

TTAP

Traffic & Transportation Analysis Probing

User Manual for Crash Data Analysts

Ask a question of your state's crash data as one readable sentence - down to the vehicle and the person
- and get the answer as a table, a chart, or the list of crashes behind the number.

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Bad Marine LLC

Contents

1. Welcome to TTAP

What the name means, what it does, how it fits with your state's system, who can do what, a question start to finish

2. Getting around

Signing in, the top bar, the Query Studio at a glance, conventions used everywhere

3. Building a query

The sentence, crash filters, picking values, named conditions, boxes for vehicles and people, and / or, what gets counted, Group by, asking in your own words

4. Reading the results

The results bar, Table, Chart, Records, opening a report, checking a crash case, exporting

5. Data sets and comparing them

The four data sets, Compare, What changed

6. Saving and sharing queries

Starter queries, My queries, Shared queries

7. What TTAP tells you about gaps

Stale data, missing sources, new fields, test data

8. TTAP admin

Fields, Named conditions and Time of day, Ask rules, Data, Access, Audit log

9. Quick reference

Labels, messages, glossary

1. Welcome to TTAP

1.1 What the name means

TTAP stands for **Traffic & Transportation Analysis Probing**. It is the place where a state's crash data analysts ask questions of the crash data and get answers they can check.

1.2 What TTAP does

TTAP turns a question into one readable sentence that you build on screen, for example:

Example: Count **Crashes** from **Officer reports** in **Finished reports** where **Crash Severity = 01 - Fatal Injury (K)** and has a **Vehicle** with **Hit and Run = 01 - Yes**, grouped by **Day of week**.

From that one sentence TTAP gives you:

- a **count** - of crashes, of vehicles, or of people;
- a **table** and a **chart** of the count broken down the way you choose;
- the **records** behind any number - one row per crash, vehicle or person - and the whole report for any row you click;
- a **comparison** of data sets: which crashes are in which, and which fields changed between them;
- a **CSV file** of the counts or of the records.

You never write code. You pick fields and values from lists, and the values always show their meaning next to their code.

1.3 How it fits with your state's crash system

TTAP works alongside your state's crash intake system (the Refinery). The state system is the system of record: it receives the reports, and its reviewers work them. TTAP keeps its own copy of the crash data for answering questions, and refreshes that copy from the state system on a schedule your administrator sets (every 15 minutes unless changed).

- TTAP **only reads**. Nothing you do in TTAP changes a crash report.
- TTAP's copy is **never the source of truth**. If it is ever in doubt, an administrator can throw it away and pull every report again (section 8.4).
- Names, addresses, plates and the narrative **are not sent to TTAP**, so they cannot appear in a result.

Note: Every result says how fresh the data is: look for **data as of** in the results bar. If the state system could not be reached on the last refresh, TTAP says so on screen and answers from the last good copy (section 7).

1.4 Who can do what

Your administrator gives each role one or more TTAP permissions. Any mix works.

Permission	What it opens
TTAP	The TTAP screen itself - the Query Studio.

Permission	What it opens
TtapOfficerReports	Officer reports as a choice in the query sentence.
TtapDriverReports	Driver reports as a choice in the query sentence (only if your state has driver reports).
TtapAllUserActivity	Reviewer and workflow numbers for everyone; without it a person sees only their own.
ManageTtap	The Admin pages (section 8).

Officer reports are the usual choice. Whether driver reports exist at all comes from your state's setup; where they do, a person sees them only if their role allows it, and any result that includes them is marked **Includes driver reports**.

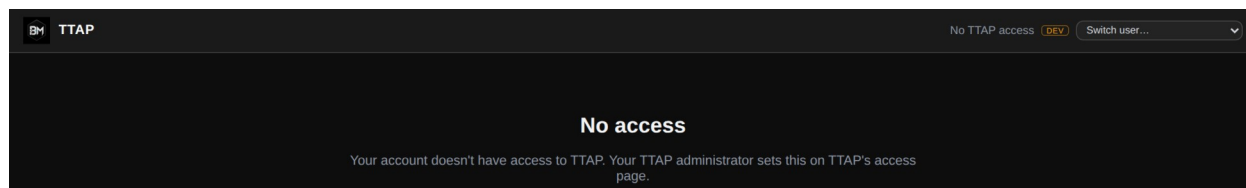
1.5 A question, start to finish

1. Open TTAP. The **Query Studio** appears, with an empty query.
2. Read the sentence at the top and set it: what to **Count**, **from** which report type, **in** which data set, between which crash dates.
3. Add **filters** on the crash, and **boxes** for a vehicle, a driver, an occupant or a non-motorist that must be in the crash.
4. Choose a **Group by** if you want the count broken down.
5. Press **Run query**.
6. Read the **Table** or the **Chart**. Click any count to see the **Records** behind it, and click a record to read the whole report.
7. **Save query** if you will ask it again, and **Export** a CSV if you need the numbers elsewhere.

2. Getting around

2.1 Signing in and the top bar

TTAP uses your state's sign-in - on a live system, your own state account; you never enter a separate password. If your account has no TTAP permission you will see **No access** in place of the screen: "Your account doesn't have access to TTAP. Your TTAP administrator sets this on TTAP's access page."



What a person without TTAP access sees

The top bar is on every screen:



The top bar for an analyst

- **TTAP** (with the logo) and **Query** - both take you to the Query Studio, your home page. Hover over the name to see what TTAP stands for.
- **Admin** - only appears for people with ManageTtap (section 8).
- On the right: who you are signed in as.



The top bar for an administrator - Admin appears

Test systems: On a test system you'll see a small DEV tag and a Switch user list next to your name. It stands in for the state's sign-in so testers can try each role. A live system signs you in with your state account and has neither.

2.2 The Query Studio at a glance

Query Studio Simulator

Count **Crashes** from **Officer reports** in **Finished reports** mm/dd/yyyy - mm/dd/yyyy

Crash + Add filter

+ Vehicle + Driver + Occupant + Non-motorist

Group by **Day of week** then **Time of day** Clear Save query

Run query

102 Crashes returned · data as of Oct 3, 6:31 PM Table Chart Records Export counts CSV

Day of week	Time of day	Crashes
Monday	Night	1
Monday	Day	12
Tuesday	Night	11
Tuesday	Day	14
Wednesday	Night	4
Wednesday	Day	11
Thursday	Night	2
Thursday	Day	10
Friday	Night	1
Friday	Day	10
Saturday	Night	2
Saturday	Day	11
Sunday	Night	3
Sunday	Day	10
Total (each crash once)		102

The Query Studio: query library on the left, the query on top, results below

- **Left - the query library.** Starter queries, your own saved queries, and queries others have shared. Click one to load it and run it (section 6).
- **Top right - the query.** The sentence, the filters and boxes, Group by, and the Clear, Save query and Run query buttons (section 3).
- **Bottom right - the results.** The count, then Table, Chart and Records (section 4).

Each part scrolls on its own, so the query stays in view while you read a long result.

2.3 Conventions used everywhere

- **[?] help tips** - instructions live behind the small ? buttons. Hover over (or tab to) one to read it. The ? beside **Query Studio** is a short manual of its own.
- **Codes are always shown with their meaning**, like 01 - Fatal Injury (K). You never have to remember what a bare number means.

