

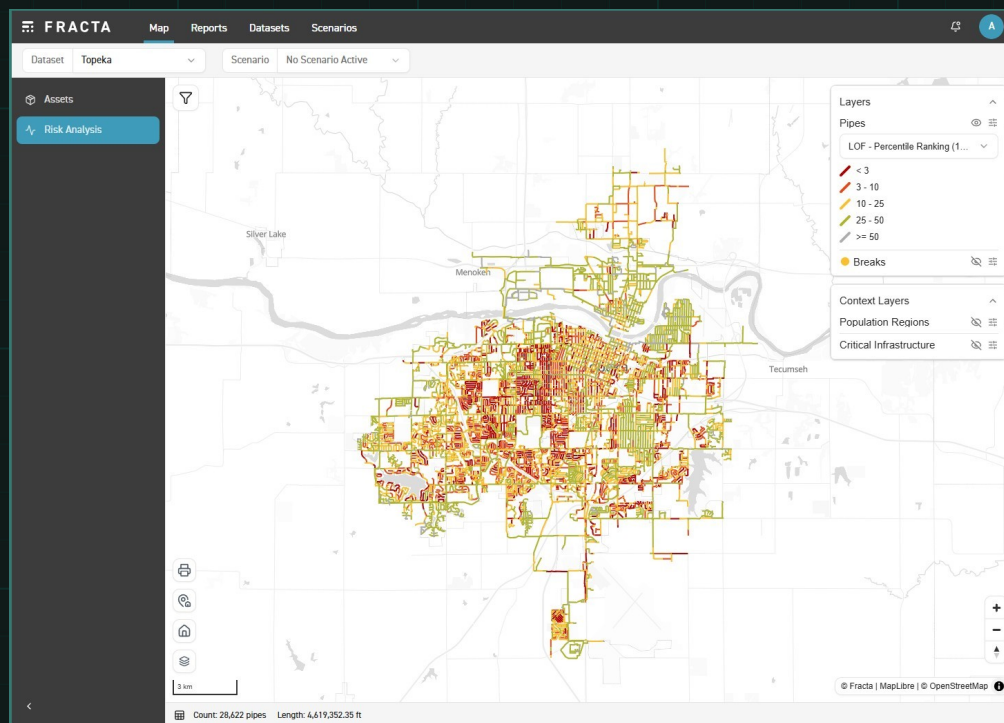


PREDICT · PRIORITIZE · PROTECT

User Manual

Map and Risk Analysis

A guide to visualizing your water distribution assets, interpreting predictive risk results, and building cost-of-failure scenarios in the Fracta application.



VERSION

1.0

RELEASED

September 2026

AUDIENCE

Fracta customers (US)

Know where failure waits.

IN THIS MANUAL

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1 About This Manual

This manual introduces the redesigned Fracta user interface. It walks through the Map page — where your assets and analysis results are visualized — and explains how to filter, inspect, export, and interpret the data behind each view.

It is written for everyone who uses Fracta day to day, from GIS analysts building capital plans to engineering and operations staff reviewing risk. No prior experience with the new interface is assumed.

What you will find in each section:

- Step-by-step instructions for the controls available on each screen.
- Annotated screenshots, with the relevant control outlined in red.
- Notes that call out behavior which depends on your subscription level.

NOTE Some features described here — including Cost of Failure, Total Risk, and scenarios — are available only with the corresponding subscription. If a feature does not appear in your account, contact your Fracta representative.

2 Getting Around the Application

2.1 Navigation bar

The navigation bar runs across the top of every screen and gives you access to the four main areas of the application:

- **Map** — visualize your assets and analysis results.
- **Reports** — review generated reporting for your datasets.
- **Datasets** — manage the datasets available to your organization.
- **Scenarios** — create and manage Cost-of-Failure scenarios.

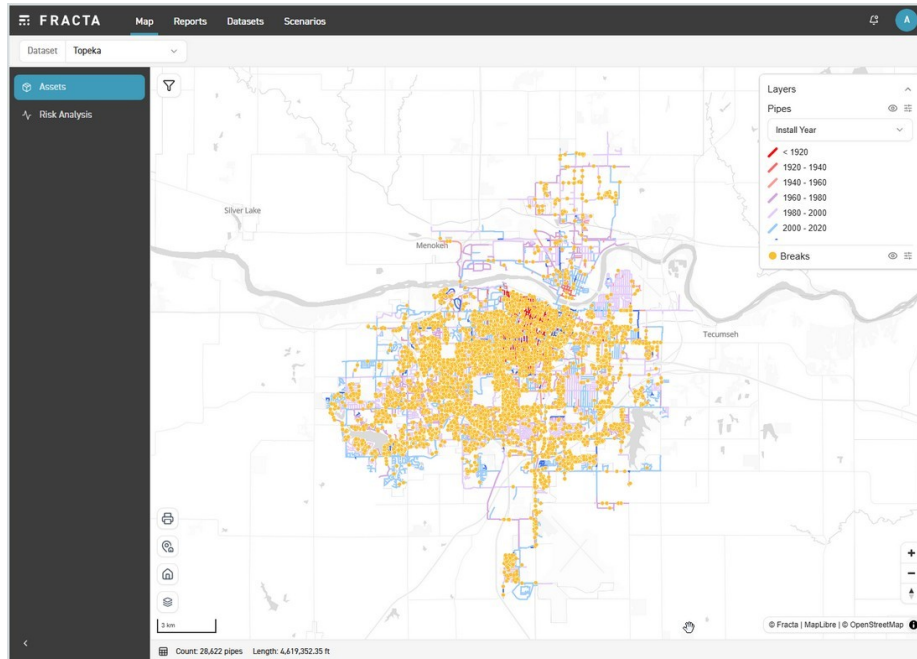


Figure 1. The Map page, showing the full asset network for the selected dataset.

