# Weather Company Data - Severe Weather  |  HailZone - v2
Domain Portfolio: Weather Imagery  |  Domain: Radar Derived  |  API Name: HailZone - v2

> Standard HTTP Cache-Control headers are used to define caching length. The TTL value is provided in the HTTP Header as an absolute time value using the "Expires" parameter. Example: "Expires: Fri, 12 Jul 2013 12:00:00 GMT".

**Geography:** U.S., Canada, Australia          **Attribution Required:** NO          **Attribution Requirements:** N/A

## Overview

The 'Tiler', and 'Featurizer' products support data visualization and analytics.

- Tiler provides gridded raster data, typically in tiles of 256x256 pixels at various levels of detail; a client-side SDK can use this data to create weather image tiles
- Featurizer provides geometric vector data, either a line or a polygon, indicating where meteorological values cross a particular threshold; this data can facilitate statistical analysis
- For additional details about Tiler and Featurizer please see the [Weather Company Data | Common Usage Guide - Data Visualization - Weather Imagery](#)
  - [https://goo.gl/woyGz9](https://goo.gl/woyGz9)

Using the Tiler and Featurizer products require a multi-step workflow to retrieve the necessary data for the specific product data request. Steps 2a, and 2b are dependent on which type you are requesting (i.e. Tiler Data or Featurizer Tile. Both step 2a, and step 2b require the **'t'** parameter values as input into the **'t'** parameter for the subsequent request (v2/tiler/data, and v2/featurizer/tile).

- **Step 1:** Get Tiler Info - Provides current dimensions **'t'** and **'rt'** parameter values on one or more products.
- **Step 2a:** Get Tiler Data - Provides tiles of meteorological data from one or more products.
- **Step 2b:** Get Featurizer Tile - Provides a polygon or line indicating when a product's data has crossed a given threshold, in web-mercator projection.

## URL Construction

| Step 1: Get Tiler Info |
| --- |
| **Tiler Info: Required Parameters:  products,** apiKey=**yourApiKey  ||  Optional Parameters:** meta=true<br>https://api.weather.com/v2/tiler/info?products=**\<productNumber\>:\<variableID\>**&**apiKey=yourApiKey** |
| The [**v2/tiler/info?**] request response provides the **'t'** parameter value required as input for the subsequent [**v2/tiler/data?**] request as well as a subsequent [**v2/featurizer/tile?**] request.<br>If the product is an 'Observation/Current Condition' type then it will return a **'t'** parameter value; if the product is a 'Forecast' type then it will return both a **'t'** parameter value and **'rt'** parameter value.<br>   • Note: some exceptions may apply to the use of the **'t'** parameter value and **'rt'** parameter values; please see product specific details for all product specific required and optional parameters. |
| https://api.weather.com/v2/tiler/info?products=326:MESHTrack030min&meta=true&apiKey=yourApiKey |
| **Step 2a: Get Tiler Data** |
| **Tiler Data - Forecast: Required Parameters:  products, rt, t, lod, x, y,** apiKey=**yourApiKey**<br>https://api.weather.com/v2/tiler/data?products=**\<productNumber\>:\<variableID\>**&rt=**\<rt\>**&t=**\<t\>**&lod=**\<lod\>**&x=**\<x\>**&y=**\<y\>**&**apiKey=yourApiKey** |
| https://api.weather.com/v2/tiler/data?products=326:MESHTrack030min&rt=**1474375500000**&t=**1474400700000**&lod=1&x=0&y=0&apiKey=yourApiKey |
| **Step 2b: Get Featurizer Tile** |

| **Featurizer Tile - Forecast: Required Parameters: product, rt, t, lod, x, y,** apiKey=**yourApiKey** \|\| **Optional Parameters:** threshold |
| --- |
| https://api.weather.com/v2/featurizer/tile?product=**<productNumber>:<variableID>**&rt=**<rt>**&t=**<t>**&lod=**<lod>**&x=**<x>**&y=**<y>**&apiKey=**yourApiKey** |
| https://api.weather.com/v2/featurizer/tile?product=326:MESHTrack030min&rt=**1474375500000**&t=**1474400700000**&lod=1&x=0&y=0&threshold=3&apiKey=yourApiKey |
| **Featurizer Feature (Native Resolution) - Forecast: Required Parameters: product, rt, t,** apiKey=**yourApiKey** \|\| **Optional Parameters:** threshold |
| https://api.weather.com/v2featurizer/feature?product=**<productNumber>:<variableID>**&rt=**<rt>**&t=**<t>**&apiKey=**yourApiKey** |
| https://api.weather.com/v2/featurizer/feature?product=326:MESHTrack030min&rt=**1474375500000**&t=**1474400700000**&threshold=3&apiKey=yourApiKey |

## Product Elements & Definitions

| Product Name | Product Number | Variable ID | Reasonable Threshold |
| --- | --- | --- | --- |
| Radar Derived 30-Minute HailZone United States | 326 | MESHTrack030min | 3 |
| Radar Derived: Aggregate maximum hail size in millimeters (mm) for the contiguous United States, forecast for the 30-minute window following the data's process time: 1-km resolution, refreshed every 5 minutes. | | | |
| Radar Derived 30-Minute HailZone Canada | 410 | MESHTrack030min | 3 |
| Radar Derived: High Quality NOWRad hail forecast, for the Maximum Estimated Size of Hail (MESH) in millimeters (mm), in Global Radar Tile 1, which includes the portions of southern Canada that has radar coverage; the MESH data is limited to areas covered by the Environment Canada radar network; forecast for the 30-minute window following the data's process time: 1-km resolution, refreshed every 2 minutes | | | |
| Radar Derived 30-Minute HailZone Australia | australianHailMesh | MESHTrack030min | 3 |
| Radar Derived: High Quality NOWRad hail forecast, for the Maximum Estimated Size of Hail (MESH) in millimeters (mm), for Australia; the MESH data is limited to areas covered by the Australia Bureau of Meteorology radar network; forecast for the 30-minute window following the data's process time: 1-km resolution, refreshed every 5 minutes | | | |