- **Changing the query does not change the results on screen.** They stay as they were until you press Run query. (Clicking a query in the library is the exception: it loads and runs at once.)
- **Blue numbers are links.** A count in a table opens the records behind it.
- **Colored bars are notices.** Amber means the answer is partial; red means the data may be out of date (section 7).
- **A dash (-) in a cell** means the report has nothing recorded there.

3. Building a query

A query reads top to bottom as one sentence. You can build it in any order, and change any part later.

3.1 The sentence

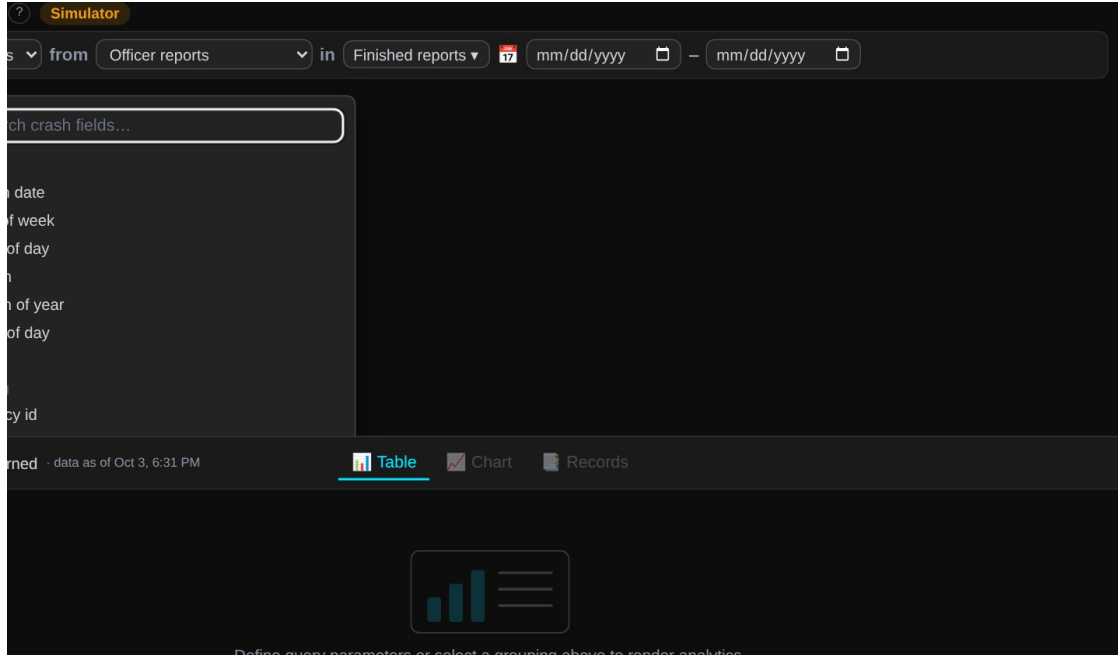
Count **Crashes** from **Officer reports** in **Finished reports** mm/dd/yyyy - mm/dd/yyyy

The top line of every query

Part	What you choose
Count	Crashes, Vehicles or People - what the number is a number of (section 3.7).
from	The report type: Officer reports , and where your state has them and your role allows, Driver reports or Officer and driver reports . If you have only one choice it is shown as plain text.
in	The data set to search - Finished reports unless you change it. Tick two or more to compare them (section 5).
Dates	The first and last crash date to include. Leave both empty for every date.

3.2 Crash filters

The **Crash** line holds conditions about the crash itself: when, where, severity, weather and so on. Press **+ Add filter** to add one.



+ Add filter: search for a field, or pick it from the list

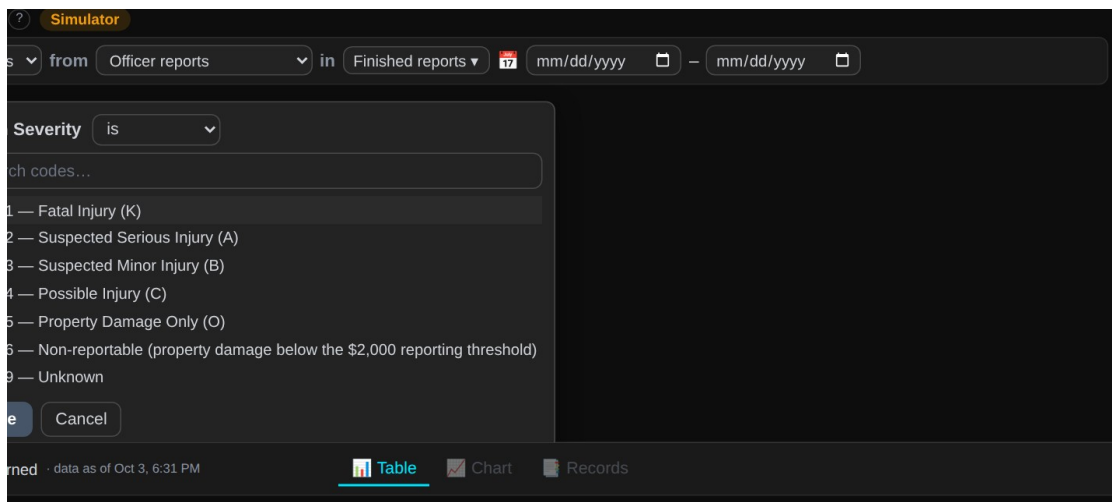
1. Press **+ Add filter**. A list of fields opens, grouped: **When** (TTAP's own date and time fields), then the crash fields your administrator offers.
2. Type a few letters in **Search crash fields** to narrow the list, and click the field.

3. Choose how it must match and pick the values (section 3.3).
4. Press **Done**. The filter appears as a chip on the Crash line.

Every filter on the Crash line must be true. To change one, click its chip; to remove it, click its **x**.

The When fields: **Crash date**, **Year**, **Month**, **Month of year**, **Day of week**, **Hour of day** and **Time of day** are worked out by TTAP from each crash's date and time. **Day of week** is always the calendar day: a crash at 01:30 on a Wednesday is a Wednesday crash, even if your Time of day bands call that hour Night.

3.3 Picking values



A coded field: tick one or more values - each shows its code and its meaning

What you see depends on the kind of field:

Kind of field	How it can match	How you give the values
Coded (a code list)	is, is not, between, is blank, has a value	Tick the values. Search codes narrows a long list. Values no longer in use are greyed and listed last.
Text	is, is not, contains, is blank, has a value	Tick from the values found in the data (each shows how many reports have it), or type one and press Add .
Number or date	=, not =, <, <=, >, >=, between, is blank, has a value	Type the number or pick the date; between takes two.
Yes / No	is, is blank, has a value	Tick Yes, No or both.

- Ticking **several values** means any one of them will do.
- **is blank** finds reports with nothing recorded in the field; **has a value** finds the rest.

