



Weather Company Data - Severe Weather | ShearVision - v2

Domain Portfolio: Weather Imagery | Domain: Radar Derived | API Name: ShearVision - 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. CONUS and Canada **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](#)

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 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. 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. • 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=329:MaxAzShear02kmAGLsmoothed60min&meta=true&apiKey=yourApiKey
Step 2a: Get Tiler Data
Tiler Data - Observations: Required Parameters: products, t, lod, x, y, apiKey=yourApiKey https://api.weather.com/v2/tiler/data?products=<productNumber>:<variableID>&t=<t>&lod=<lod>&x=<x>&y=<y>&apiKey=yourApiKey
https://api.weather.com/v2/tiler/data?products=329:MaxAzShear02kmAGLsmoothed60min&t=1474300200000&lod=-1&x=0&y=0&apiKey=yourApiKey
Step 2b: Get Featurizer Tile

Featurizer Tile - Observations: Required Parameters: product, t, lod, x, y, apiKey=yourApiKey Optional Parameters: threshold https://api.weather.com/v2/featurizer/tile?product=<productNumber>:<variableID>&t=<t>&lod=<lod>&x=<x>&y=<y>&apiKey=yourApiKey
https://api.weather.com/v2/featurizer/tile?product=329:MaxAzShear02kmAGLsmoothed60min&t=1474300200000&lod=1&x=0&y=0&threshold=0.005&apiKey=yourApiKey
Featurizer Feature (Native Resolution) - Observations: Required Parameters: product, t, apiKey=yourApiKey Optional Parameters: threshold https://api.weather.com/v2/featurizer/feature?product=<productNumber>:<variableID>&t=<t>&apiKey=yourApiKey
https://api.weather.com/v2/featurizer/feature?product=329:MaxAzShear02kmAGLsmoothed60min&t=1474300200000&threshold=0.005&apiKey=yourApiKey

Product Elements & Definitions

Product Name	Product Number	Variable ID	Reasonable Threshold
Radar Derived ShearVision	329	MaxAzShear02kmAGLsmoothed60min	0.005
Radar Derived: Rotational shear in hertz (Hz = 1/s) for the atmosphere's lowest 2 kilometers, for the contiguous United States and Canada: 1-km resolution, refreshed every 2 to 4 minutes.			