Creating diagrams

In this article

Create diagrams to convey information through charts and graphs

About creating diagrams

You can create diagrams in Markdown using three different syntaxes: mermaid, geoJSON and topoJSON, and ASCII STL. Diagram rendering is available in GitHub Issues, GitHub Discussions, pull requests, wikis, and Markdown files.

Creating Mermaid diagrams

Mermaid is a Markdown-inspired tool that renders text into diagrams. For example, Mermaid can render flow charts, sequence diagrams, pie charts and more. For more information, see the Mermaid documentation.

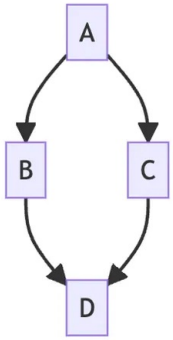
To create a Mermaid diagram, add Mermaid syntax inside a fenced code block with the `mermaid` language identifier. For more information about creating code blocks, see "Creating and highlighting code blocks."

For example, you can create a flow chart by specifying values and arrows.

````
Here is a simple flow chart:

```mermaid
graph TD;
    A-->B;
    A-->C;
    B-->D;
    C-->D;
```
````

Here is a simple flow chart:



Note: You may observe errors if you run a third-party Mermaid plugin when using Mermaid syntax on GitHub.

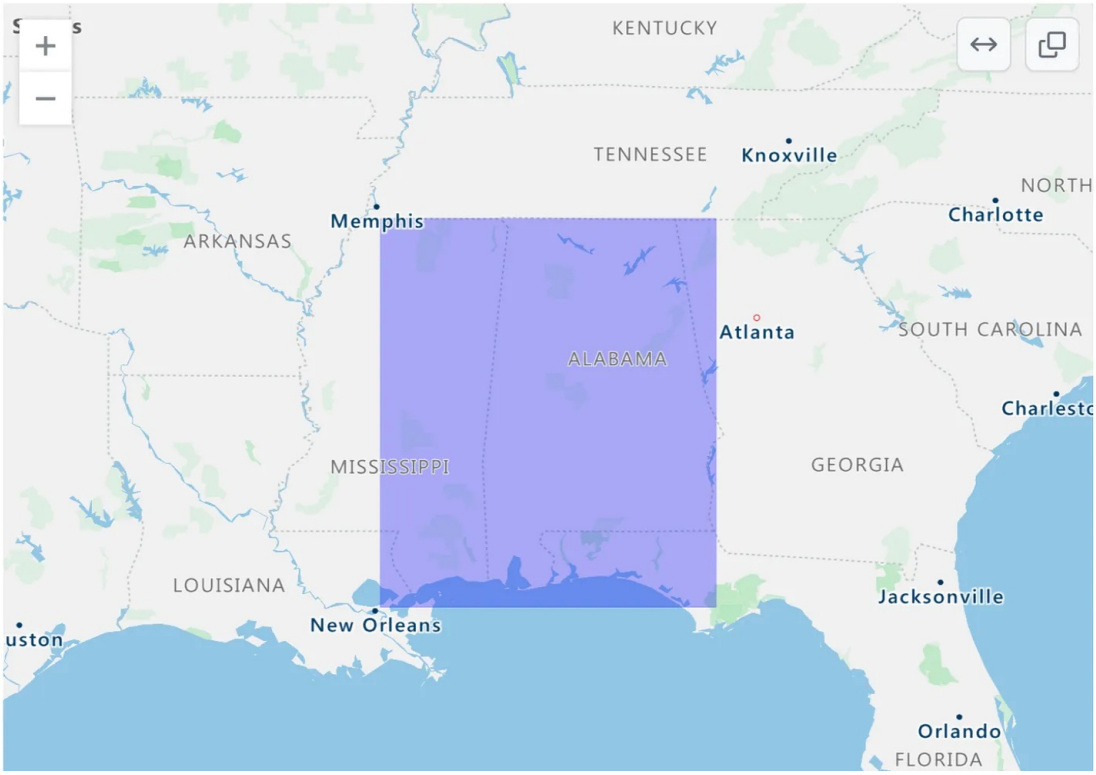
Creating GeoJSON and TopoJSON maps

You can use GeoJSON or TopoJSON syntax to create interactive maps. To create a map, add GeoJSON or TopoJSON inside a fenced code block with the `geojson` or `topojson` syntax identifier. For more information, see "Creating and highlighting code blocks."