2.2 Selecting a dataset

Use the dataset selector in the subnavbar at the top of the screen to switch between datasets. Your selection carries across the application, so the Map, Reports, and Scenarios pages all reflect the dataset you choose here.

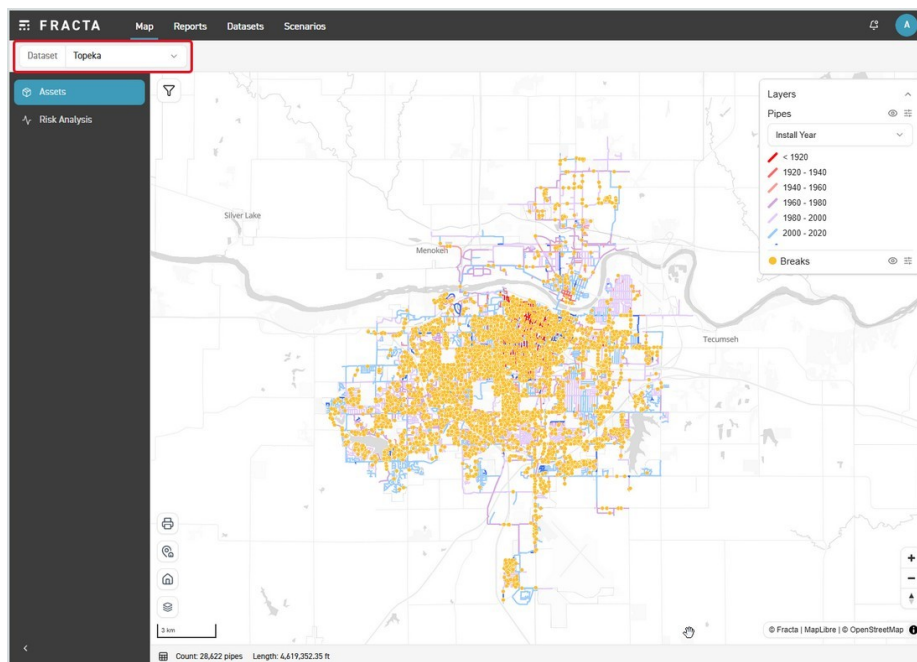


Figure 2. The dataset selector in the subnavbar.

3 The Map Page

The Map page is where all assets and analysis results are visualized. Everything on this page responds to the dataset selected in the subnavbar and to any filters you have applied.

3.1 Legend and layers

The legend for the current map view appears in the top-right corner. It doubles as the layer control panel.

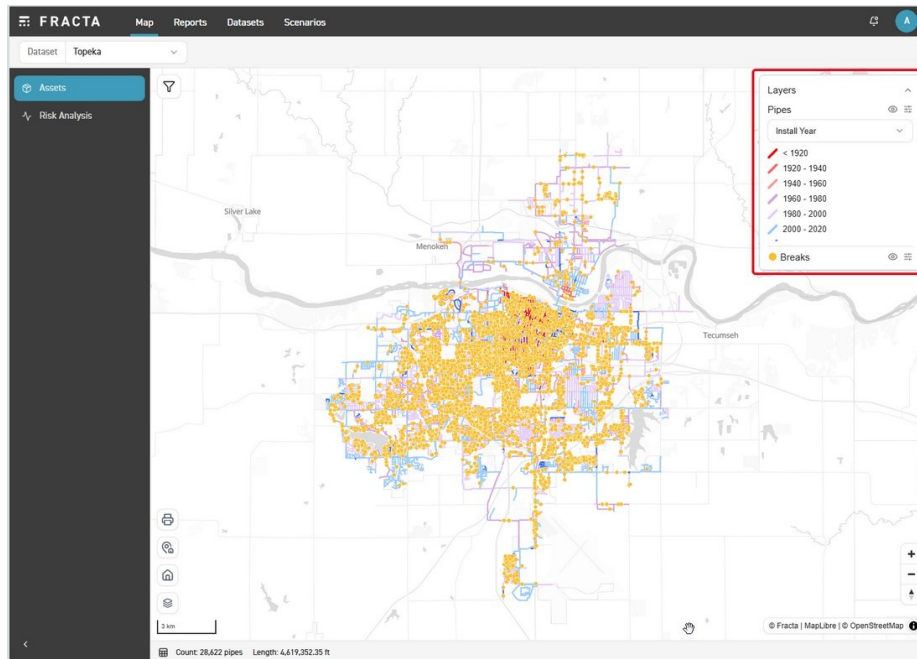


Figure 3. The legend and layer panel in the top-right corner of the map.