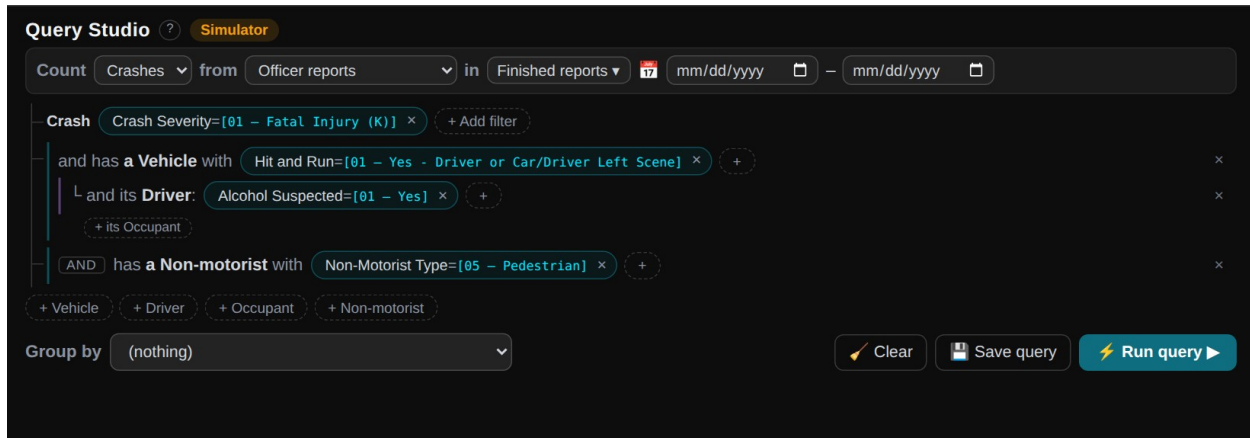
3.4 Named conditions

A **named condition** is a term your agency has defined once - for example "Alcohol-impaired driver" - so that everyone means the same thing by it. Named conditions appear at the top of the field list, in their

own group, and you pick one like a field. Hover over one to read what it stands for. Administrators create them (section 8.2).

3.5 Boxes: vehicles, drivers, occupants, non-motorists

To ask about the vehicles or people in a crash, add a **box**. The buttons under the query - **+ Vehicle**, **+ Driver**, **+ Occupant**, **+ Non-motorist** (the parts your state's reports have) - each add one.

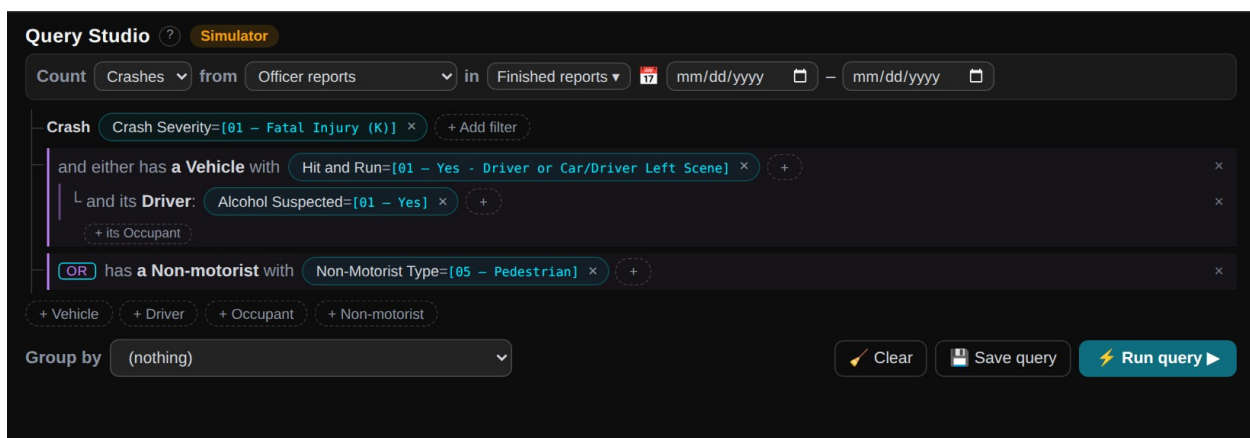


A crash filter, a Vehicle box with its Driver, and a Non-motorist box

- A box reads "and has a Vehicle with ...". Press the + inside the box to add conditions to it.
- **Every condition in one box must be true of the same vehicle (or person).** A Vehicle box with "Hit and Run = Yes" and "Body type = Pickup" finds crashes where one vehicle is both.
- **Separate boxes may match different vehicles.** Two Vehicle boxes find crashes with one vehicle matching the first and one - possibly another - matching the second.
- **+ its Driver, + its Occupant** add a box inside a Vehicle box: that same vehicle's driver or occupant.
- An **empty box** still counts: it reads **(any vehicle)** and requires the crash to have one.
- The **x** at the right of a box removes it.

3.6 And / or between boxes

Boxes are all required unless you say otherwise. Click the **and** in front of a box to turn it into **or**: then either that box or the one above will do. Click again to turn it back.



The same query with OR: a hit-and-run vehicle with a driver suspected of alcohol, or a pedestrian

Example: To count the people killed in crashes, count **People** with an **Occupant** box "Injury Status = fatal" or a **Non-motorist** box "Injury Status = fatal". Boxes joined by **or** are counted together.

3.7 What gets counted

- **Count Crashes** - each crash that meets the query is counted once, however many vehicles or people in it match.
- **Count Vehicles** or **Count People** - the box whose vehicles or people are being counted is marked **counted**. With no such box, every vehicle (or person) in a matching crash is counted.
- In the crash world a **fatal** is counted at the crash level and a **fatality** at the person level. Count **Crashes** for fatal crashes; count **People** for fatalities.

3.8 Group by

Group by breaks the count down - by month, by day of week, by severity, by any field you are offered. Choose a second field under **then** to break each group down again. Leave it at **(nothing)** for a single total.

3.9 Clear, Save, Run

- **Run query** - runs the query as it now reads. If something is missing or does not make sense, a red bar under the buttons says what, and nothing runs.
- **Clear** - empties the query and starts again.
- **Save query** - see section 6.

3.10 Asking in your own words - the Ask box

Where your state has set it up, a box at the top of the Query Studio lets you type a question the way you would say it, for example "fatal crashes on wet roads in 2022 by county". Press **Fill in** (or Enter) and TTAP fills in the query below for you.

1. Type your question and press **Fill in**. While it works, a line says so - on a computer without a graphics card this can take a minute or two.
2. TTAP fills in the sentence, the filters, the boxes and Group by, and clears any old results so they can't be mistaken for the new question's.
3. **Read every part of the sentence.** A line above it says what TTAP used and anything it left out.
4. Fix anything that is wrong, exactly as if you had built it yourself.
5. Press **Run query**. The Ask box never runs anything on its own.
 - The words your agency uses are written down as **Ask rules** by your administrator (section 8.3) - for example that a **fatal** is counted at the crash level and a **fatality** at the person level. The line above the sentence names the rules that were used.
 - **Years** are taken straight from your question. A span ("2020 to 2022") becomes a between.
 - Anything the question doesn't mention - a time, a day, a number - is left out, and the line says so.
 - If the question isn't about crash data, or asks for something TTAP doesn't have, you get "Couldn't turn that into a query" and the reason, and nothing is filled in.

- Your question itself is not kept anywhere. The audit log records that you used the Ask box and the query it filled in.