Using GeoJSON

For example, you can create a map by specifying coordinates.

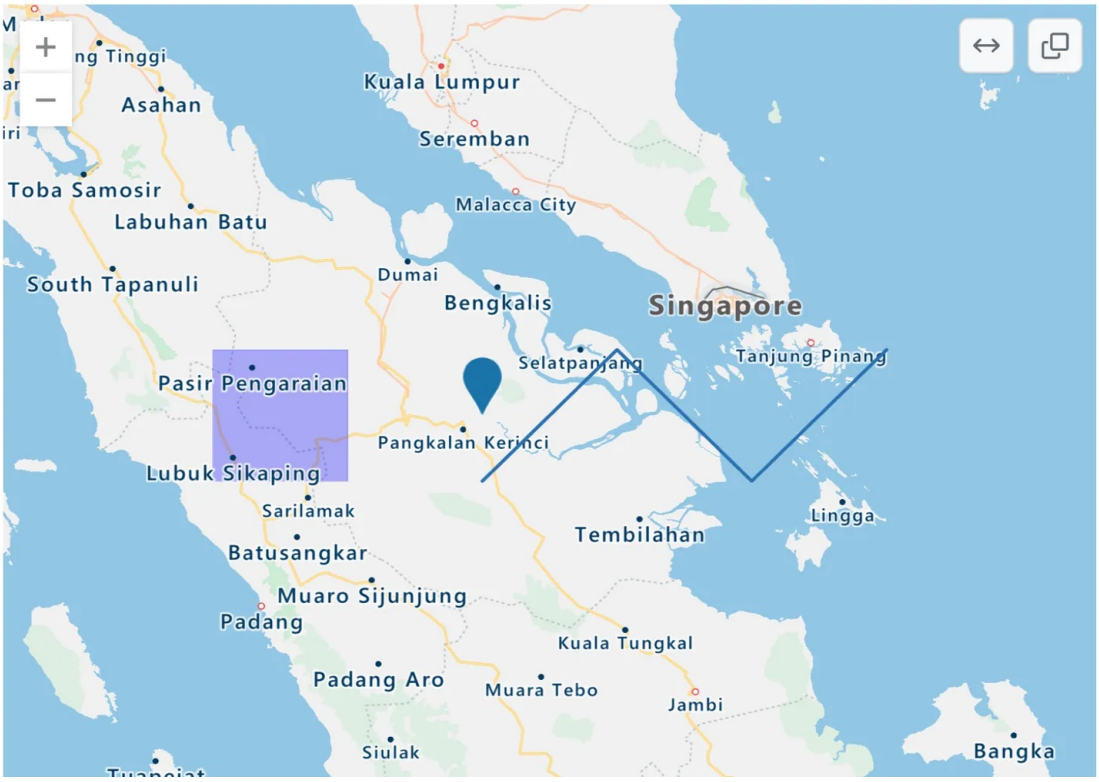
````
```geojson
{
  "type": "FeatureCollection",
  "features": [
    {
      "type": "Feature",
      "id": 1,
      "properties": {
        "ID": 0
      },
      "geometry": {
        "type": "Polygon",
        "coordinates": [
          [
              [-90,35],
              [-90,30],
              [-85,30],
              [-85,35],
              [-90,35]
          ]
        ]
      }
    }
  ]
}
```
````