Choosing what metric to visualize the pipes by

Use the dropdown menu at the top of the panel to change the property that determines pipe color — for example, install year, material, or diameter.

Showing and hiding layers

Click the eye icon next to any layer to toggle its visibility on the map.

Adjusting layer settings

Click the settings icon next to a layer to open its settings dialog. Here you can change the colors assigned to each property value and, where the property is numeric, edit the ranges each color represents. Click Apply to confirm your changes, or Reset to restore the defaults.

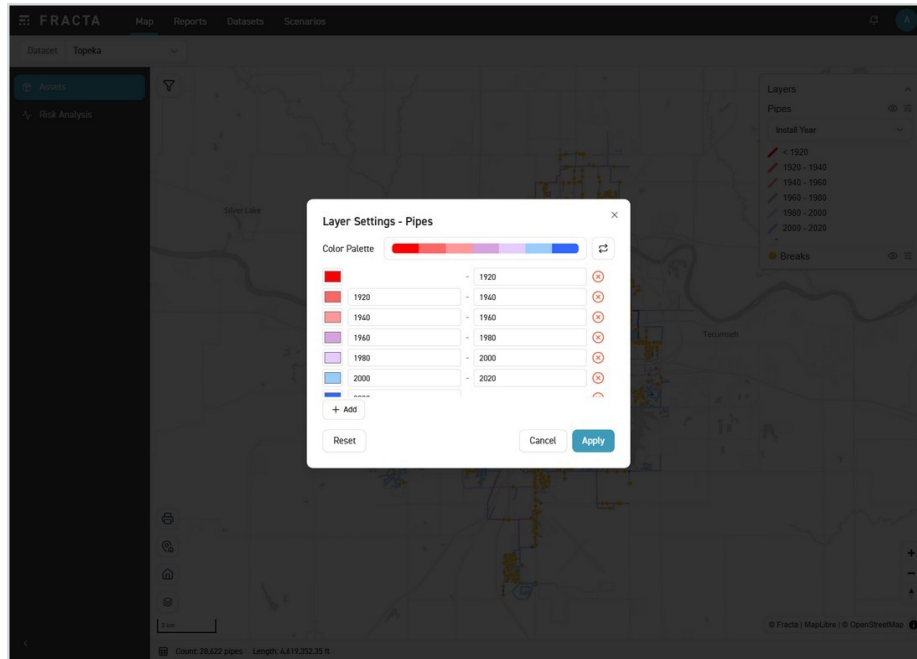


Figure 4. The layer settings dialog, showing the color palette and editable ranges.

3.2 Map controls

The bottom-left corner of the map contains a set of tools that support your viewing experience.

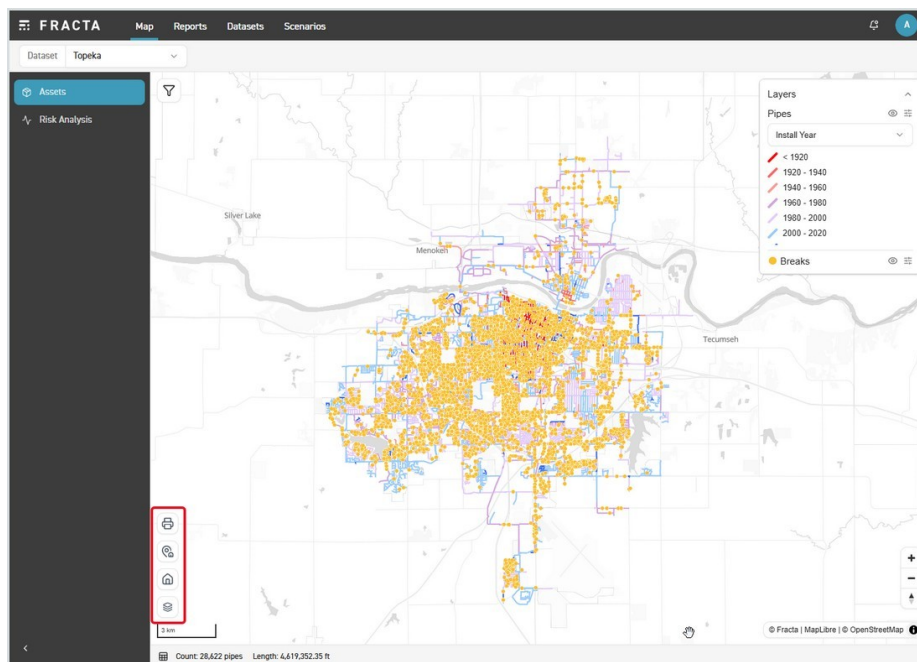


Figure 5. Map controls in the bottom-left corner of the map.

Export

Click the printer icon to export the current view of the map.

Set default map view

Save your exact current location and zoom level as your default view. Once set, it is applied every time you return to the application.

Go to default map view

Return the map to the default view you saved with the control above.

Set map style

Switch the basemap between the light and dark styles.

3.3 Filters

Open the filters menu using the filter icon in the top-left corner of the map.

