User Guide | PUBLIC
Document Version: 2206a – 2022-06-02

Data Ingestion Error Log

THE BEST RUN SAP

Content

1 Data Ingestion Error Log: Overview

A monitoring tool for checking the health status of sensor data processing

Overview

In the Internet of Things (IoT), it is typical that in many scenarios, very high amounts of data must be processed. This data is normally generated by different kinds of sensors attached to physical devices of all kinds of size as well as complexity. In these scenarios, system administrators must be aware that it is always possible that something goes wrong or doesn't work as expected, be it software, hardware, or both.

> **i** Note
>
> The Data Ingestion Error Log is focused on errors related to sensor data streams that are transmitted from the connected devices to the database. This means that an error can only be detected if a data transfer has taken place. In other words, if no data is transmitted at all (for example, because of a sensor malfunction), this problem goes unnoticed by the error log. To detect this kind of problem, you would have to extract the error log entries and feed them into a third-party analytics tool.

The Data Ingestion Error Log is a monitor that helps administrators to check whether everything is OK with the data generated by the sensors or if any errors have occurred. In case of errors, the error log is the single point of entry for an administrator to get informed about the situation and to take action to resolve the error situation.

> **i** Note
>
> Unlike the other apps that are part of SAP IoT, the Data Ingestion Error Log app is explicitly targeted at system administrators who are in charge of keeping the system in a healthy and stable condition. Therefore, depending on the type of launchpad that is active in your landscape, the tile for launching the Data Ingestion Error Log may not be present by default. If you encounter this situation but want to use the app, you need to configure your launchpad by adding the Data Ingestion Error Log tile to your personal launchpad. For more information on how to personalize the launchpad, see the SAP Fiori Launchpad - User Guide.

General Setup and Scope

The sheer amount of sensor data generated in IoT scenarios requires that the streams of incoming raw data can only be kept in the system for a limited amount of time. With regards to the Data Ingestion Error Log, this means that the data available for monitoring is automatically deleted from the system after seven days. Having this in mind, it's clear that the Data Ingestion Error Log is a tool that is focused on current, urgent system errors. It is **not** meant as a tool for system analytics that you would use for analyzing the system status over longer periods of time.

It is typical of IoT scenarios that if an error occurs you'll normally find that error occurring many, many times in the log. This is because it's the nature of these scenarios to transmit the same kind of data times and times again. So, if an error occurs, you will see that error as often as the system tries to transmit data. This situation can easily lead to an information overflow, which, at the same time, may potentially hide the occurrence of other singular occurrences of other errors in the same log (an effect known as the "needle in the haystack"). In such situations, the tool helps you to concentrate on what is important with the following filtering features:

- Defining *Time Period* Limitations: You can narrow down the number of errors shown in the log by limiting the period of time that is taken into account by the log. To accomplish this, the tool offers four predefined time frames from 15 minutes to six hours, counted backwards from the current system time. Should these predefined settings not be sufficient in a particular situation, you are also free to define your own custom time frame that the tool shall investigate (but still with a maximum of no more than six hours).
- Filtering by Error Category: In the *Category* selector, the tool lists all error categories that are present in the currently selected time frame of the error log. This makes It easy for you to detect that one "needle in the haystack" that is buried under hundreds or thousands occurrences of the same error that you are currently **not** interested in.
- Individual Filter Criteria: Independent of, or in addition to, the aforementioned filtering features, you can define an individual search string that shall be applied to the current selection of log entries. For example, you might know that a particular device tends to cause more data errors than the rest. In that case, you might enter the thing ID of the device in question into the *Search* field to verify whether the device works as expected.

Error Log Entry Details

The entry screen of the Data Ingestion Error Log app presents the complete list of errors that occurred during the selected time frame, but it is focused on only a small set of data fields that are actually available for each log entry. If you need to go into the details of a particular log entry, simply click the corresponding line in the error log. The system then navigates you to the *Error Log Details* screen, where you can gain access to the entire set of data that has been recorded for that error instance.

Related Information

Error Details [page 5]

2 Error Details

Overview of the complete data set recorded for a single error instance

Overview

Due to the sheer amount of data that the system collects in the error log, the entry screen with the complete list of error log entries can only present a small number of data fields per entry. In contrast to that, the *Error Log Details* screen gives you access to everything the system has recorded for one particular error instance.

Error Details

The data set recorded for a particular error instance comprises the following fields:

- *Time:* Date and time when the error occurred.
- *Category:* The errors that may occur during data ingestion are grouped by certain predefined categories. These categories serve the purpose of giving you a first rough estimate at which stage in the data ingestion process the error has occurred. The error category is also offered on the entry screen as a filter criterion to narrow down the number of log entries listed.
- *Message ID:* Technical ID of the error message. The ID consists of the following parts, separated by a dash ("/"):
  - Tenant ID
  - Sensor ID
  - Internal UUID of the sensor capability related to the failed data ingestion
- *Tenant:* Unique ID of the tenant that has been assigned to your company during the onboarding process.
- *Sensor ID:* Numeric ID of the sensor-equipped device for which the data ingestion failed.
- *Capability ID:* ID of the capability (e.g., read pressure data) to which the sensor belongs whose data couldn't be processed properly
- *Description:* Error message in natural language
- *Raw Data:* JSON data package that contains the identifying metadata of the error instance plus an array of sensor data that couldn't be processed properly

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

www.sap.com/contactsap

THE BEST RUN SAP