No Ask box? It appears only when your state's crash system has its local AI model running. Without it, everything else works as usual.

4. Reading the results

4.1 The results bar

12

Crashes returned · data as of Oct 3, 6:31 PM

Table

Chart

Records

Export records CSV

12 matching · click a row to open the report

Crash	Date	Vehicle count: Hit and Run, Alcohol Suspected	Non-motorist count: Non-Motorist Type	Vehicle count	Driver count	Occ
SIMB00012	2026-04-21 22:15	0	1	1	1	2
SIMB00011	2026-04-14 22:00	0	1	2	2	4
SIMB00009	2026-04-07 23:50	0	1	1	1	2
SIMB00007	2026-03-31 20:10	0	1	1	1	2
SIM000089	2026-03-30 11:23	0	1	2	2	3
SIMB00005	2026-03-24 23:05	0	1	1	1	2
SIMB00006	2026-03-24 21:00	0	1	1	1	2
SIMB00002	2026-03-17 01:30	0	1	1	1	2
SIMB00004	2026-03-11 22:40	0	1	1	1	2
SIMB00013	2026-03-11 01:30	0	1	1	1	2
SIMB00001	2026-03-10 22:40	0	1	1	1	2
SIMB00003	2026-03-10 14:15	0	1	1	1	2

A query with no Group by: one total, and how to break it down

- **The number** - how many crashes, vehicles or people the query found.
- **data as of** - when TTAP's copy of the data was last refreshed.
- **Includes driver reports** - appears when the result includes them.
- **Table, Chart, Records** - three ways to look at the same result.
- **Export** - on the right (section 4.6).

4.2 Table

102

Crashes returned · data as of Oct 3, 6:31 PM

Table

Chart

Records

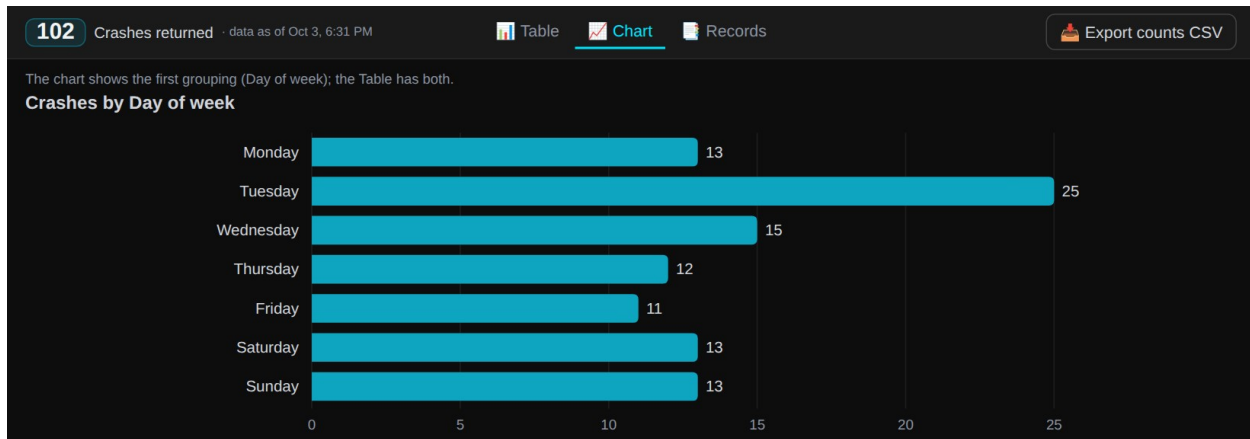
Export counts CSV

Day of week	Time of day	Crashes
Monday	Night	1
Monday	Day	12
Tuesday	Night	11
Tuesday	Day	14
Wednesday	Night	4
Wednesday	Day	11
Thursday	Night	2
Thursday	Day	10
Friday	Night	1
Friday	Day	10
Saturday	Night	2
Saturday	Day	11
Sunday	Night	3
Sunday	Day	10
Total (each crash once)		102

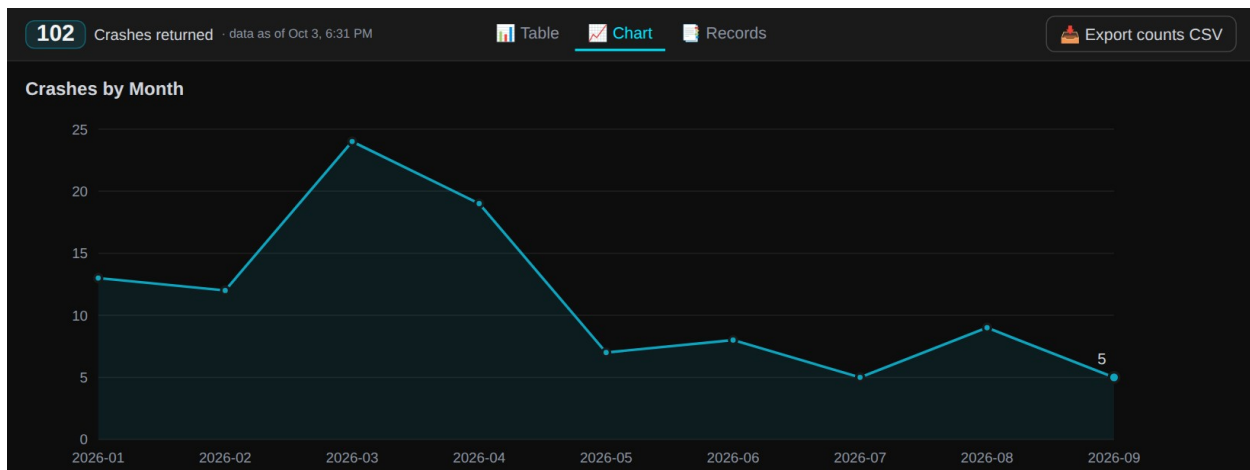
Crashes by day of week, then time of day

- One row per group, with its count. With two groupings, one row per pair.
- **Click a count** to open the records behind that row.
- **Total (each crash once)** at the bottom is the query's total. It can be less than the sum of the rows when one crash belongs to more than one row (for a field that can hold several values).
- With no Group by, the Table shows the total and reminds you to choose a grouping or open Records.

4.3 Chart



The same result as a chart



Grouped by month, the chart is a line over time

- Bars for most groupings; a line when the first grouping is a time (month, year).
- With two groupings the chart shows the first; the Table has both.
- **Click a bar or a point** to open its records.
- A chart needs a Group by. Without one it says so.

4.4 Records

Records lists what was counted: one row per crash - or per vehicle or person when that is what you counted - newest first.

