

Air STANDARD FOR ACCREDITED DATA PROVIDERS v2.1

RESET Air STANDARD for Accredited Data Providers DRAFT v2.1_230830



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2.8.0 Preface

The **RESET** Air Standard is a continuous monitoring and reporting standard for indoor air quality, requiring software to organize the data collected from monitors in projects. Projects pursuing the **RESET Air Standard**, or **RESET Air Projects**, require the collection of large amounts of data, therefore, data quality and reliability are of critical importance.

The data provider software is required to be accredited to be used in **RESET Air Projects**.

The intent of the **RESET** Air Standard for Accredited Data Providers is to:

- Standardize data requirements for **RESET Air Projects**
- Specify data structure and connectivity requirements between a RESET Accredited Data Provider and the **RESET Cloud**.
- Incentivize transparency by specifying the display and communication of the data to the occupants of RESET Projects.



2.8.1 Introduction

The RESET Air Standards, including both the RESET Air Standard for Interiors and RESET Air Standard for Core & Shell, require air quality monitoring data to be collected and reported to the RESET Cloud for all RESET Air Projects.

A **RESET** Air Accredited Data Provider is a verified and accredited data aggregator software that continuously collects, compiles, and transfers the data collected from air quality monitors to the **RESET Cloud** for data auditing and certification of RESET Air Projects pursuing RESET Air Project Certification. RESET Air Accredited Data **Providers** are required in **RESET** Air Projects.

The **RESET Air Standard for Accredited Data Providers** defines the following:

- Data Permissions & Transparency Establishes the permissions and transparency requirements for data collected by the data provider.
- Data & API Requirements Establishes the data & API requirements for connecting to the RESET Cloud.
- Display & Communication Establishes requirements around how data is displayed and communicated to occupants in a project.

2.8.1.1 Purpose and Approach

The purpose of the **RESET Air Standard for Accredited Data Providers** is to establish the connectivity and data requirements expected from data provider software used in **RESET Air Projects**.

The approach of the **RESET** Air Standard for Data Providers targets:

– Data Reporting

Data Providers are in charge of collecting and compiling the data from air quality monitors to be reported to the **RESET Cloud** for auditing. Without data providers, there is no data to be audited, therefore, data providers are absolutely critical to all **RESET Air Projects**.





2.8.1.2 Typologies and Usage

The **RESET** Air Standard consists of standards for two typologies:

- RESET Air Standard for Interiors Interiors targets and measures the air quality performance of air breathed by the occupants in an interior space. Requires monitors to be installed in the breathing zone.
- RESET Air Standard for Core & Shell Core & Shell targets and measures the quality performance of the air being delivered to tenants and public spaces by the building's central mechanical air and HVAC systems. Requires monitors to be installed in the air ducts.

The built environment requires constant maintenance and upkeep. This requires collaboration between what are often disparate parties: the tenant and the landlord. The **RESET** Air Standard helps facilitate communication between the tenant and landlord by identifying their respective areas of responsibility.

Both typologies leverage indoor air quality monitors to:

- Monitor the actual performance of the building
- Automate HVAC systems to optimize occupant health and energy efficiency
- Perform gap analysis for troubleshooting and remediation

2.8.2 Data Provider Requirements (1/2)

RESET Accredited Data Providers play a fundamental role and are required in all **RESET Air Projects** as the software layer that handles the collection and compiling of data from **RESET Air Accredited Monitors**.

Apart from data collection, **RESET Accredited Data Providers** are also often designed to be used for daily operations in automation and reporting based on business logic and requirements.

For certification, summary data must be automatically compiled and sent daily to the **RESET Cloud** for auditing and verification by **RESET Accredited Data Providers**.

The following pages describe the requirements for **RESET Accredited Data Providers**.

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Diagram showing how data is organized for RESET Air Projects.

2.8.2 Data Provider Requirements (2/2)

The basic requirement for every **RESET Accredited Data Provider** is that it must be connected to the **RESET Cloud** for the purpose of certification for **RESET Air Projects**.

The basic requirements can be summarized as the following:

Data Permissions & Transparency

- 1. The data provider is allowing **RESET** to use the data for analysis and for project clients to download.
- 2. The data provider promises transparency and that the data is free from any form of tampering.

Data & API Requirements

- 3. The data provider is connected to the **RESET Cloud** via API.
- The data provided by the data provider is packaged into 30-minute averages and connected to the RESET 4. Cloud via API.

Display & Communication

5. The data provider demonstrates a way for users to view the data.

2.8.2.1 Data Permissions & Transparency

RESET Accredited Data Providers agree to the data permissions and transparency requirements below:

1. The data provider is allowing **RESET** to use the data for analysis and for clients to download. The data provider promises transparency and that the data is free from any form of tampering.

The first requirement is necessary because data collected from a project is pushed from the data provider to the **RESET Cloud** for auditing. Permission must be given to allow for data analysis of the project according to the **RESET Air Standard** and made available for clients to download.

The second requirement is necessary to prevent the falsifying of data, which can be easily done. A contractual promise not to falsify and tamper with data is made, along with penalties, and System Audits (2.8.3.1) are available to check in on data providers.

Both requirements are written into a contract that will be signed between **RESET** and the **RESET** Accredited Data Provider.

2.8.2.2 Data & API Requirements (1/2)

The structure, resolution, and frequency in which data is transferred between the **RESET** Accredited Data **Provider** and the **RESET Cloud** are important to the consistency and quality of the data.

The **RESET Cloud** is utilized for project benchmarking, assessment, and determination of certification according to the **RESET** Air Standard. It does not require data more specific or up-to-date than described in this section.

