



**Mapistry Summit - September 2025**  
**Getting Started with Data Mapping to Automate Compliance Handout**

## Data Mapping → Automation Process

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### Step 1: Gather your Spreadsheet(s), identify & categorize inputs

- Highlight all input columns
- For each input: identify where the data comes from. If some data is brought over from another spreadsheet, identify where the original data is from.

Category	Definition	Example
Manual	Someone writes or types it in each time	Reading a meter, recording product usage in a paper form or spreadsheet
Upload	Received as or exported from another system/spreadsheet periodically	EDD lab results from a lab
API	Data already lives in another system; can connect directly	Flow meter, purchasing records, weather station

- Summarize your inputs in a table like the one below
  - **Input Needed:** the name of the input item
  - **Units:** what units is your input data in? (gallons, feet, pounds, etc)
  - **Frequency:** how often do you need this data sent to Mapistry? (ex: does your permit require daily or monthly records?)
  - **Data Source Category:** Manual, Upload, API
  - **System:** for API inputs - which source system the data is in
  - **System ID:** for API inputs - what the unique ID/tag for the input is in the source data system. If this is not already in your spreadsheet, leave blank at first and obtain the corresponding ID from IT

Input Needed	Units	Frequency	Data Source Category	System	System ID
Throughput	lbs	daily	API	SAP	T_5921A
Paint A Usage	gallons	daily	API	SAP	I_384987A
Paint B Usage	gallons	daily	API	SAP	I_58096B
Generator Runtime	hours	monthly	API	PI	GEN_19343
Solvent Usage	gallons	daily	Manual		



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#### **Step 2: Start the IT Conversation**

Reach out to your IT contact to review the data systems together and find the data you need. Fill out the **System ID** column together.

- "I have identified environmental data that I want to automate and sent to Mapistry via API. I have a list of the inputs I need and which systems they come from. I want to know what corresponding ID this item has in our system and make sure the data is available and in the format I need it. Do you have time to help me with this?"
- Share the table you created that summarizes the inputs. Go through the data systems together to identify the values you need. Make sure they are in the units you expect, the data looks accurate, and the data can be sent at the required frequency.
- Fill out the **System ID** column together and take any relevant notes
- "I will connect you with Mapistry who will give you API credentials and share more information."

Additional discussion topics:

- Timing - some IT teams are busy; when is a good time to set this up?
- How should the data be aggregated (if at all) before sending? (ex: max vs total)
- Share Mapistry's API [Documentation](#) and an [example](#), and [overview](#)

#### **Step 3: Loop in Mapistry (if you haven't already)**

- Let your Mapistry CSM know that you want to automate data for a Mapistry log (specify the data and log)
- Intro your IT team contact with Mapistry
- Mapistry will provide credentials for IT to set up API connection



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#### Step 4: Final API Connection

- With valid credentials, your IT team can fetch the corresponding Mapistry input IDs via the Public API. (Mapistry can also provide a table summarizing this information. See [Mapistry EDP ID Templates](#) below for more related info).
- They can then follow the process
- A table like this can be helpful to compile all relevant information in one place and track status:

Input Needed	Unit	Frequency	Data Source	System	System ID	Mapistry Log ID	Mapistry Field ID	Mapistry Resource ID	Data Connection Status
Throughput	lbs	daily	API	SAP	T_5921A	324sfsa9	igfdk7gf8sd		Data connected
Paint A	gals	daily	API	SAP	I_384987A	78asggds	gsd76sdf	87sfasg	Need to connect
Paint B	gals	daily	API	SAP	I_58096B	78asggds	gsd76sdf	237dgas	
Generator Runtime	hr	monthly	API	PI	GEN_19343	dfa982a	asg9rkxd9	gcxiuer89x	Need to connect
Solvent Usage	gals	daily	Manual						N/A

#### Common Final Checks:

To make sure data is connected and flowing as expected, check for each input:

1. Does IT have the internal system ID AND the corresponding Mapistry ID to map over?
2. Has IT mapped the data via Mapistry's API/is data flowing?
3. Has IT sent historic data (if needed)?
4. Is the data accurate?



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## **Supporting Information & References**

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### **Key Terms for Data Automation:**

What is an API?

- **Application Programming Interface:** A "bridge" that lets two software systems talk to each other.
- **Example:** Mapistry API lets your systems send air, water, or waste-related data directly into Mapistry without manual entry. Map equivalent data from your system to Mapistry's log in order to send

### **Common Systems You May Hear About**

- **Data Historian (e.g., AVEVA/PI):** Stores time-series process data (throughput, usage).
- **IoT Devices:** Sensors that automatically collect and transmit data (e.g., weather station, pH probe).
- **Scripts:** Custom code that automates tasks like pulling data daily from SAP or uploading CSV files.

### **API Data Methods Used with Mapistry**

- **GET** = Retrieve data (e.g., get daily flow rates from Mapistry).
- **POST** = Send new data; create new entry (e.g., send pH data to Mapistry)
- **DELETE** = delete data from Mapistry

### **Common Data Systems to do API connection:**

- Aviva
- PI
- SAP

### **Common Environmental Data Available to Automate:**

- Utility data (natural gas, electricity)
- Purchasing records/accounting data
- Flow meters
- Weather system
- Production data

### **Common Blockers:**

- Everyone's data is different! Not every system or process is set up to automate easily
  - On-premise only systems
  - Equipment that doesn't have a data historian
  - Data is only collected manually
- IT Teams can be busy or have limited resources
- Having data system data in the necessary units



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### Tips and Tricks

- Be persistent
- Keep asking for the source; if someone says they run a report → "where do you go to run that report? Can you show me the system?"
- If you want to find out if you can tie into a system, search "System name + API" if the vendor has an API that should make it infinitely easier to connect

### Related Information:

- [Mapistry's API Documentation](#) and an [example](#)
- [Overview of entering data via the API](#)
- Mapistry Summit - EDP Data Mapping - Sept 2025 slides (available post-summit)

### Mapistry EDP ID Templates:

Your IT team can fetch IDs for Mapistry's logs via the API. Mapistry can also provide tables with the IDs. A common way we structure these tables to send to IT teams is laid out below. We can then combine this information with the tables with your inputs/System IDs as illustrated in the example above (helpful to consolidate in one main request to IT when there are multiple logs/items to connect)

### Mapistry Log IDs Template:

Log Name/ID: Generator Runtime Log/dfa982a

Field Name	Field ID	Field Type	Additional Info
Generator	asfa9s8	resource	asdkjfsaj98sdfag0
Runtime	asg9rkxd9	number	hours
Comments	agdgj8s9esar	text	

### Mapistry Resource IDs Template:

Resource Name/ID: Generator Resource/asdkjfsaj98sdfag0

Resource	Resource ID	Site ID
Generator A	gcxiuer89x	sdfagfa899asdga