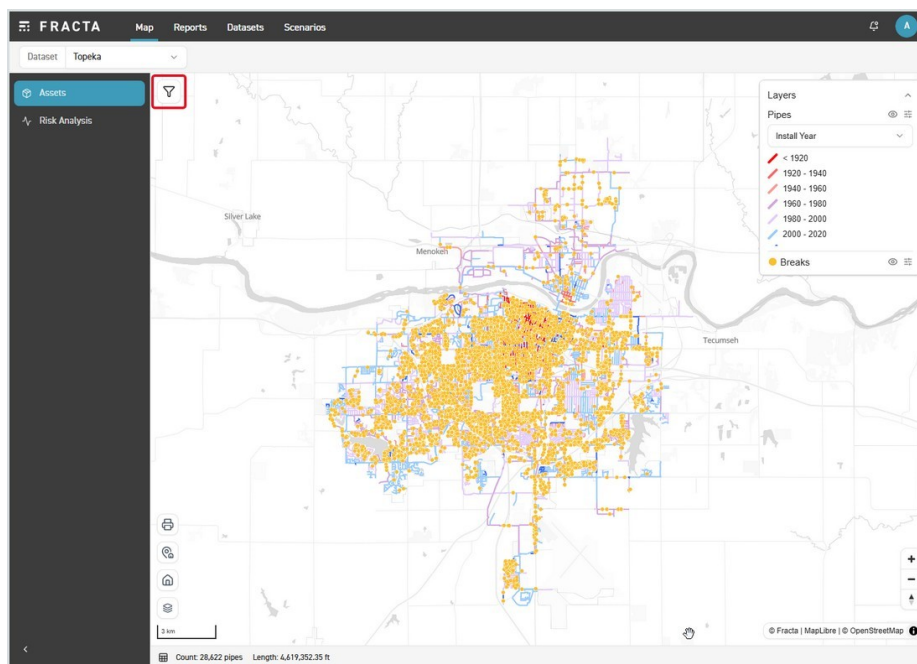


Figure 6. The filters icon in the top-left corner of the map.

Within the menu you can filter by any property or map layer present in the current map view. To restrict filtering to part of the network, use the Draw a rectangle or Draw a freehand polygon tools to define the area you are interested in.

TIP Filters apply to the details table as well as the map, so narrowing the view first is the quickest way to export a specific set of assets.

3.4 Details window

Click any asset on the map to open the details window. It gives you a quick overview of that asset — enough to identify it and browse the properties associated with it, such as diameter, material, installation year, and length.

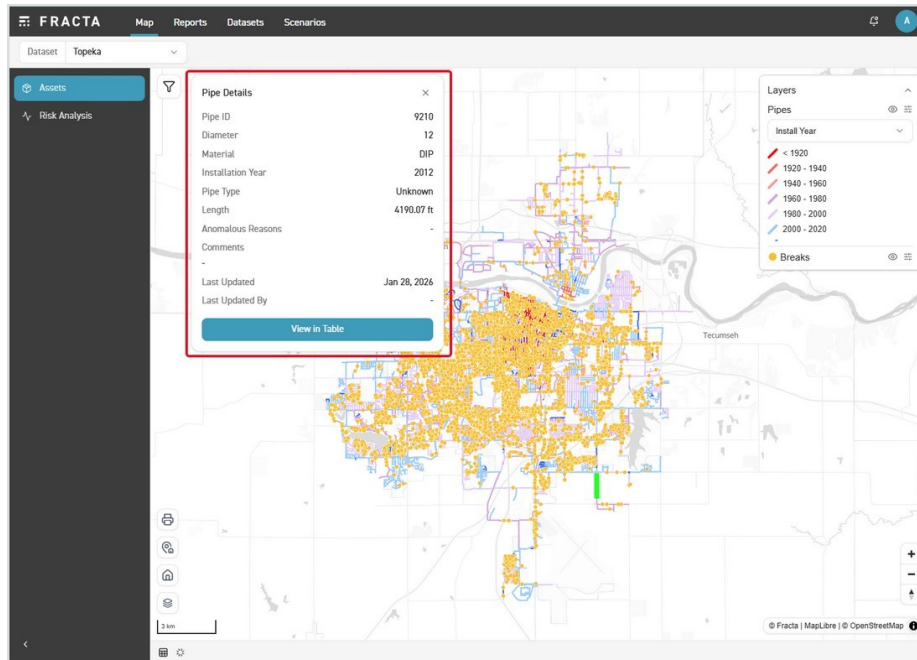


Figure 7. The details window for a selected pipe.

3.5 Details table

Click View in Table in the details window to open the selected asset in the details table, where you can see it alongside other assets in a filterable, sortable table.

