGR

☑ Enable Push   http://localhost:8081

☑ Save to CSV   C:/CSV_aggregated

The Visualizer uses the *'Raw data -> Enable Pull'* feature to check the connection status in real time, while the actual data displayed is provided via the *'Enable Push'* feature of the Toolkit.

STEP 3: Press the **play button** in the Toolkit to start processing the video input.

STEP 4: **Run** Toolkit Visualizer. It will start plotting the data it receives from DeepSight Toolkit as soon as the first batch is pushed. If the Toolkit is not running or any of the settings are incorrect, the connection status will be displayed in red, and a warning indicating what settings need to be amended will pop-up in the top right hand side corner of the Visualizer window. The Visualizer will update with the frequency selected in the Toolkit.

Congratulations!
You have successfully setup the
Toolkit Visualizer

Keep reading to learn more about the Visualizer's features

SECTION EXPLANATION

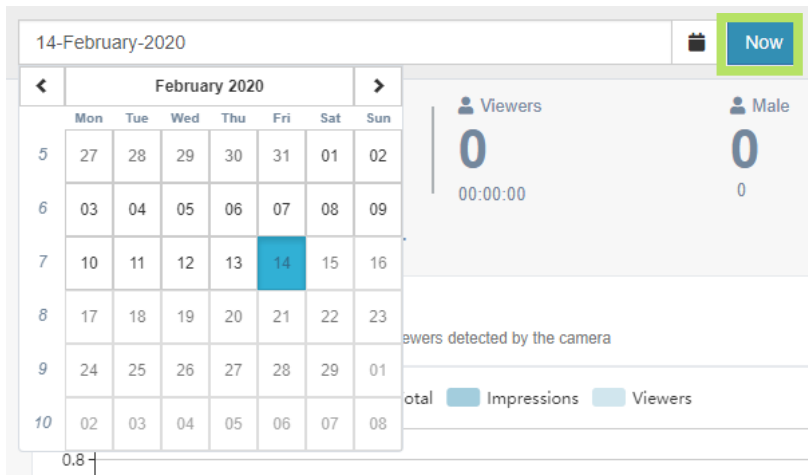Here is a brief explanation of the various sections of the Toolkit Visualiser.