18 Crashes returned · data as of Oct 3, 6:31 PM									Table Chart Records		Export records CSV
18 matching · click a row to open the report											
Crash	Date	Vehicle count	Driver count	Occupant count	Non-motorist count	Crash Severity	Alcohol involved	Contributing			
SIM000064	2026-09-09 14:28	4	4	5	0	01 — Fatal Injury (K)	99	00 — None			
SIM000052	2026-07-24 16:04	3	3	5	0	01 — Fatal Injury (K)	02	00 — None			
SIM000051	2026-07-21 15:57	3	3	5	0	01 — Fatal Injury (K)	02	00 — None			
SIMB00012	2026-04-21 22:15	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00011	2026-04-14 22:00	2	2	4	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00009	2026-04-07 23:50	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00007	2026-03-31 20:10	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00008	2026-03-31 19:45	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIM000089	2026-03-30 11:23	2	2	3	1	01 — Fatal Injury (K)	99	00 — None			
SIMB00005	2026-03-24 23:05	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00006	2026-03-24 21:00	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00002	2026-03-17 01:30	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00004	2026-03-11 22:40	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00013	2026-03-11 01:30	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00001	2026-03-10 22:40	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			
SIMB00003	2026-03-10 14:15	1	1	2	1	01 — Fatal Injury (K)	99	02 — Animal(			

Records: one row per crash, with how many of each part the report has

- **Crash** and **Date** identify the crash. When you count vehicles or people, a column says which one the row is.
- The **fields your query uses** each have a column, so you can see why the row matched.
- On crash rows, **Vehicle count**, **Driver count**, **Occupant count** and so on say how many of each part the report has, and how many meet each box of your query.
- **Report** and **Data set** say which report type the row is and which data set it came from.
- The line above the list says how many matched. The screen shows the newest rows up to a cap your administrator sets (200 unless changed); **Export records CSV** carries them all.

4.5 Opening a report and checking the crash case

Click any row to read the whole report beside the list, part by part: the crash, each vehicle, its driver and occupants, each non-motorist. Only the fields you are allowed to see are shown. When the row is a vehicle or a person, that part is marked **this row**.

18 Crashes returned · data as of Oct 3, 6:31 PM

Table

Chart

Records

Export records CSV

18 matching · click a row to open the report

Crash	Date	Vehicle count	Driver count	Occupant count	N
SIM000064	2026-09-09 14:28	4	4	5	0
SIM000052	2026-07-24 16:04	3	3	5	0
SIM000051	2026-07-21 15:57	3	3	5	0
SIMB00012	2026-04-21 22:15	1	1	2	1
SIMB00011	2026-04-14 22:00	2	2	4	1
SIMB00009	2026-04-07 23:50	1	1	2	1
SIMB00007	2026-03-31 20:10	1	1	2	1
SIMB00008	2026-03-31 19:45	1	1	2	1
SIM000089	2026-03-30 11:23	2	2	3	1
SIMB00005	2026-03-24 23:05	1	1	2	1
SIMB00006	2026-03-24 21:00	1	1	2	1
SIMB00002	2026-03-17 01:30	1	1	2	1
SIMB00004	2026-03-11 22:40	1	1	2	1
SIMB00013	2026-03-11 01:30	1	1	2	1
SIMB00001	2026-03-10 22:40	1	1	2	1
SIMB00003	2026-03-10 14:15	1	1	2	1

SIM000064

2026-09-09 14:28 · Officer report · Finished reports

×

Crash

Alcohol involved

99

Contributing Circumstances - Roadway Environment

00 — None

Crash Severity

01 — Fatal Injury (K)

Drug involved

99

Overall Intersection Geometry

97 — Not Applicable

Overall Traffic Control Device

97 — Not Applicable

Light Condition

04 — Dark-Not Lighted

Manner of Crash / Collision Impact

03 — Front-to-Rear

Type of Intersection - Number of Approaches

01 — Not at Intersection

Roadway clearance time

2026-09-10T00:00:00

Roadway Surface Condition

01 — Dry

School Bus Related

00 — No

Secondary crash

02

Specific Junction Location

00 — Non-Junction

Temperature

31

Weather Conditions

03 — Clear

Relation to Junction - Within Interchange Area

02 — No

Work Zone - Law Enforcement Present

97 — Not Applicable

Work Zone - Location of the Crash

97 — Not Applicable

Work Zone - In or Near / Related to a Work Zone

02 — No

Click a row: the whole report opens beside the list

Spot-checking: Where your state has it set up, each row has a small arrow beside the crash number, and the opened report has **Open the crash case**. Both open that crash in the state's crash system, in a new tab, so you can check a result against the case itself. If you see no arrow, your administrator has not set the link up.

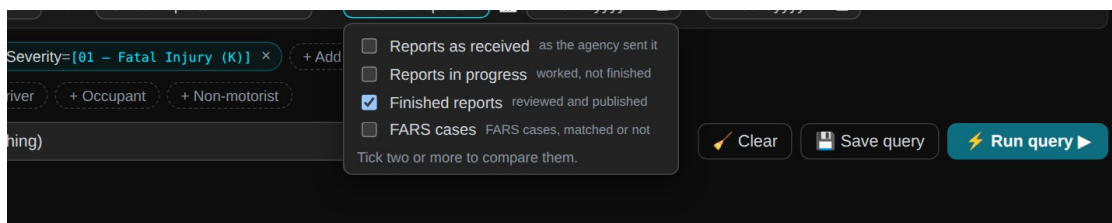
Press the **x** at the top of the report to close it.

4.6 Exporting

- On **Table** or **Chart**: **Export counts CSV** - the counts in the table.
- On **Records**: **Export records CSV** - one row per record listed, with every field you are offered, not only the ones on screen.
- If you see no Export button, your administrator has turned exporting off.
- Every export is written to the audit log with your name and the query.

5. Data sets and comparing them

5.1 The four data sets



The data set list in the query sentence

Data set	What it holds
Reports as received	Each report as the agency sent it, before anyone at the state worked it.
Reports in progress	Reports that have been worked but are not finished.
Finished reports	Reports that are reviewed and published. This is the usual choice.
FARS cases	Fatal crash cases, whether or not they have been matched to a report.

Only the data sets your state has set up are offered. **Reports in progress** and **Finished reports** together are simply **All worked reports** - each worked report is in exactly one of them.

5.2 Compare

Tick two or more data sets and run. TTAP compares them crash by crash and shows which crashes are in which.

Query Studio ? **Simulator**

Count **Crashes** from **Officer reports** in **Reports in progress + Finished reports + FARS cases** mm/dd/yyyy -

mm/dd/yyyy

Crash + Add filter

+ Vehicle + Driver + Occupant + Non-motorist

Comparing Reports in progress + Finished reports + FARS cases - crash by crash.

Clear Save query Run query ▶

116 Crashes returned · data as of Oct 3, 6:31 PM **Compare** What changed Records

All worked reports 113 crashes	FARS cases 22 crashes	Which means	Crashes
✓	✓	In both	19
✓	—	Only in all worked reports	94
—	✓	Only in FARS cases	3

FARS cases against all worked reports: in both, only in one, only in the other

- Each column is one side, with its own total.
- Each row is a pattern that occurs - **In both, Only in ...** - and how many crashes fit it.
- **Click a count** to open those crashes in Records.
- A comparison always counts crashes, and has no Group by.

5.3 What changed

When you compare two data sets, a **What changed** tab lists every field whose value differs between the two copies of the same crash, with how many crashes differ - for example, what reviewers changed between a report as received and the finished report. Click a count to open those crashes.