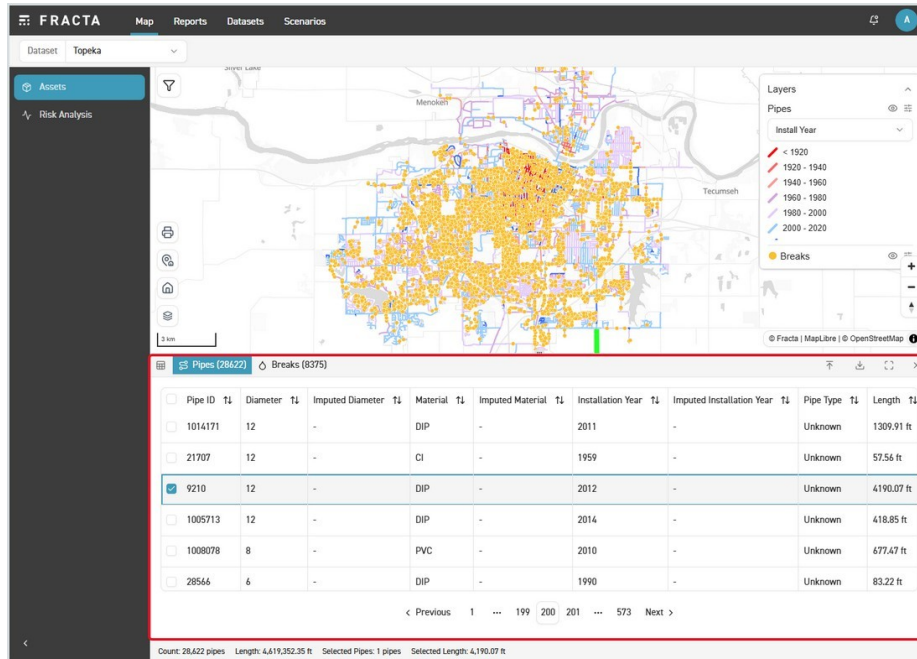


Figure 8. The details table, with the selected pipe highlighted.

To locate a specific asset back on the map, choose Zoom / Move to this feature from the three-dot menu at the right-hand end of its row.

Table controls

The controls at the top-right of the table panel let you work with the data in more powerful ways.

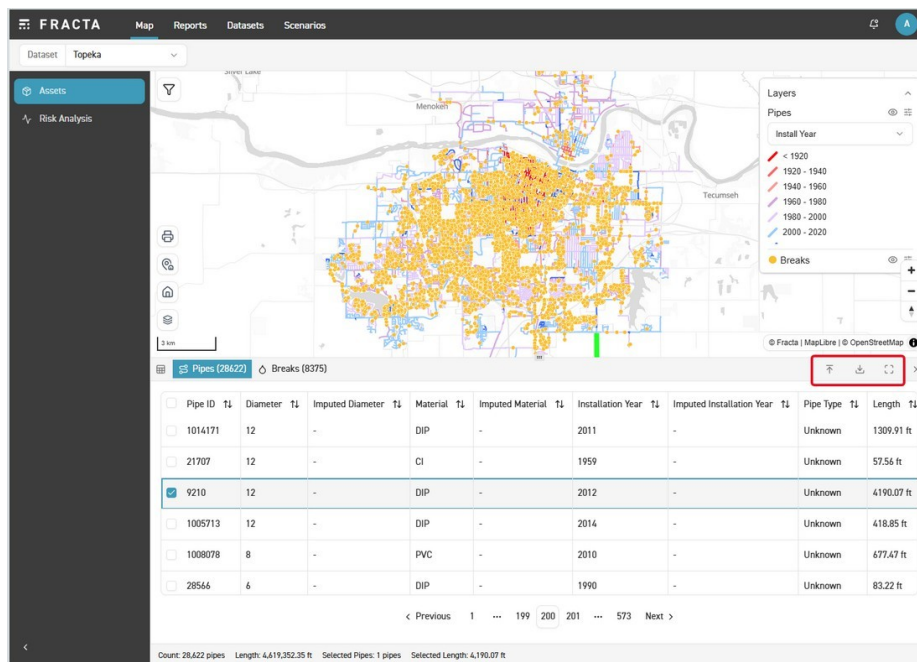


Figure 9. Table controls in the top-right of the table panel.

Move selection to top

Selected assets may be spread across several pages of the table. Use Move Selection to Top in the top-right of the table panel to bring them all to the first page.

Download

Download the currently filtered assets using the download button in the top-right of the table panel.

Adjust table size

Drag the top border of the table to change its height, or use Maximize Table in the top-right of the panel to switch to full-screen mode.

3.6 Selecting multiple assets

You can select several assets at once using a keyboard combination when clicking pipes on the map:

Operating system	Command
Windows	CTRL + Click
macOS	⌘ + Click

When multiple assets are selected and the table view is open, each of those assets is highlighted in the table. Use Move Selection to Top, described above, to aggregate them all on the first page.

4 Map Views

The Map page offers two data views, selected from the panel on the left:

- **Assets** — your asset inventory and its recorded properties.
- **Risk Analysis** — the predictive results Fracta generates from that inventory.

