

# Package: addPmData (via r-universe)

September 2, 2024

**Title** Add PM Estimates to Geocoded Data Based on H3 Geohash

**Version** 0.1.1

**Description** The addPmData package converts latitude and longitude to h3 geohash, and downloads data from an online repository based on that geohash. Data is stored as ``chunk" files based on h3 geohash and year to prevent the user from downloading large amounts of unneeded data. Daily PM data is then joined to the user's input data based on geohash and date.

**License** GPL (>= 3)

**Encoding** UTF-8

**LazyData** true

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.1.1

**Imports** cli (>= 2.3.1), data.table (>= 1.14.0), dht (>= 1.0.3), dplyr (>= 1.0.5), fst (>= 0.9.4), glue (>= 1.4.2), h3jsr (>= 1.2.1), lubridate (>= 1.7.9.2), magrittr, progressr (>= 0.7.0), purrr (>= 0.3.4), s3 (>= 0.3.1), stringr (>= 1.4.0), tidyr (>= 1.1.3)

**Remotes** degauss-org/dht, geomarker-io/s3, obrl-soil/h3jsr

**Suggests** tibble (>= 3.1.0), testthat (>= 3.0.0), withr

**Config/testthat/edition** 3

**Depends** R (>= 2.10)

**Repository** <https://geomarker-io.r-universe.dev>

**RemoteUrl** <https://github.com/geomarker-io/addPmData>

**RemoteRef** HEAD

**RemoteSha** a136308ab9f901d1d3109904b1d67ef633778d40

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add_pm	<i>add PM2.5 concentrations to geocoded data based on h3 geohash or lat/lon coords</i>
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### Description

add PM2.5 concentrations to geocoded data based on h3 geohash or lat/lon coords

### Usage

```
add_pm(d, type = "coords", verbose = FALSE, ...)
```

### Arguments

d	dataframe with columns called "lat", "lon", "start_date" and "end_date"
type	either "coords" (if d contains lat/lon) or "h3" (if d contains resolution 8 h3 ids)
verbose	if TRUE a statement is printed to the console telling the user which chunk file is currently being processed. Defaults to FALSE.
...	arguments passed to <a href="#">s3_get_files</a>

### Value

the input dataframe, expanded to include one row per day between the given "start\_date" and "end\_date", with appended columns for h3\_3 (resolution 3), h3 (resolution 8), year, pm\_pred, and pm\_se.

### Examples

```
d <- tibble::tribble(
  ~id, ~lat, ~lon, ~start_date, ~end_date,
  "55000100280", 39.2, -84.6, "2008-09-09", "2008-09-11",
  "55000100281", 39.2, -84.6, "2007-08-05", "2007-08-08",
  "55000100282", 39.2, -84.6, "2015-08-31", "2015-09-02"
)

add_pm(d)
```

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