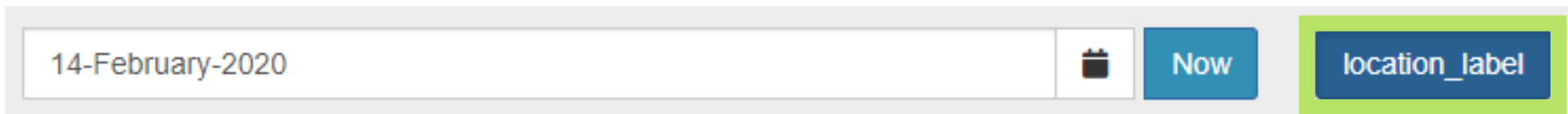**Summary**
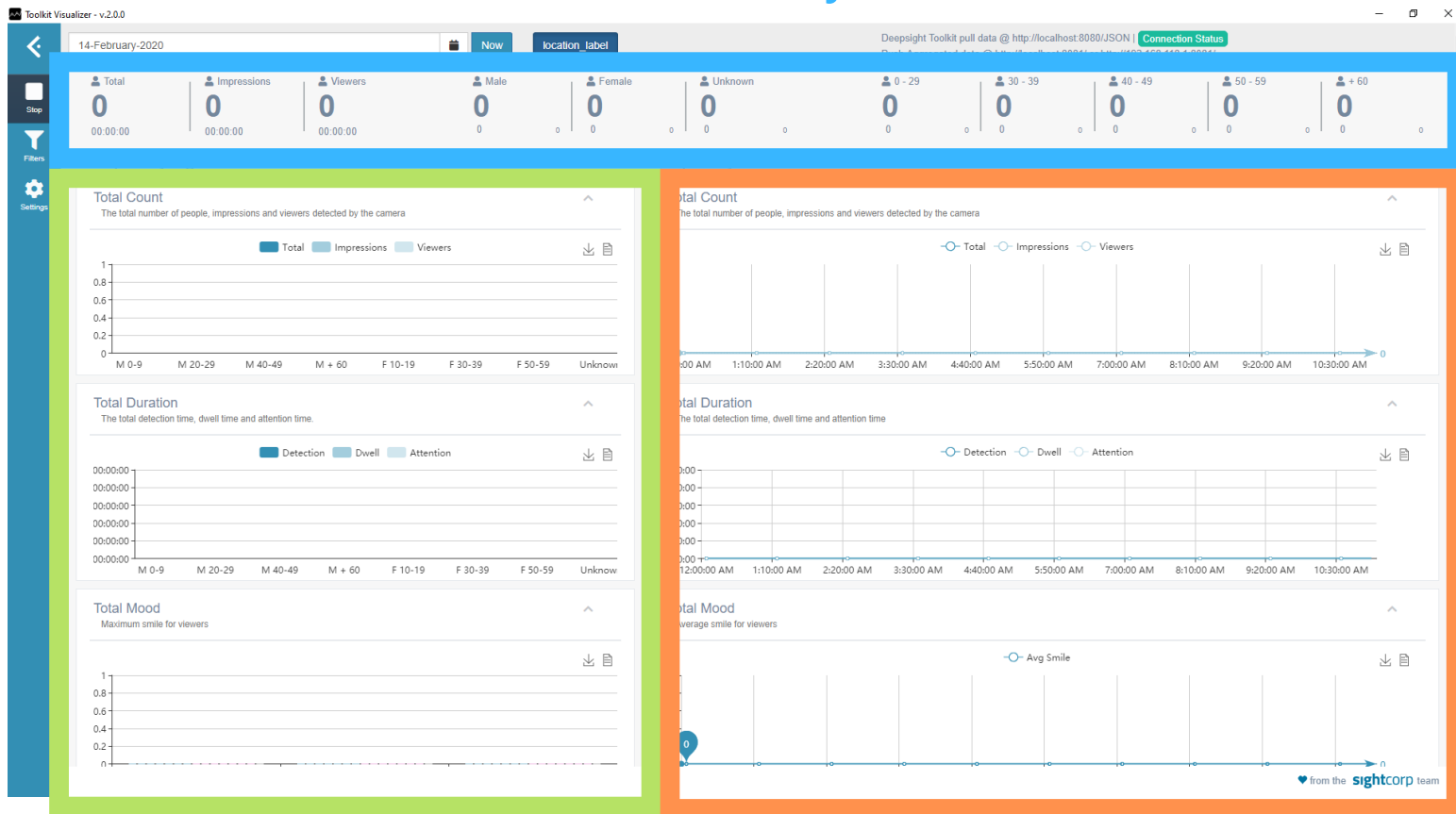
Graphs by
Age & Gender

Graphs by
Time

1. The date selection box on the top allows you to select the date for which you want to see the report. Click on the **Now** button to see today's data up to the current time.


- If you are looking at a day in the past, the x-axis will show the full 24 hour period.

- If you are looking at data for today, the x-axis will show data up to the current time and as the time passes by, it will shrink to accommodate more data.
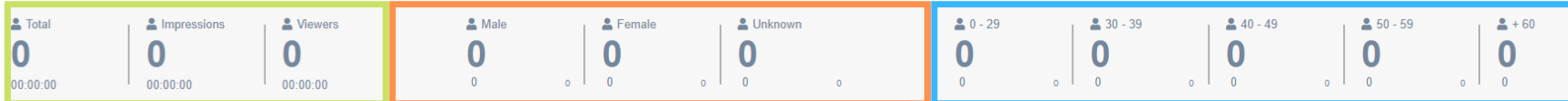
2. The location button shows you the name of the location you entered in the **Location Label** box within the Toolkit's Output Tab.

If more than one location label is set in the day, it will show the different location labels and the ability to show the corresponding data of each one:

| 17-February-2020 | 📅 | Now | 620 | 621 | location_label | sightcorp_office |
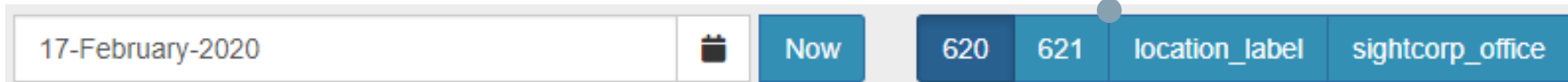
3. The summary area shows you the traffic summary for the currently selected date.

| 👤 Total	👤 Impressions	👤 Viewers	👤 Male	👤 Female	👤 Unknown	👤 0 - 29	👤 30 - 39	👤 40 - 49	👤 50 - 59	👤 + 60
0	0	0	0	0	0	0	0	0	0	0
00:00:00	00:00:00	00:00:00	0	0	0	0	0	0	0	0

- The left section shows the **total number of faces detected** and the number of Views which stands for the number of faces looking towards the camera, as well as the number of Impressions.
- The middle section shows the **number of people and their estimated gender**. If the Toolkit is unable to reliably determine the gender for someone, the person will be filed under unknown.
- The right section shows the **number of people that fall into different age categories**.