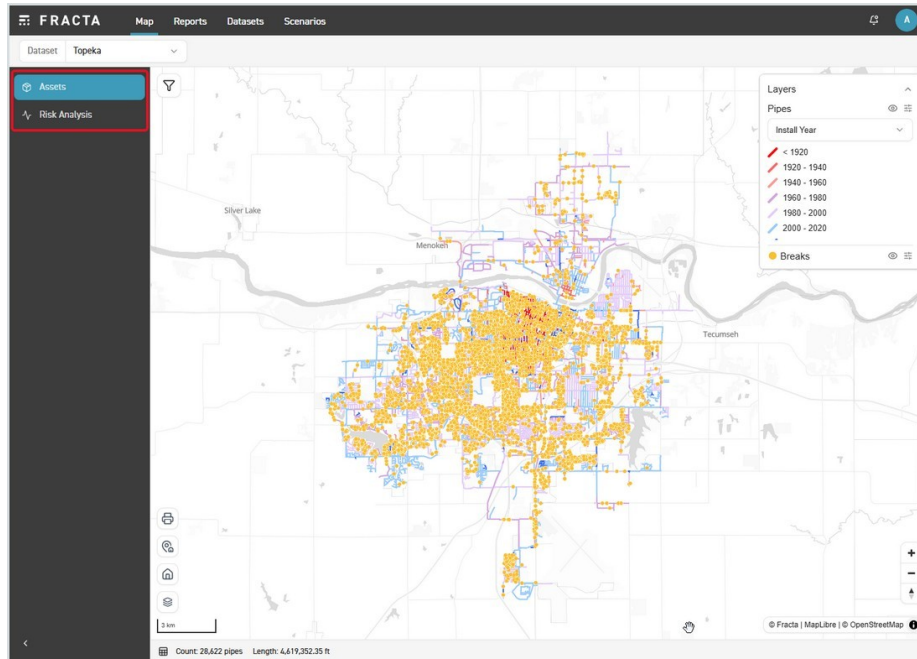


Figure 10. The Assets and Risk Analysis views in the left-hand panel.

4.1 Assets

The Assets view lets you visualize and browse the assets themselves — water pipes, valves, and the breaks associated with those pipes. In this view you see the innate properties recorded for each asset, such as install year, material, and diameter.

4.2 Risk Analysis

The Risk Analysis view shows the predictive results associated with your dataset. Depending on your subscription level, this is where you find the Likelihood of Failure, Cost of Failure, Total Risk, Length, and Population views.

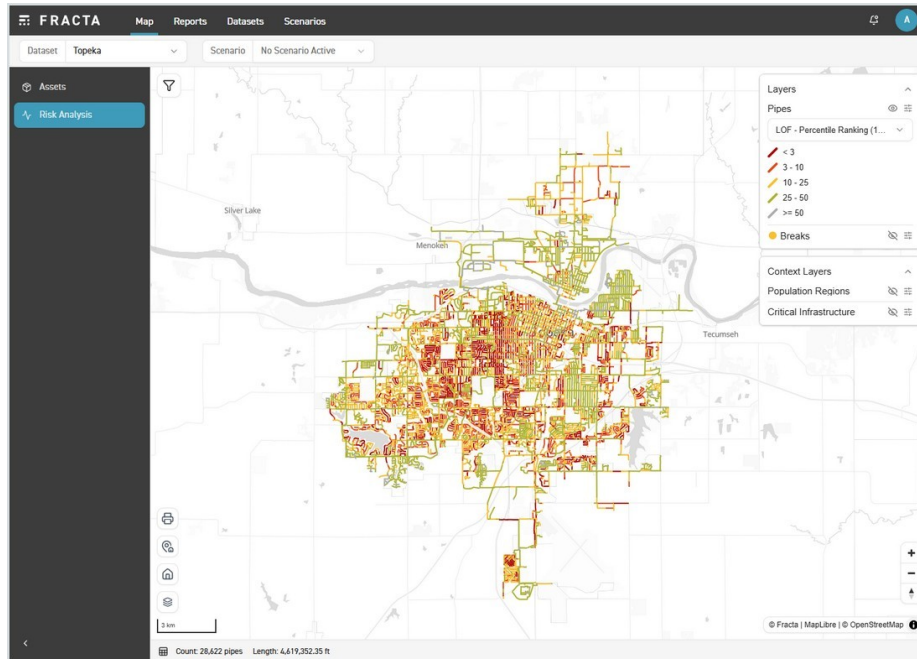


Figure 11. The Risk Analysis view, colored by Likelihood of Failure percentile ranking.

Context layers

When they are available for your dataset, you can display additional context layers — including Population and Critical Infrastructure — using the secondary legend that appears in this view.

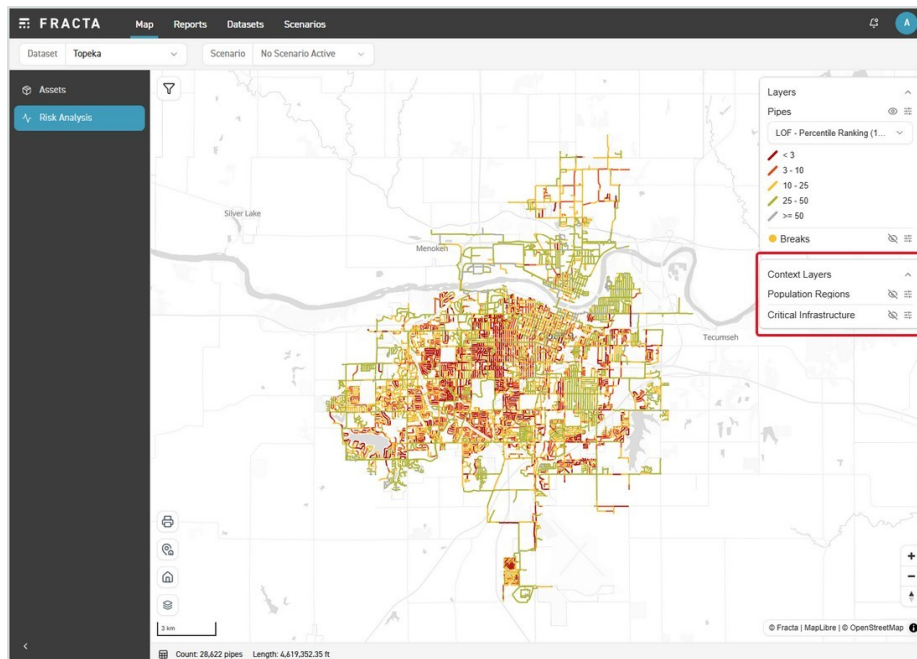


Figure 12. The secondary legend containing context layers.