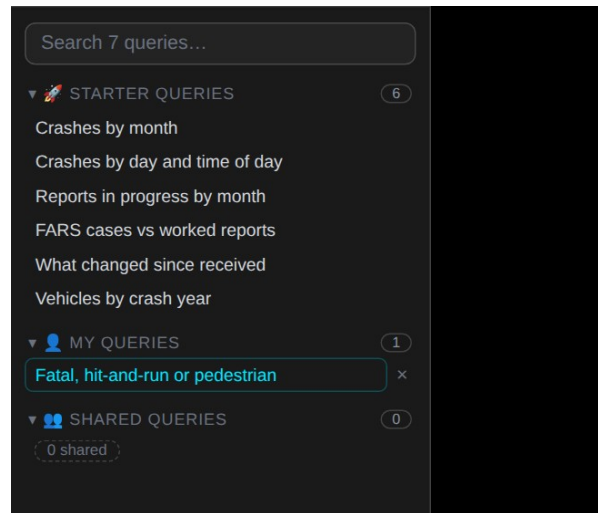
113 Crashes returned · data as of Oct 3, 6:31 PM **Compare** **What changed** Records

Crashes in both reports as received and finished reports whose copies differ, field by field.

Field	Crashes changed
Color vehicles.color	19
Weather Conditions classification.weatherCondition	19

What changed between reports as received and finished reports

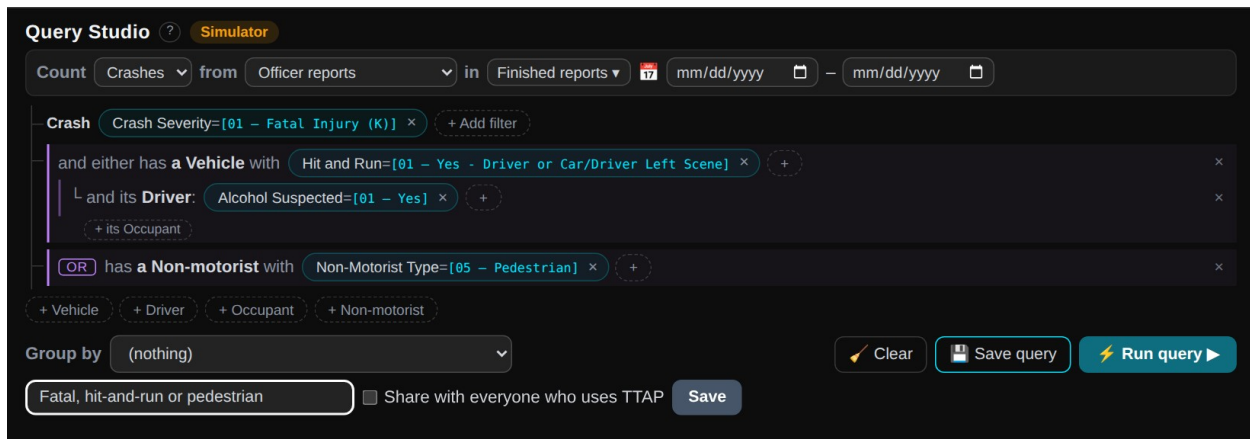
6. Saving and sharing queries



The query library

- **Starter queries** - ready-made examples. Click one to load and run it, then change it as you like.
- **My queries** - the ones you saved. Click to load; the **x** deletes one. A query you shared is marked **shared**.
- **Shared queries** - saved by others and shared with everyone who uses TTAP. Hover to see who shared it. Loading one gives you your own copy to change.
- The **search box** at the top finds a query by name across all three.

6.1 Saving a query



Save query: name it, and choose whether to share it

1. Build the query and press **Save query**.
2. Type a name.
3. Tick **Share with everyone who uses TTAP** if others should see it.
4. Press **Save**. It appears under My queries.

When you have loaded one of your own queries and changed it, **Save changes** updates it and **Save as new** keeps the original and saves the changed one under the new name.

Note: Clicking a query in the library loads it and runs it at once, so you see its answer straight away.

7. What TTAP tells you about gaps

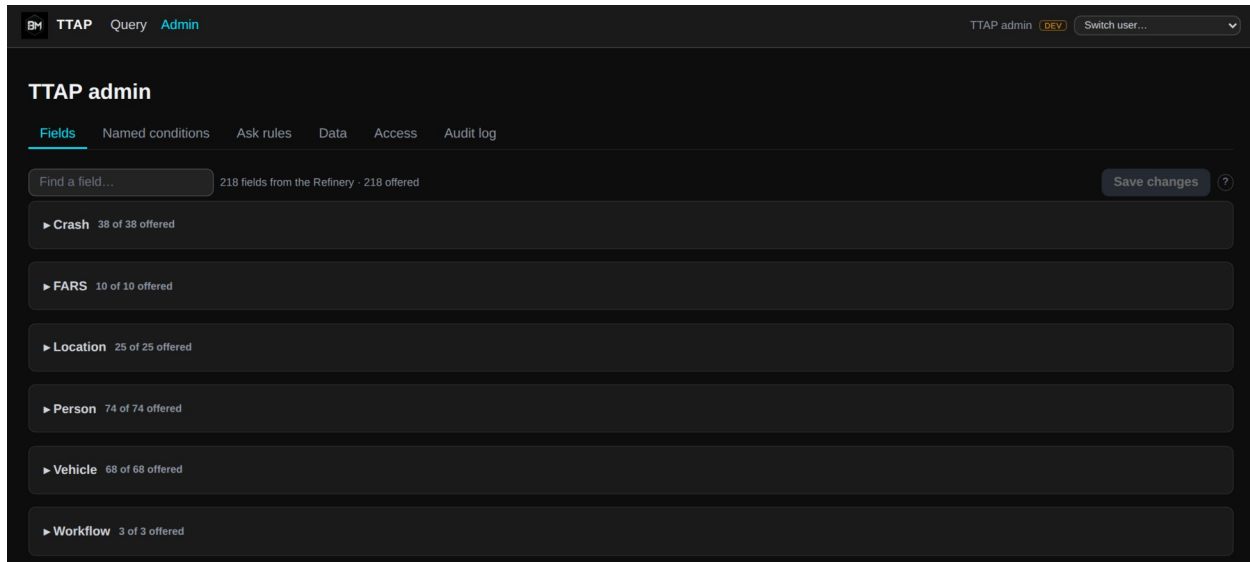
TTAP never silently leaves something out. When the data cannot fully answer a question, it says so on screen - above the query, or above the result.

What you see	What it means
Red bar: "The Refinery couldn't be reached on the last refresh ... TTAP is answering from the last good refresh, ..."	The data on screen is older than usual. The answer is right as of the time shown, and may be missing newer reports.
Amber bar: "... can't be reached in the Refinery", "... aren't sent to TTAP by the Refinery yet" or "... aren't set up in the Refinery"	One of the data sets is not available. Queries that need it say so.
Amber bar: "N new field(s) arrived after the last full rebuild ..."	A field was added recently. Reports synced before then have no value for it until an administrator presses Rebuild now (section 8.4). Hover over the bar to see which fields.
"N report(s) waiting for their report type."	The state system has not yet said whether these are officer or driver reports. They are kept out until it does.
Partial results: above a result	The count is right for what TTAP has, and the bar says what is missing - for example crashes not yet FARS-coded.
Simulator tag beside Query Studio	This is a test system running on made-up crashes, not real data.
No data yet	TTAP is not connected to the state system, or has not finished its first refresh.