4. The graph **Total count (by age and gender)** shows the distribution of males and females across different age categories. To make this even more useful, the age and gender groups are further broken down into 'Total', 'Impressions', and 'Viewers' by color coding. Hovering the mouse over a specific bar within the chart will display its exact value.

5. The **Total count (by time)** graph shows a total count number, impressions, and viewers, over a 24 hour period in 10-minute increments:
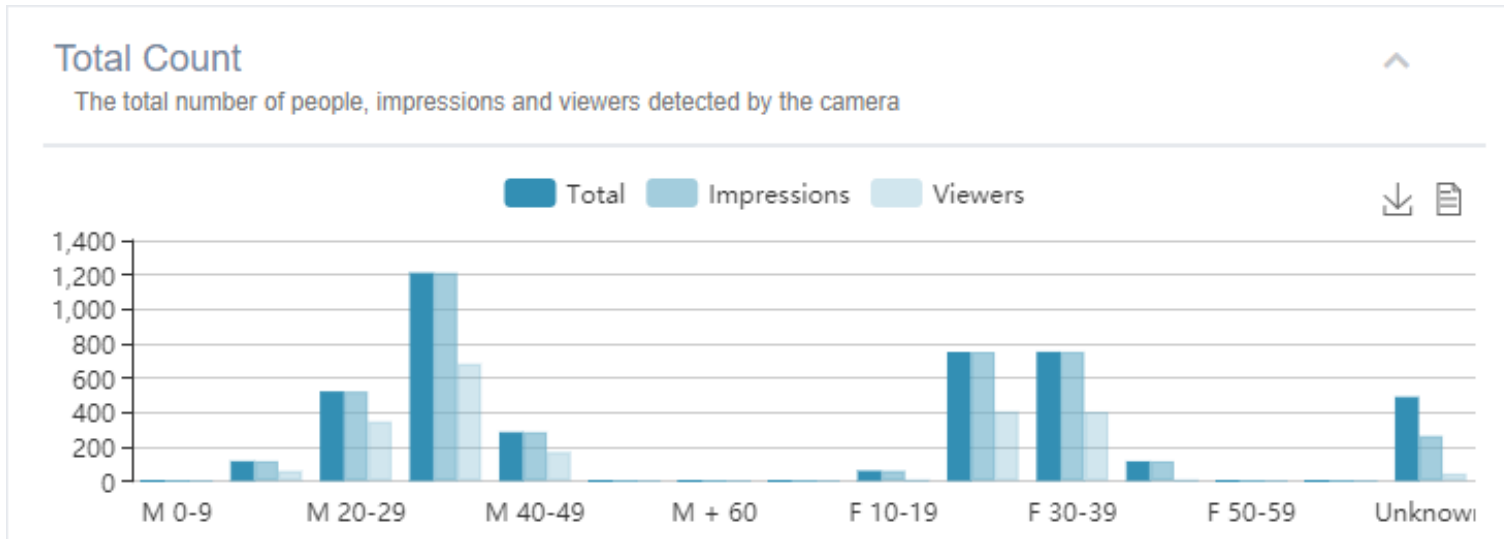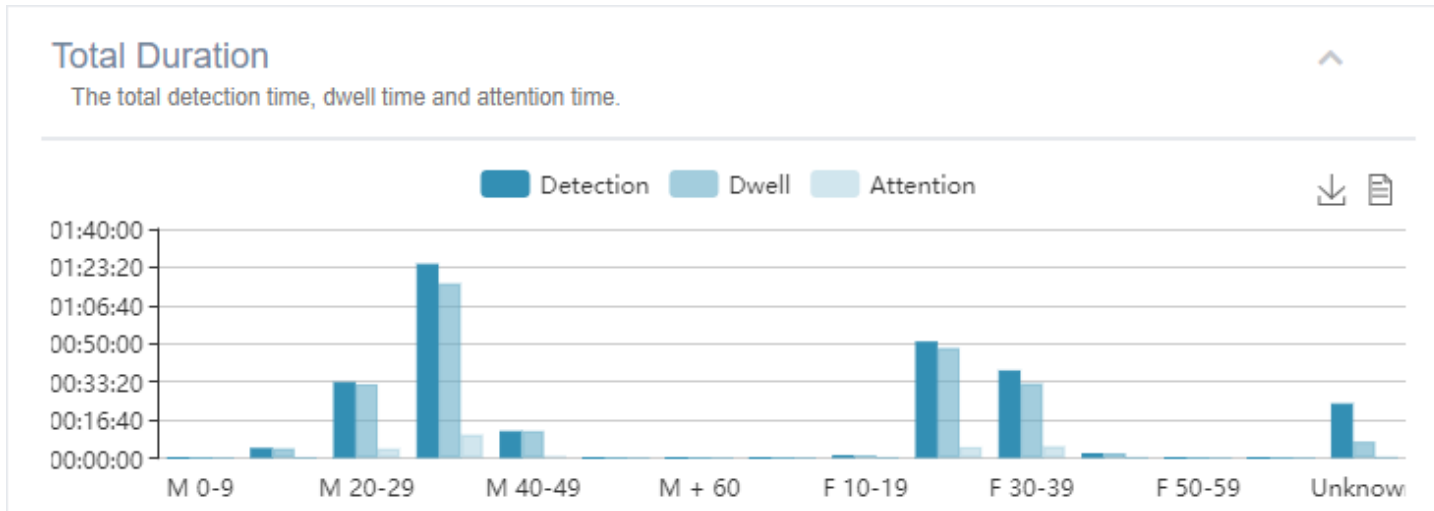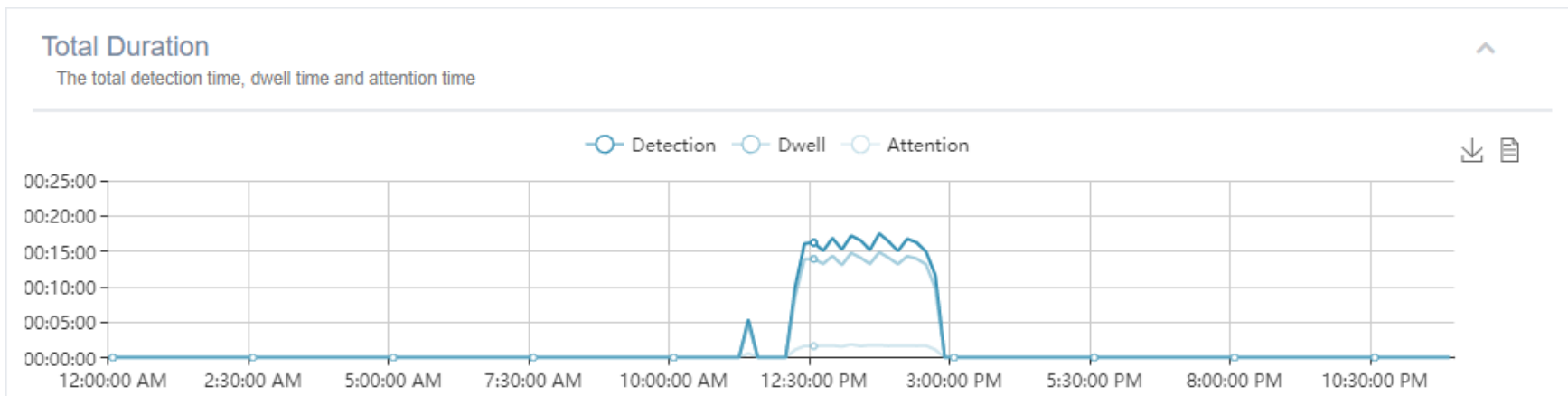

