

Description of collected Autolib database

DDI_Autolib description

I.1 SOURCE AND LICENSE

Data was extracted from opendataparis.com, where the Autolib availability information was available in real-time. The accessed database was the following:

- Name: Stations Autolib: Disponibilité en temps réel
- Producer : Autolib
- Date : see below
- License : Open Database License

Any further publication should include this mention and respect the terms of the Open Database License.

I.2 COLLECTED DATA

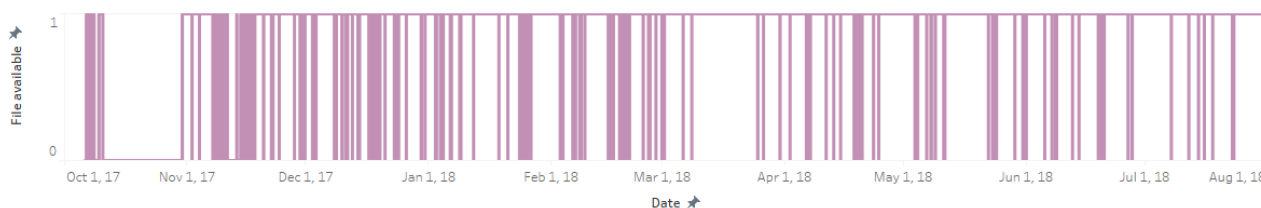
This sample contains data from April 1 to April 9, 2018.

Overall, Dalberg Data Insights had collected data at the following times:

- First pilot: every 5 minutes from October 6, 2017, 11:13 AM to October 8, 2017, 10:21 AM
- Second Pilot: every minute from October 9, 2017, 15:53 PM to October 10, 2017, 15:31PM
- Production: every minute from October 30, 16:59 PM to July 31, 2018, 23:59 PM (date of the end of the Autolib services, although our automatic downloads went on after that).

During the collection periods, on some occasions the download failed, which created some gaps in the data. These gaps are represented on Figure 1. Except for an important gap from November 11 to November 14, 2017, missing files were rare.

Timeline of available vs missing data



Number of missing files per month

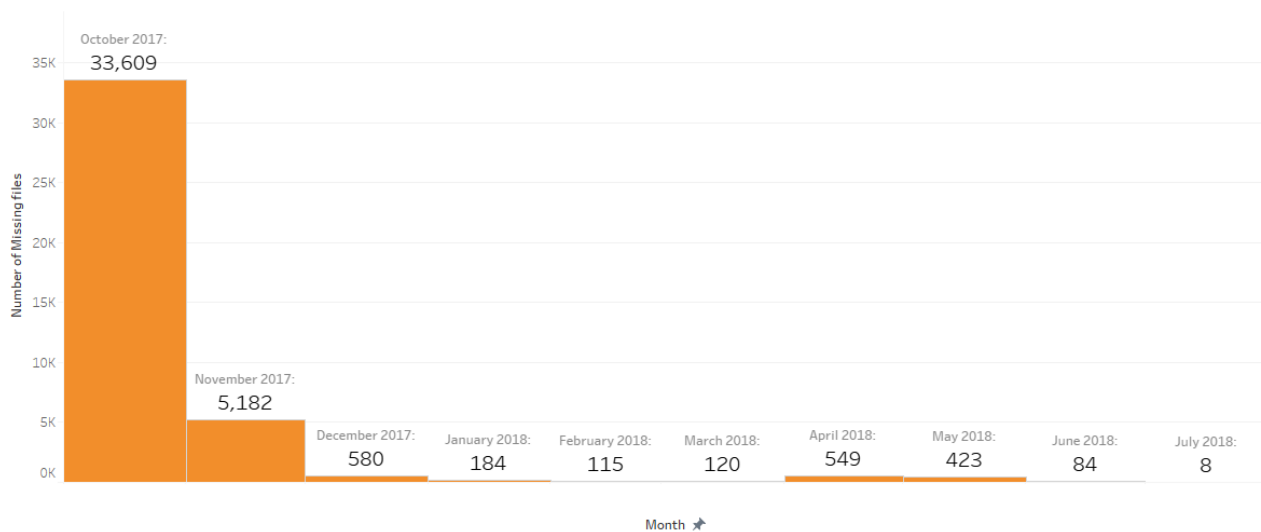
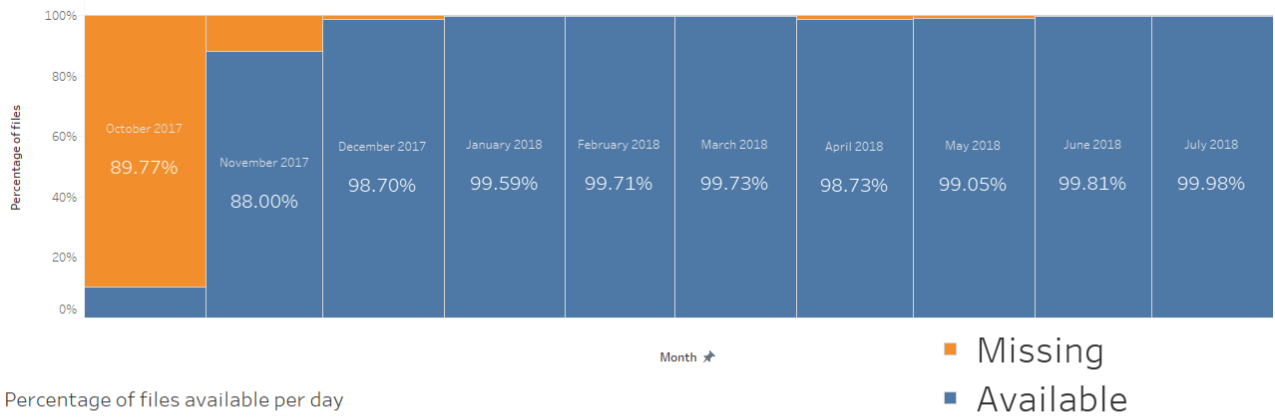