Population

The Population context layer shows the future expected population for a given area. It is drawn as a mesh over the map, so you can overlay pipe risk levels and judge the future-population impact a given pipe may have.

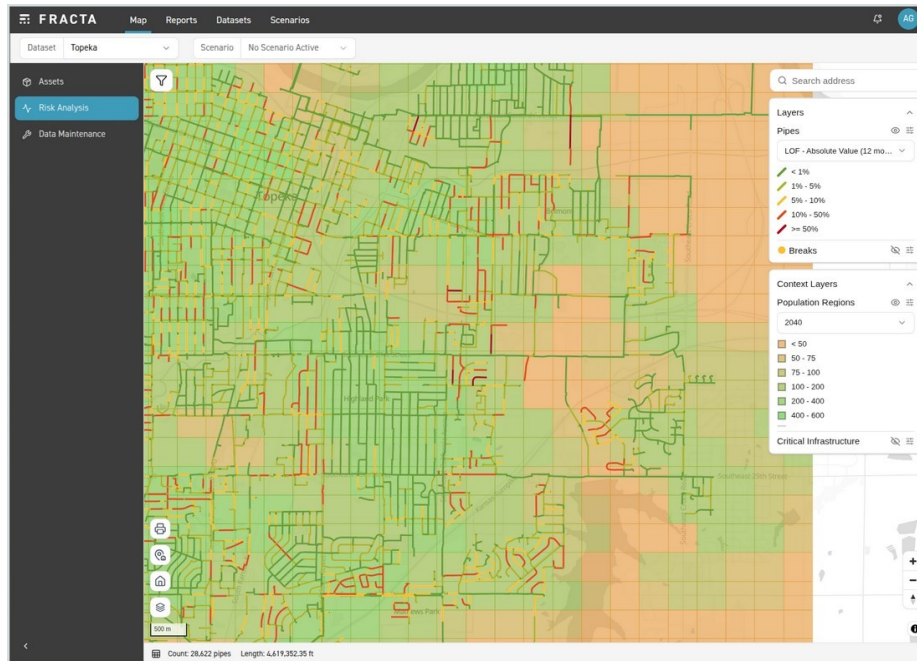


Figure 13. The Population context layer, with pipes colored by Likelihood of Failure.

Critical Infrastructure

The Critical Infrastructure context layer shows high-impact infrastructure — such as stadiums, airports, shelters, hotels, and malls — that warrants additional attention when planning capital improvement work.

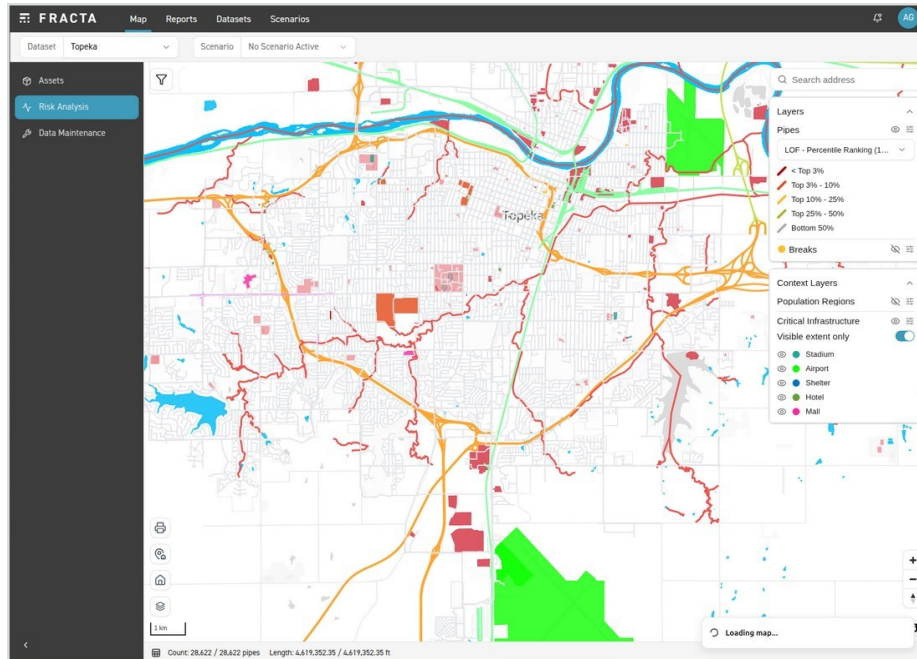


Figure 14. The Critical Infrastructure context layer over the pipe network.