Count by age & gender
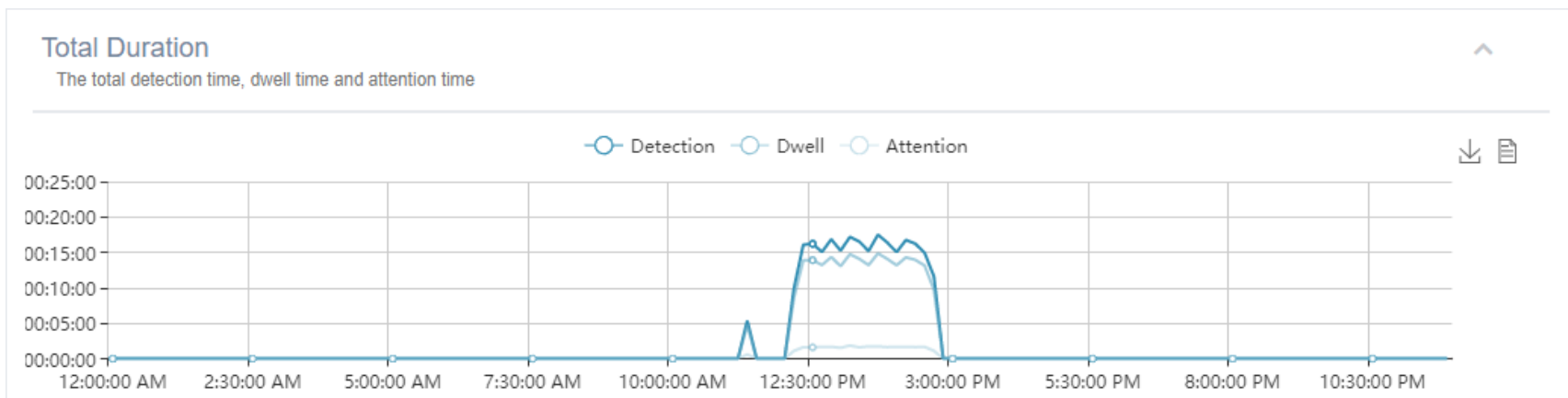
- The dark blue lines show the **total number of people detected at a specific time;**
- **Impressions** and **Viewers** are shown in lighter shades of blue**.**

6. New for this Visualizer version we have added a section dedicated to Digital Signage which shows the **detection time, dwell time,** and **attention time** both by age & gender as well as over time. **Dwell time** is the time spent by a person being detected as an 'impression':

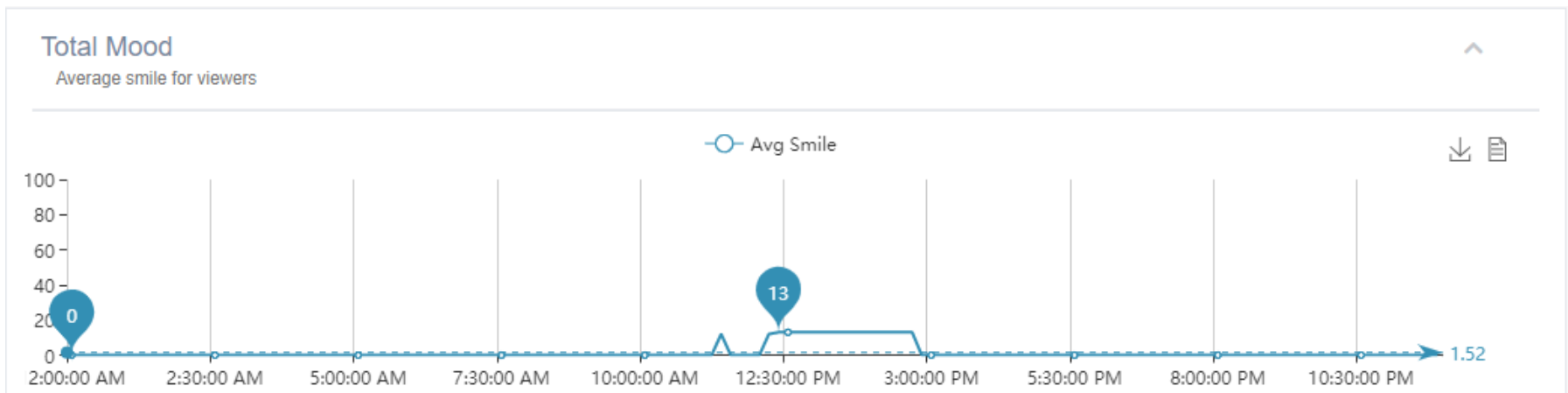*Detection time, dwell time, and attention time by age & gender*