Figure 1: Autolib files availability over time

Percentage of files available per month



Percentage of files available per day

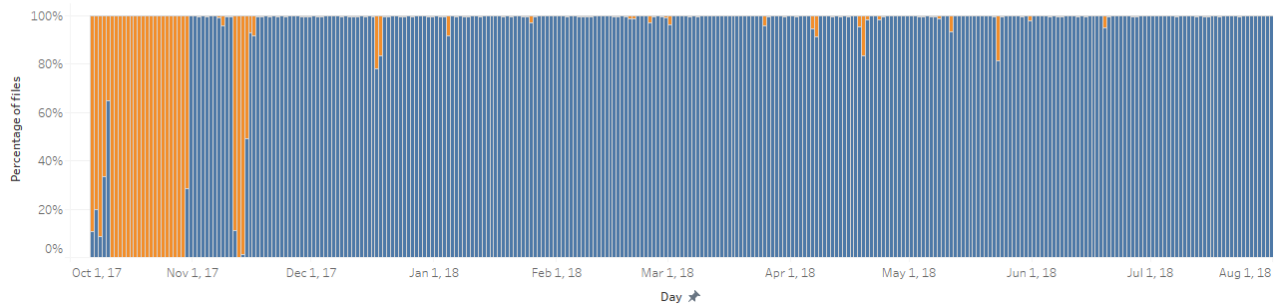


Figure 2: Percentage of available/missing files per month and per day

I.3 FIELDS

The data contains the following fields:

- Address
- Cars
- Bluecar counter
- Utilib counter
- Utilib 1.4 counter
- Charge Slots
- Charging Status
- City
- Displayed comment
- ID
- Kind
- Geo point
- Postal code
- Public name
- Rental status
- Scheduled at
- Slots
- Station type
- Status
- Subscription status
- Year
- Month

- Day
- Hour
- minute

No official description of the field was published together with the data.

From discussions during the Citymakers project, web and data exploration, Dalberg Data Insights has built the following understanding of the different fields. These descriptions are the best of Dalberg Data Insights's knowledge, but are provided without any guarantee (orange background indicate what we call "resources"):

Column name	Type	Values	Comments
Address	String		address of the station
Cars	Number	[0-7]	Number of cars available at the station - redundant with Bluecar counter, always the same value
Bluecar counter	Number	[0-7]	Number of Bluecars available at the station
Utilib counter	Number	[0-4]	Number of Utilibs available at the station
Utilib 1.4 counter	Number	[0-5]	Number of Utilib 1.4 available at the station
Charge Slots	Number	[0-3]	Number of Charging slots available at the station
Charging Status	String	{"nonexistent", "operational", "broken", "future", some typos}	Whether the station is operational for recharging. Mainly "nonexistent", "operational" or "broken": charge slots can only be greater than 0 when "operational"; slots and vehicles can be available in all situations (except future stations that have 0 resources)
City	String		City
Displayed comment	String		Some comments like "station within parking, access through ..."
ID	String		ID of the station
Kind	String	{"STATION", "SPACE", "PARKING", "CENTER"}	"CENTER" have no resources at all; "PARKING" do not have charge slots, but can have bluecars and utilib; "STATION" and "SPACE" can have all resources
Geo point	String		GPS coordinates of the station
Postal code	Number		Postal code of the station
Public name	String		Name of the station
Rental status	String	{"nonexistent", "operational", "broken", "future", a few empty}	Whether the station is available for renting vehicles. Resources are only available when "operational", except for "broken" which can have Slots, but none of the other resources (Bluecars, utilib or charging slots).
Scheduled at	String	datetime	Planned opening date: non empty values only for stations that have "future" in one of the statuses.
Slots	Number	[0-7]	Number of parking slots available at the station?
Station type	String	{"station", "full_station", "subs_center"}	No resources available for "subs_center" - which is just one location. Was that actually a selling point for Autolib subscriptions?
Status	String	{"ok", "closed", "scheduled"}	No resources available for "scheduled", which is the status if there is a "scheduled at" date. Yet there can be resources associated with "closed" stations
Subscription status	String	{"nonexistent", "operational", "broken", "future"}	Whether it is possible to subscribe to the autolib service in that station? No resources available when "future", but other values can have resources

For information, the attached Excel sheets also includes the number of occurrences in each category over a large period of time (November 2017 to June 2018):



Autolib_dataset.xlsx