

Property Analytics - Enterprise

AI is only as useful as the data it has access to. Athenium broke that barrier, and made its industry-leading historical weather and severe event data accessible to any AI system through MCP. The datasets selected are designed to support deep queries for individual properties and analysis of complete portfolios or areas of interest, covering all aspects of weather history, severe event occurrences, and analysis of short- and long-term trends & going forward risks. For each location the data also includes current property descriptions such as elevation and distance to water and fire stations, to structure age, type and replacement cost. This Connector brings a world of precise, reliable, consistent, localized weather and risk data to your AI tool. It also includes an Expert Layer which understands the meaning of each meteorological variable and is trained on the type of queries expected for this type of analysis and reporting. This Expert Layer will continue to get smarter with use.

Athenium Weather, Climate & Property Data Included: *[See attached for details on each of these data sets]*

- **Core Global Weather** – Deep global hourly historical & 7-day hourly forecasts.
- **Enhanced Global Precipitation** – Global high-resolution precipitation.
- **U.S. Severe Event Historical Forensics** – Precise, high-resolution details of extreme events.
- **Global Trends, Risk & Property Specs** – Precision localized long and short-term trending, In-depth statistics and analytics for hazard exposure, and property profile & building structural details.

Sample Weather Variables:

Below is a sampling of the types of variables that may be most applicable to real estate and property queries. They are presented here to give the user a sense of the depth and breadth of reporting and analysis possible. The datasets contain well over 200 specific weather variables detailing all aspects of weather and ground conditions. All of these variables are understood by the imbedded expert layer which works with your AI tool, allowing you to ask for what you need in your own words and iterate as you see fit.

- Temperature and specialized temperature variables, such as wind chill temperature, dewpoint temperature, apparent temperature, minimum & maximum instantaneous temperature
- Visibility and cloud cover variables, such as fractional coverage at various heights, visibility & cloud base height

- Wind and humidity variables, such as sustained winds, gusting winds, wind direction, relative humidity, specific humidity & air density
- Precipitation variables including rain, freezing rain, sleet & snow
- Surface composition variables such as soil temperature & moisture at various depths, snow depth, snow melt, and ice cover
- High resolution hourly severe event data for temperature, hail, sustained wind, wind gusts, rainfall, snowfall, and freezing rain

Additional Trend Variables

- Daily - minimum, maximum, & average for all of the above variables.
- Monthly - all daily variables plus: total wet days, heavy precipitation days, snow & heavy snow days, frost free days, & growing days.
- Annual - all monthly plus: last spring & first autumn frost date, frost free season. days, first spring & last autumn growing date, & growing season days.

Additional Property Data and Risk Intelligence

- Localized severe event risk analysis for hail, ice & winter storm, intense rainfall, flash & river flood, hurricane wind & surge, straight-line wind, tornado, and wildfire.
- Property land profiles including land type, vegetation, elevation proximity to water and fire stations
- Structure-level information about all residential, commercial and industrial buildings within the U.S. with proprietary replacement cost values.

Leveraging the Expert Layer:

All of these variables are understood by the imbedded Expert Layer, allowing users to extract information in their own words and enable smart, AI-driven results and follow-up queries. Further, users may leverage the expert layer to configure templates of targeted profiles and other patterns of interest for repeat queries. The Expert knows which of our datasets to engage for any analysis, reducing AI searching cycles to a minimum.

Properties and portfolios can now be immediately & intelligently investigated anywhere in the world with a simple ask.