Detection time, dwell time, and attention time over a timeline

7. The **Customer Satisfaction** section shows the average mood (scale from 0 to 100) by age & gender as well as over time. The three categories shown are 'neutral', 'happy', and 'very happy'.
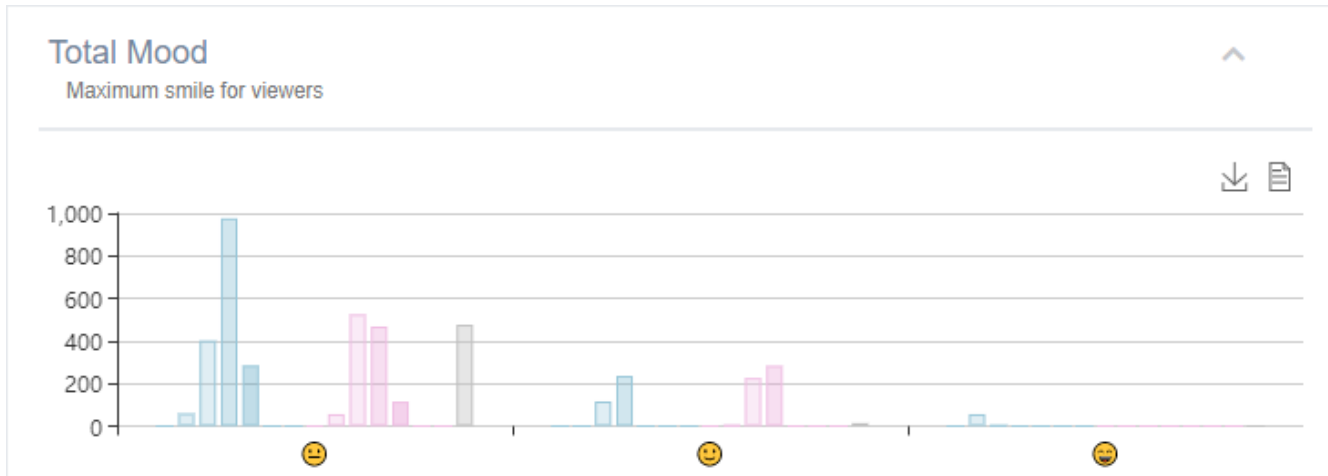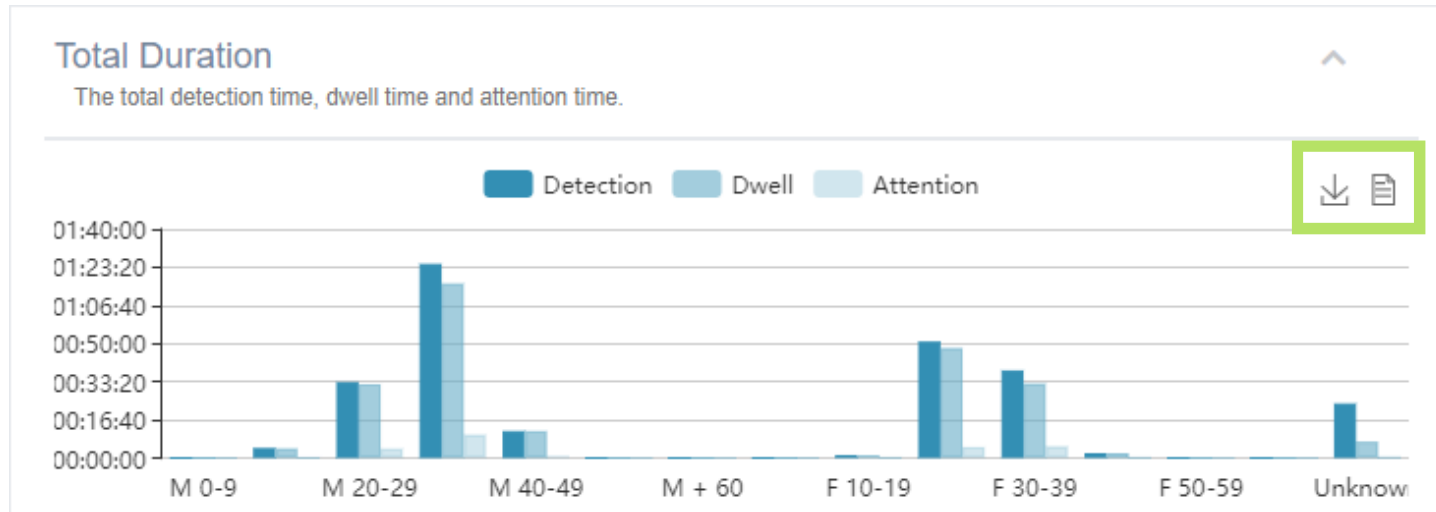