Using TopoJSON

For example, you can create a TopoJSON map by specifying coordinates and shapes.

```topojson
{
  "type": "Topology",
  "transform": {
    "scale": [0.0005000500050005, 0.00010001000100010001],
    "translate": [100, 0]
  },
  "objects": {
    "example": {
      "type": "GeometryCollection",
      "geometries": [
        {
          "type": "Point",
          "properties": {"prop0": "value0"},
          "coordinates": [4000, 5000]
        },
        {
          "type": "LineString",
          "properties": {"prop0": "value0", "prop1": 0},
          "arcs": [0]
        },
        {
          "type": "Polygon",
          "properties": {"prop0": "value0",
            "prop1": {"this": "that"}
          },
          "arcs": [[1]]
        }
      ]
    }
  },
  "arcs": [[[4000, 0], [1999, 9999], [2000, -9999], [2000, 9999]],[[0, 0], [0, 9999]
}
```



For more information on working with `.geojson` and `.topojson` files, see "Working with non-code files."

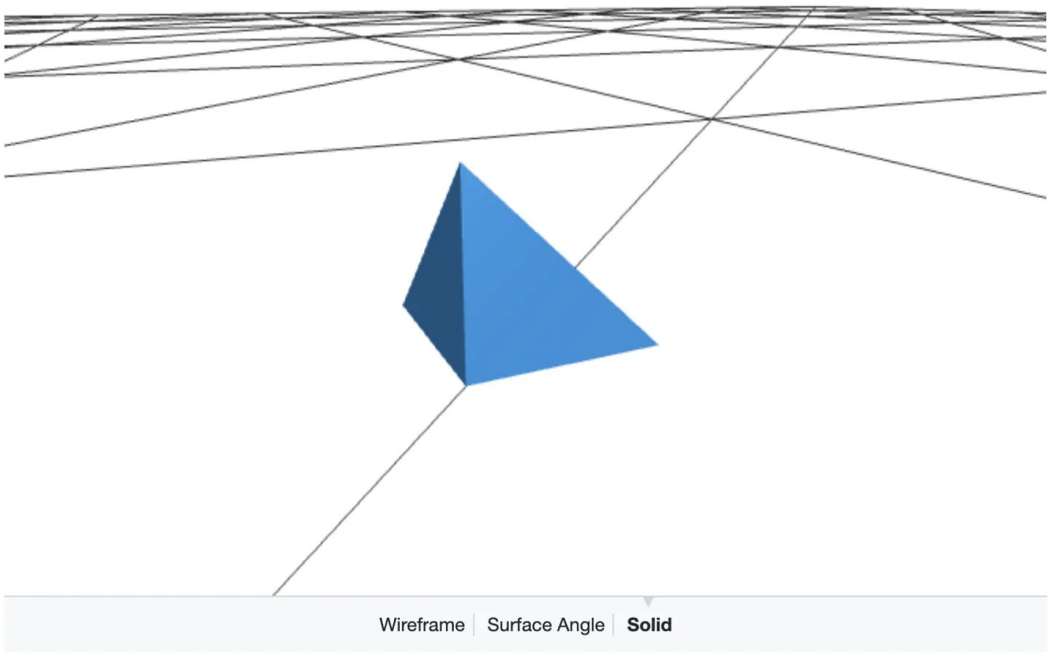
Creating STL 3D models

You can use ASCII STL syntax directly in markdown to create interactive 3D models. To display a model, add ASCII STL syntax inside a fenced code block with the `stl` syntax identifier. For more information, see "Creating and highlighting code blocks."

For example, you can create a simple 3D model:

````
```stl
solid cube_corner
  facet normal 0.0 -1.0 0.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 1.0 0.0 0.0
      vertex 0.0 0.0 1.0
    endloop
  endfacet
  facet normal 0.0 0.0 -1.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 0.0 1.0 0.0
      vertex 1.0 0.0 0.0
    endloop
  endfacet
  facet normal -1.0 0.0 0.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 0.0 0.0 1.0
      vertex 0.0 1.0 0.0
    endloop
  endfacet
  facet normal 0.577 0.577 0.577
    outer loop
      vertex 1.0 0.0 0.0
      vertex 0.0 1.0 0.0
      vertex 0.0 0.0 1.0
    endloop
  endfacet
```
````

```
endsolid
```



For more information on working with `.stl` files, see "Working with non-code files."