8. TTAP admin

The **Admin** link appears for people with the ManageTtap permission. It has six tabs. Every change made here is written to the audit log with your name.

8.1 Fields



Fields: which fields analysts are offered, and what they are called

- The list is every field the state system sends, in groups. Click a group to open it; **Find a field** searches all of them.
- Tick **Officer** and/or **Driver** to offer a field to analysts searching that report type. A field that is not ticked is not offered anywhere - not in filters, not in Group by, not in a report.
- **Shown as** renames a field on the analyst screen.
- **New fields arrive unticked** and are marked **new**, so nothing is offered until you decide.
- TTAP's own When fields (day, time of day, month ...) are always offered.
- Press **Save changes** when done.

8.2 Named conditions and Time of day

TTAP admin

Fields **Named conditions** Ask rules Data Access Audit log

Time of day ?

Night 06:00 PM to 06:00 AM Remove

Day 06:00 AM to 06:00 PM Remove

+ Band Save bands

Named conditions ?

Alcohol suspected, no BAC level Driver - Alcohol Test Result has a value AND Alcohol Test Result is not 01 — Negative AND Blood alcohol level is blank AND Alcohol Suspected is 01 — Yes Edit Delete

Alcohol-impaired driver Driver - Blood alcohol level $\geq$ 0.08 OR Alcohol Suspected is 01 — Yes Edit Delete

CEA Impaired Driver Driver - Alcohol Test Result is 02 — Positive OR Blood alcohol level > 0.010 OR alc-suspected-no-level OR Drug Test Result is 02 — Positive OR drug-suspected-not-negative Edit Delete

Drug suspected, not negative Driver - Drug Test Result has a value AND Drug Test Result is not 01 — Negative AND Drugs Suspected is 01 — Yes Edit Delete

Positive FARS drug result Non-motorist - FARS drug test result between 1001 — 1-Cyclohexyl-4-(1,2-diphenylethyl) piperazine (MT-45), 9994 Edit Delete

+ Named condition

Named conditions tab: the Time of day bands, and the agency's named conditions

Time of day

Each crash's **Time of day** is the band its clock time falls in. A band may run past midnight (Night = 18:00 to 06:00). Add, rename or remove bands and press **Save bands**; every stored crash is re-worked at once. Day of week is not affected - it is always the calendar day.

Named conditions

A named condition is a term your agency defines once, for one part of the crash (the crash itself, a vehicle, a driver ...). Analysts then pick it like a field.

1. Press **+ Named condition** and give it a name.
2. Choose what it **applies to** - the Crash, or one of the parts.
3. Choose **any** (true when any of its conditions is) or **all** (only when every one is).
4. Add the conditions, picking fields and values from the lists exactly as an analyst does.
5. Add a description analysts will see, if you like, and press **Save**.

Tip: Use a named condition whenever a word means a fixed set of codes - "dark" as three of the codes on your light condition list, say. Analysts pick the term, and everyone gets the same codes.

8.3 Ask rules

The **Ask box** (section 3.10) lets a person type a question in plain words; a model that runs on the state's own equipment fills in the query, and the person checks it and presses Run. The model never runs a query itself. **Ask rules** are the plain-language rules that model is given, so that a word means the same thing every time.

TTAP admin

Fields Named conditions **Ask rules** Data Access Audit log

Ask rules ?

The Ask box is not in this build yet. Rules saved here are kept and will be used when it is.

Hide the example

An example rule, part by part

When the question says fatal fatalities
The words that bring the rule into play, separated by spaces. Put in every form people type (singular, plural, slang). Leave it empty and the rule applies to every question.

The rule
A "fatal" is counted at the crash level: count crashes where crash severity is the code for a fatal crash.
One plain sentence, written the way you would explain it to a new analyst. Say what the word means, what is being counted (crashes, vehicles or people), and which field and code to use - by the name and code on your own forms. One idea per rule; write a second rule for a second idea.

Fields
Pick from the list: the field the rule is about - here, your crash severity field.
Whenever the rule applies, these fields and their codes are shown to the model, so it can use the code you named. A rule with no fields is still used, as wording only.

Means the named condition
Optional. Pick a named condition the word stands for.
Use this when a word means a fixed set of codes - say, "dark" is three of the codes on your light condition list. Build that set once on the Named conditions tab, picking the codes from the list, then point the rule at it. The model then only has to recognise the word; the codes are yours.

On
Untick to keep a rule without using it.

Rules are read top to bottom; put the ones that matter most first.

Start a rule from this example

☒ On when the question says fatal ↑ ↓ Delete

A "fatal" or "fatal crash" is counted at the crash level: count crashes, crash severity 01.

fields Crash: Crash Severity × + Field means the named condition (none) ↓

☒ On when the question says fatality fatalities killed died deaths ↑ ↓ Delete

A "fatality" is counted at the person level: count people whose injury status is 01, occupants or non-motorists.

Ask rules, with the example opened

Part of a rule	What to put
On	Untick to keep a rule without using it.
When the question says	The words that bring the rule into play, separated by spaces. Put in every form people type. Leave it empty and the rule applies to every question.
The rule	One plain sentence, written the way you would explain it to a new analyst: what the word means, what is counted, and which field and code to use. One idea per rule.
Fields	The fields the rule is about. They are offered to the model whenever the rule applies.
Means the named condition	Optional. A named condition the word stands for (section 8.2). Use it when a word means a fixed set of codes: the model then only has to recognise the word, and the codes are yours.

- **Show an example rule** opens a worked example, part by part. **Start a rule from this example** adds it to your list to finish with your own field and code.
- **+ Rule** adds an empty one. The arrows move a rule up or down; rules are read top to bottom.
- Press **Save rules** when done. A new install starts with no rules - they are yours to write.
- **Fields a rule names in several parts of the crash** - an injury status for occupants and for non-motorists, say - are offered together, and choosing them fills in boxes joined by **or**.
- **A word that means a fixed set of codes** ("dark") is best pointed at a named condition: the codes are then added exactly as you defined them, not chosen by the model.

8.4 Data

TTAP admin

Fields Named conditions Ask rules **Data** Access Audit log

Connection

Source: Local simulator — synthetic test data
 Last good refresh: Oct 3, 2026 6:31 PM
 Last try: Oct 3, 2026 6:31 PM - worked (476 change(s))
 Last full rebuild: Oct 3, 2026 6:31 PM
 Report types: Officer and driver reports
 Sources: Finished reports: Available Reports in progress: Available FARS cases: Available Reports as received: Available

Refresh now **Rebuild now** ?

Settings

Refresh: Every 15 minutes
 Records screen cap: 200 rows
 CSV export: ☒ Analysts may export CSV

Save settings

Doctor

- OK Local simulator — synthetic test data
- OK The last refresh worked.
- OK Field catalog: 218 fields, 4 unit kinds.
- OK Query store: 295 reports.
- OK 218 fields offered to analysts.
- OK At least one role can open TTAP.
- OK No reports held back.