Mood by age & gender

Mood over time

8. The two **icons on the right** side allow you to **download** the current data in the form of an image, or just view the data that gets pushed from the Toolkit.
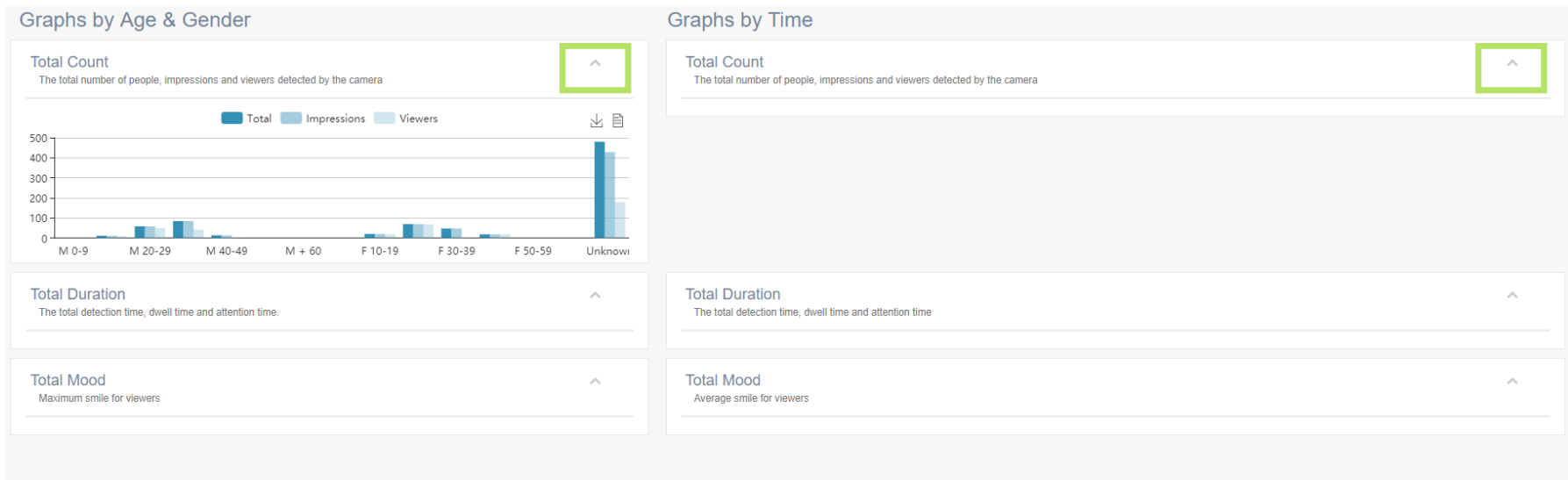

Here is an example of what the data looks like when the 'View data' button is clicked:

9. The small up arrow in the top right corner of each graph allows you to hide or expand any particular graphs that get in your way. In the example below we have hidden all the graphs except for Total count by age & gender:

10. To **filter** by age or gender categories across all graphs you can click the 'Filters' icon on the left hand side of the Visualizer. Here we have filtered out the outlying (below 20, above 50) age groups for the male audience:

FAQ

Q: "I have started Toolkit Visualiser but nothing is being plotted."

A: If you see a notification in the top right corner, go to the **Toolkit** and make sure the port numbers set up in the 'Output' tab match the settings in the Visualizer:

Visualizer settings menu

Toolkit Output Tab

The Visualizer uses the '**Enable Pull**' feature from the 'Raw data' Toolkit section to constantly check the **connection status**.

Data that is **displayed** in the Visualizer is being **pushed** by the Toolkit **in aggregated form**. This is why the Visualizer will only update every 30 seconds, 1 minute, 5 minutes, 10 minutes, or when 'Stop' is pressed in the Toolkit, and not in real time as it used to.