TrafficSwipe

Public transportation navigation redefined

Architecture

- API Interface (replaceable API)
- Data Object factory

API Integration

```
/**
 * Creates a new api dao for a specific api provider
 * @param apiProvider api provider
 * @return new api dao
 */
public static Entrypoint createTransportApiDao(ApiProvider apiProvider, RequestQueue queue){
    switch (apiProvider) {
        case VVO:
            Log.d(TAG, "createTransportApiDao: " + apiProvider.toString());
            return new VvoEntrypoint(queue);
    return null;
```

App can easily be expanded to other transport regions.

Data object factory

- API needs to implement an interface
- Interface provides factory methods

```
/**
 * Queries stations by name.
 *
 * @param name name to query
 * @return future throwing exception if an error occurs
 */
CompletableFuture<List<Station>> getStops(String name);
```

Context & Adaptation



GPS

Show stops nearby



Powersaving mode

• Disable GPS



Offline

• Use offline data

Powersaving mode enabled

GPS locating only after confirmation

Where do you want to **start**?

Stops nearby

Powersaving mode is turned on. Tab to enable GPS.

Context

Android power saving mode is enabled (usually in quick settings)

Adaptation

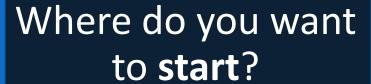
User needs to confirm to use gps when showing stops nearby.

Reason:

getting the gps location needs power which the typically wants so save while he is in power saving mode

GPS located

Show stops nearby



Stops nearby (tap to continue)

NUP: Nürnberger Platz

3, 8, 63

WPS: Walpurgisstraße

3, 7, 8, 9,

HBN: Hauptbahnhof Nord

3, 7, 8, 9,

+

Sample non DVB stop

261, 360

Context

User tapped on showing stops nearby and his position was located

Adaptation
Stops nearby are shown

Reason

The user maybe don't know the names of the stops nearby

Network slow or offline

Show offline results



Context

Device has no internet connection or network is to slow to load data in time.

Adaptation

User gets offline results while online results are sill loading

Reason

Getting offline results is better than getting no results, even if they might be out of date.



TrafficSwipe

github.com/nadeldrucker/TrafficSwipe