Data: the connection, the settings and the Doctor check

Connection

- **Source**, **Last good refresh**, **Last try** and **Last full rebuild** say where the data comes from and how fresh it is.
- **Report types** and **Sources** say what your state has set up.
- **Refresh now** pulls what changed since the last refresh.
- **Rebuild now** throws TTAP's copy away and pulls every report again. It is never needed day to day - use it when a new field has arrived and older reports need its values.

Settings

- **Refresh** - every 5 minutes, every 15 minutes, every hour, or nightly at a time you choose.
- **Records screen cap** - the most rows the Records tab shows (the CSV always carries them all).
- **CSV export** - whether analysts may export.

Doctor

A list of checks, each marked **OK** or **Check**: the connection, the last refresh, the field list, how many reports are stored, how many fields are offered, whether any role can open TTAP, and whether any reports are being held back. Start here when something looks wrong.

8.5 Access

TTAP admin

Fields Named conditions Ask rules Data **Access** Audit log

Roles and permissions ?

Role	TTAP	TtapOfficerReports	TtapDriverReports	TtapAllUserActivity	ManageTtap	
CrashAnalyst	☒	☒	☐	☐	☐	Remove
DriverReportAnalyst	☒	☐	☒	☐	☐	Remove
Supervisor	☒	☒	☒	☒	☐	Remove
TtapAdmin	☒	☒	☒	☒	☒	Remove

Role name [Add role](#)

What each permission opens

- [TTAP](#) The TTAP screen
- [TtapOfficerReports](#) Officer reports as a choice
- [TtapDriverReports](#) Driver reports as a choice (only if the state has them)
- [TtapAllUserActivity](#) Reviewer and workflow numbers for everyone; without it a person sees only their own
- [ManageTtap](#) The admin pages

Access: which role holds which permission

Each row is a role; each column a permission (section 1.4). Tick the permissions a role should hold. On a live system each role is a group in your state's directory: everyone in the group gets the ticked permissions. At least one role must keep ManageTtap, so the admin pages can never be locked out.

8.6 Audit log

TTAP admin

Fields Named conditions Ask rules Data Access **Audit log**

Recent activity

When	Who	What	Rows	Detail
Oct 3, 18:36:32	supervisor	Run	113	{"count":"Crashes","from":"Officer","in":["AsReceived","Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":[]}
Oct 3, 18:36:31	supervisor	Run	113	{"count":"Crashes","from":"Officer","in":["AsReceived","Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":[]}
Oct 3, 18:36:27	supervisor	Run	116	{"count":"Crashes","from":"Officer","in":["InProgress","Finished","Fars"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":[]}
Oct 3, 18:36:26	supervisor	Run	116	{"count":"Crashes","from":"Officer","in":["InProgress","Finished","Fars"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":[]}
Oct 3, 18:36:22	supervisor	Open record	1	SIM000064
Oct 3, 18:36:18	supervisor	Records	18	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[{"field":"classification.crashSeverity","op":"I...
Oct 3, 18:36:15	supervisor	Records	18	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[{"field":"classification.crashSeverity","op":"I...
Oct 3, 18:36:15	supervisor	Run	18	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[{"field":"classification.crashSeverity","op":"I...
Oct 3, 18:36:06	supervisor	Run	102	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":["ttap.month"]}
Oct 3, 18:36:05	supervisor	Run	102	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":["ttap.month"]}
Oct 3, 18:36:03	supervisor	Run	102	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":["ttap.dayOfWeek"]}
Oct 3, 18:36:00	supervisor	Run	102	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":["ttap.dayOfWeek","ttap...}
Oct 3, 18:35:59	supervisor	Run	102	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[],"boxes":[],"groupBy":["ttap.dayOfWeek","ttap...}
Oct 3, 18:35:53	supervisor	Records	12	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[{"field":"classification.crashSeverity","op":"I...
Oct 3, 18:35:53	supervisor	Run	12	{"count":"Crashes","from":"Officer","in":["Finished"],"fromDate":null,"toDate":null,"where":[{"field":"classification.crashSeverity","op":"I... [{"id":"sim-fatal","when":"fatal","text":"A \u0022fatal\u0022 or \u0022fatal crash\u0022 is counted at the crash level: count crashes, crash severity

Audit log: who did what, and when

Every query run, record list, export and admin change is listed with when, who, what, how many rows, and the detail. Hover over the detail to see the full query.

9. Quick reference

9.1 Labels you'll see

Label	Where	Meaning
Simulator	Beside Query Studio	Test data from the built-in simulator, not real crashes.
counted	On a box	The vehicles or people in this box are the ones being counted.
and / OR	In front of a box	Whether this box is required as well as the one above, or instead of it. Click to switch.
(any vehicle)	In an empty box	The crash must have one; nothing more is asked of it.
Includes driver reports	Results bar	The result includes driver reports.
Officer report / Driver report	Records	Which report type the row is.
this row	An opened report	The vehicle or person the row was about.
shared	My queries	You have shared this query with everyone.
new	Admin, Fields	A field that arrived since you last saved the field list.
OK / Check	Admin, Data, Doctor	The result of each check.

9.2 Messages

Message	What to do
No access - "Your account doesn't have access to TTAP."	Ask your TTAP administrator to give your role the TTAP permission.
No data yet - "TTAP isn't connected to the Refinery ..."	Your administrator connects it in TTAP's settings.
No data yet - "TTAP hasn't finished its first sync yet."	Wait a moment and press Check again .
"Define query parameters or select a grouping above to render analytics."	Nothing has been run yet. Build a query and press Run query.
"... not broken down. Choose a Group by and run again for a table of counts - or open Records to see each one."	The query ran. Add a Group by for a table, or open Records.
"A chart needs something to compare."	Choose a Group by and run again.
"Nothing matched, so there is nothing to chart."	The query found nothing. Loosen a filter, or check the dates and the data set.
"Nothing recorded in the fields you can see."	That part of the report has no values in the fields offered to you.
A red bar under the buttons after Run query	The query is incomplete or does not make sense; the bar says what to fix.
"Couldn't turn that into a query: ..." (Ask box)	The question isn't about crash data, or asks for something TTAP doesn't have. Reword it, or build the

Message	What to do
	query yourself.
"Type a question about crashes, in words." (Ask box)	The box was empty or held no real words.
"The model took too long to answer." / "The model is busy" (Ask box)	Try again in a moment, or build the query yourself.

9.3 Glossary

Term	Meaning
TTAP	Traffic & Transportation Analysis Probing.
Query	A question, built on screen as one sentence.
Filter / condition	One test a crash, vehicle or person must pass - a field, how it must match, and the values.
Box	A vehicle, driver, occupant or non-motorist the crash must have, with its own conditions. All conditions in a box are about the same one.
Named condition	A term the agency has defined once, picked like a field.
Group by	The field the count is broken down by.
Data set	One body of reports: as received, in progress, finished, or FARS cases.
Fatal	Counted at the crash level: a fatal crash.
Fatality	Counted at the person level: a person killed.
Officer report / Driver report	The two report types. Officer reports are the usual choice.
Refresh	TTAP pulling what changed from the state's crash system.
Rebuild	TTAP throwing its copy away and pulling every report again.
The Refinery	The state's crash intake system, the system of record.