# Speedwell Weather   DATA SERVICES

Speedwell is a leading supplier of historical and real-time weather data for thousands of sites around the globe. Our data originates from a range of national meteorological services, supplied under data supply agreements and from carefully selected public sources . We are a single-point of contact and supply for weather data in the energy, commodity, insurance and weather derivative markets as well as academic and public users.

Full inventory of over **10,000** data sets with breakdown by weather variable available online at:
http://www.speedwellweather.com
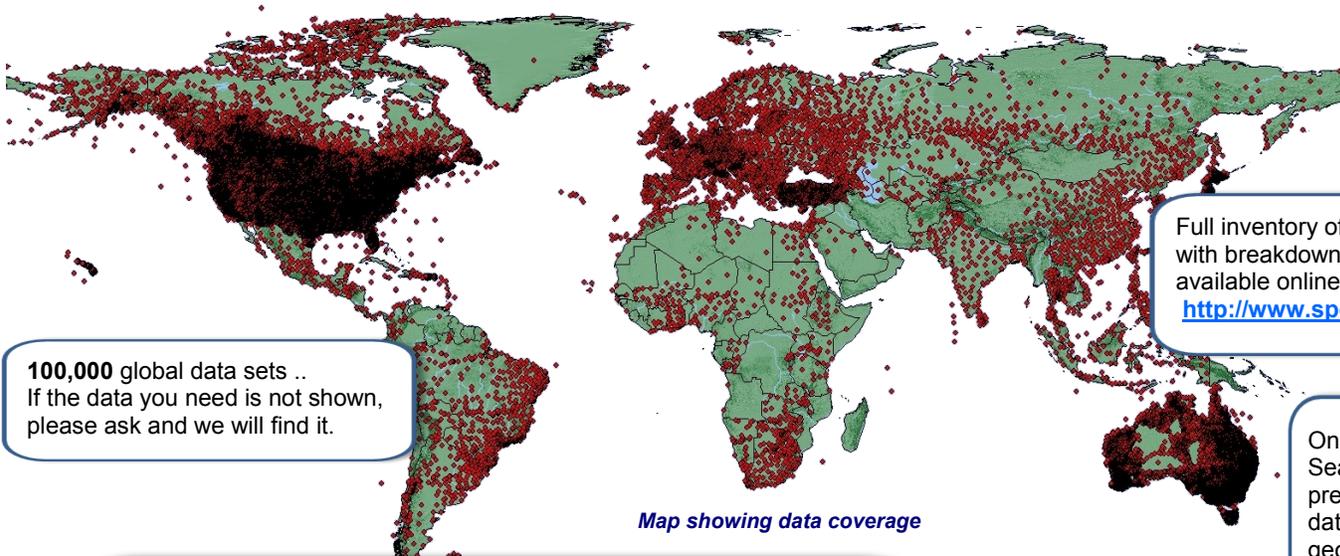
100,000 global data sets ..
If the data you need is not shown, please ask and we will find it.

Map showing data coverage

Online data inventory tool. Search for stations via predefined data packs, data quality or by geographical search...

The SuperPack

One contract, one charge covers all...Under a **single contract** and for a **single annual fee** this is a licence for corporate-wide access to our archives of worldwide hourly and daily historical weather data and feeds - including cleaned data sets.

The weather sites and variables available through SuperPack grow continuously: as other SuperPack subscribers request new data sets that are not already in our "ready to go" catalogue so that catalogue grows. We carry data for over **100,000** worldwide data sets. With very few exceptions these are all within the scope of SuperPack. This service offers a dramatic simplification of the financial and legal admin involved in data provision.