4.3 Cost of Failure and Total Risk

Cost-of-Failure and Total Risk results are available as separate layers within the Risk Analysis view. Both vary according to the scenario you have selected.

Selecting a scenario

With a Cost-of-Failure subscription, you can switch between scenarios using the scenario selector in the subnavbar at the top of the screen.

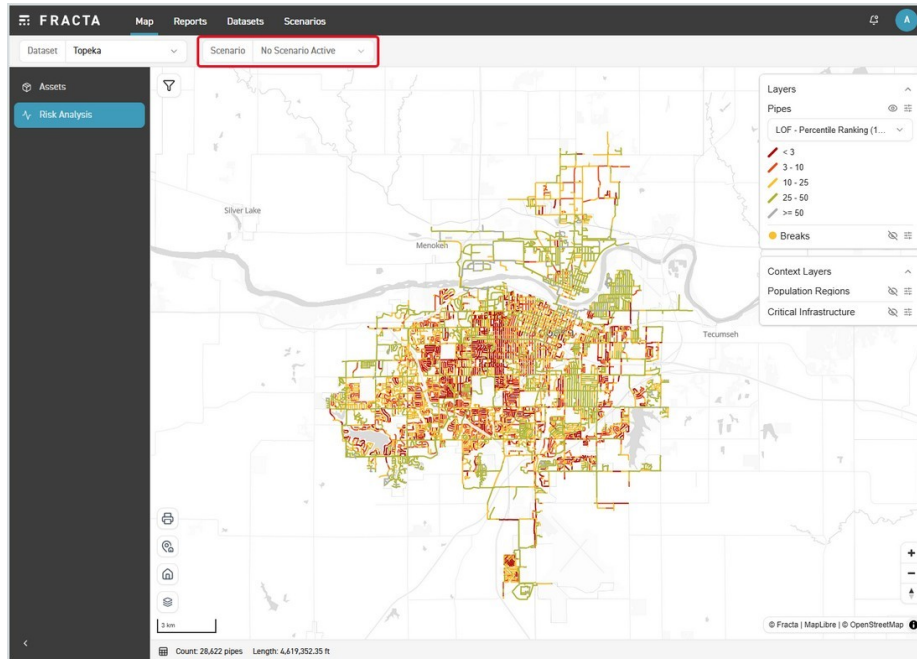


Figure 15. The scenario selector in the subnavbar.

Managing scenarios

Your scenarios are listed under the Scenarios tab. Use the three-dot menu beside any scenario to update or delete it, and the Create button to build a new one.

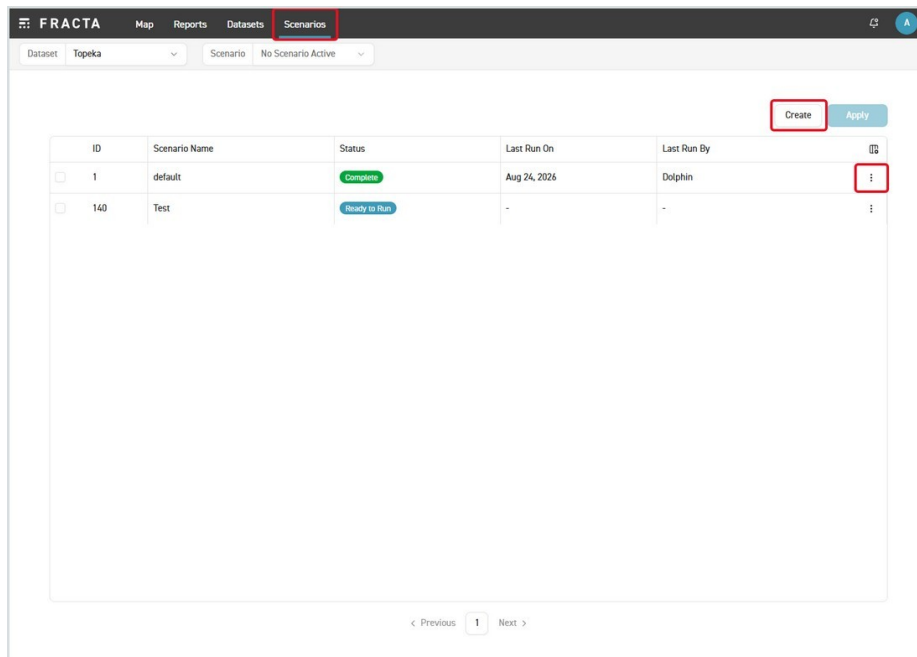


Figure 16. The Scenarios tab, listing existing scenarios and their run status.

5 Keyboard Shortcuts

The following shortcuts are available throughout the application.

Action	Windows	macOS
Select multiple assets on the map	CTRL + Click	⌘ + Click

6 Support

If you have questions about anything in this manual, or you need access to a feature that is not currently enabled for your account, contact your Fracta representative or reach our support team at contact@fracta.ai.

We update this manual as the application evolves. Please make sure you are working from the latest version before circulating it within your organization.



PREDICT · PRIORITIZE · PROTECT

Know where failure waits.

Fracta analyzes every drinking water main, gas main, and sewer main to calculate a precise Likelihood of Failure and Consequence of Failure — so utilities can prioritize replacements, stretch capital budgets, and justify decisions with data, not guesswork.

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