The requirements for data transferred from an **RESET Accredited Data Provider** are described as follows:

- 1. Data Format Data is to be formatted in JSON. Refer to the API documents found at https://doc.reset.build/providers/v2/ for data format information.
- Data Resolution 2.

Data resolution shall be at 30 minutes (on the hour and the half-hour) per monitor. Each piece of data will be the average of the collected monitor data in those 30 minutes.

The 30-minute average resolution is required in order to establish occupancy hours on the RESET Cloud. Data collected at 30-minute intervals provides an allowance for occupancy hours to commence on the half hour.

2.8.2.2 Data & API Requirements (2/2)

- 3. Frequency of Data Transfer Data must be transferred from the **RESET Accredited Data Provider** to the **RESET Cloud**, at minimum, every 24 hours. Recommended, every 30 minutes.
 - The final frequency of data transfer will be confirmed between the **RESET Accredited Data Provider** and the **RESET Cloud**.

Specifics on the API can be found at: <u>https://doc.reset.build/providers/v2/</u>.

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2.8.2.3 Display and Communication

In order to qualify under the **RESET Air Standard**, live data from IAQ monitoring must be made available to all occupants of **RESET Air Projects**. A **RESET Accredited Data Provider** is responsible for proving that they can provide the resultant data in such a manner as to be conveniently transferred, easily extrapolated, and accurately interpreted by project teams.

1. Live Data Display in Public Spaces

Live data results are displayed and are easily viewed by all occupants of the participating **RESET** Air **Project**. The display must include all parameters as outlined in the **RESET** Air Standard for which the project is certified.

2. Accessible Live Data

Live data results are accessible via a website and/or application (App). Access to the website or App must be made available for viewing to all **RESET** Air **Project** occupants when they are within the project boundary. The website and/or App must include all parameters as outlined in the RESET Air Standard for which the project is certified.



2.8.3 Accreditation Requirements and Process

To become a **RESET Accredited Data Provider**, documentation must be submitted for transparency purposes and all data requirements must be fulfilled.

For more information and instructions on the process, please refer to the **RESET website**: https://reset.build/programs/dataproviders/process

Accreditation Upon accreditation, **RESET Accredited Data Providers** will be showcased in the **RESET Directory** (<u>https://</u> reset.build/directory/dataproviders), inclusive of accreditation details, contact information, and links.

Maintaining Accreditation Once accredited, there will be an annual maintenance and support fee.

If payment is not made, the data provider will lose its accreditation status. Data Providers that are not **RESET** Accredited Data Providers cannot be used for future RESET Projects until accredited again, but can continue to power **RESET Projects** that are already using them.



2.8.3.1 System Audits

To guarantee data quality and that the data coming from the RESET Accredited Data Provider is not tampered with or augmented, system audits can be arranged between **RESET** and a **RESET** Accredited Data Provider.

The system audit will consist of random queries for data. This includes the ability to request raw data at the point of acquisition, reception, and distribution to ensure that the data received is the same as what is delivered by the accredited monitors.





2.8.4 Trust & Transparency Score

The Trust & Transparency Score, also known as the TT Score, is a method to display trust and transparency details that go beyond the basic requirements of accreditation and certification.

The **RESET Accredited Data Provider TT Score** does not affect the accreditation and is used to incentivize projects to go above and beyond the base requirements. It also plays a big role in Alternative Pathways.

The **RESET Accredited Data Provider** will be updated once a year. Historical scoring methodologies will always be available for viewing (once 2024 is released, the 2023 score will still be available for viewing).

Details about the **RESET Accredited Data Provider TT Score** can be found on the **RESET Website**: https://reset.build/programs/dataproviders/tts

The **RESET Accredited Data Provider TT Score** will be displayed in the **RESET Data Providers Directory**: https://reset.build/directory/dataproviders

2.8.5 Alternative Pathways

Alternative Pathways are alternative ways in which a data provider can achieve accreditation. It is designed to provide more flexibility around implementation.

Depending on the Alternative Pathway, it can limit the data provider's use in **RESET Air Projects** or affect the Trust & Transparency Score.

There are currently no established alternative pathways for **RESET Accredited Data Providers**.

Applying for New Alternative Pathways

To request an Alternative Pathway, an official way to apply is available with the following requirements:

- All Alternative Pathways must be backed by data
- All Alternative Pathways must provide a Case Study, which will include reasoning as to why it will work, the actual implementation used, the data collected, and a conclusion.
- The Alternative Pathway will be used in at least one pilot project.
- New Alternative Pathways will be reviewed and considered on a case-by-case basis.

2.8.6 Glossary (1/2)

The following glossary provides additional context or description of relevant terms and vocabulary.

a. **RESET Cloud**

is the cloud system used by RESET to process the data submitted by RESET Air Accredited Data Providers for the purposes of **RESET Certification**.

b. Application Protocol Interface (API)

is a set of routines, protocols, and tools for building software applications. An API specifies how software components should interact. Additionally, APIs are used when programming graphical user interface (GUI) components.

www.webopedia.com/TERM/A/API.html

Web Sockets C.

A Web Socket is an Application Protocol Interface (API) that makes it possible to open an interactive communication session between the user's browser and a server. A Web Socket makes it possible to send messages to a server and receive event-driven responses without having to poll the server for a reply. https://developer.mozilla.org/en-US/docs/Web/API/WebSockets_API



2.8.6 Glossary (2/2)

d. JSON (JavaScript Object Notation)

is a lightweight data interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. <u>www.json.org/</u>

Live Data е.

refers to data that is very recent and uploaded to the cloud for easy access. Live data can be minute-by-minute or up to hour-by-hour. For the purposes of the RESET Air Standards, the maximum time interval is hour-byhour.



End of **RESET Air STANDARD** for Accredited Data Providers



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