- **Historical data / real-time updates**
- **Temperature, precipitation, wind, solar, RH, snowfall, visibility,…**
- **Daily observations / hourly observations and sub hourly**
- **Over 2000 cleaned data sets and feeds available**
- **On-line inventory www.SpeedwellWeather.com**

Data Packs and Individual Stations

Data sets are sold for individual sites or as packs of sites. We offer industry specific packages agriculture, energy, and weather risk markets. For example:

Agriculture: Brazil coffee, U.S. cotton, China cotton, US Soybeans...
Energy: U.S. Weighted Degree Days, TX wind, German solar, Chilean hydropower,...
Weather Risk: CME-quoted weather derivative sites, Recalibrated data,...
Regional: European 300 site hourly data pack, US Primary pack...

Data coverage can be viewed here: **http://www.speedwellweather.com**

Texas Wind

Power Weather

Natural Gas

European Weather

Agriculture

Hydropower

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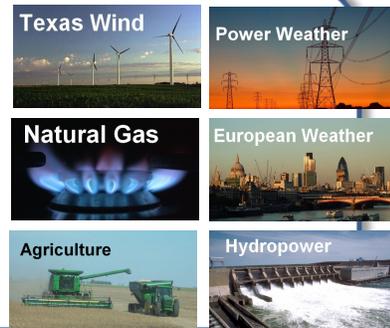
About Data Cleaning

Meteorological data often has spurious values or missing data points. We believe quality weather data is important and therefore we believe that data cleaning is a very serious business. Our pedigree is defined by the responsibilities of providing weather data for the pricing and settlement of financial market transactions over the last decade-i.e. weather insurance and weather derivatives.

Our cleaning techniques build on a very substantial software infrastructure which, in turn, uses a database storing data for over 100,000 worldwide weather reference sites. Our tools alert us to improbable values by the use of methods including proxy testing, analysis of hourly reports and satellite imagery. However, we believe weather data cleaning can never, and should never, be fully automated. Our data cleaning processes are always manually overseen by trained meteorologists.

Hourly Average Temperature Data (Climatology)

Many clients approach us to buy hourly data which they use to calculate an average value for each hour for each day of the year. This is something we can provide saving the costs of buying and handling large hourly data sets. The output is a file with 24 *366 data points and can be delivered by FTP or by email. This can be provided for any variable for any site for which we carry hourly data. The average can be calculated with or without kernel smoothing. The average can be based on any period with 10 years being the most requested. We carry historic hourly data for many thousands of sites in Europe, Australia, Asia and the Americas.

Data Applications

Historical Data Warehouse
Let us manage your data sets for you: once subscribed to our historical data and updates you can download them from our database directly when it suits you.

Weather Statistics Extractor
Calculate and export weekly or monthly statistics such as cumulative temperature, HDDs, CDDs.

Analogue Years
View the evolution of a weather index relative to other chosen historical periods to see what happened next.

Actuals Vs Climatology
Tabular or graphical view of any weather variable relative to climate normals for any period.

Weather Analytics
The Speedwell weather analytics tool presents weather data summaries for retailers and energy companies.

Recalibrated Data

Recalibrated Data Sets rebase historical data to current observation conditions by adjusting for discontinuities. Trends are not removed.

Typical causes of discontinuities include:
- Station moves
- Equipment changes
- Equipment failure
- Changes to the immediate environment
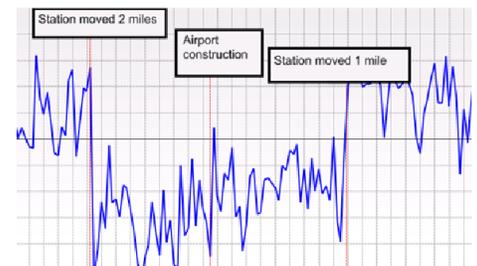
We offer two products:

"Light Recalibration" - A cleaned time series, with the largest discontinuities (>2F) removed. Provided with a web-delivered monitor showing the performance of the site versus its proxies on a weekly basis.

Full Recalibration - A detailed analysis of metadata and the site-to-proxies relationship to correct for ***all*** material discontinuities (>0.5). Delivered as a time-series with supporting documentation, metadata review, monthly update, and web-delivered real-time monitors allowing subscribers to see current behaviour.