

EM 1: Display a Location

Exercise Use the Fiori Launchpad to display locations in Global Bike.

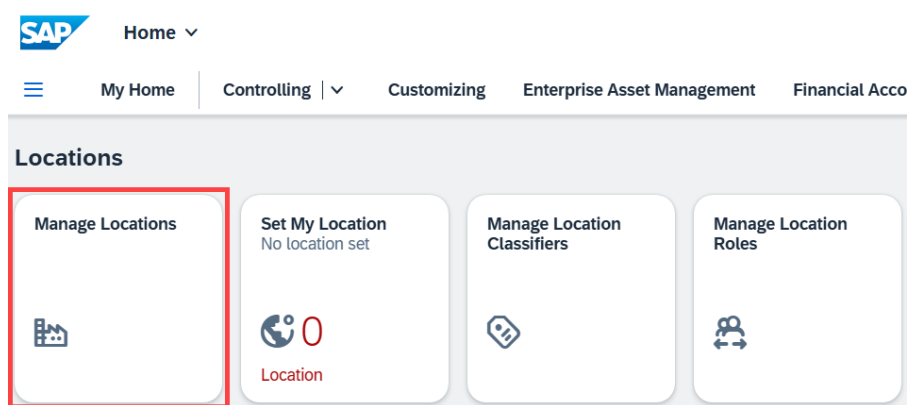
Time 10 min

Task Use the *Manage Locations* app to display the current location structure and a specific location (*Plant Dallas DL00*).

Name (Position) Alberto Conti, Technical Office Assistant, DC Miami

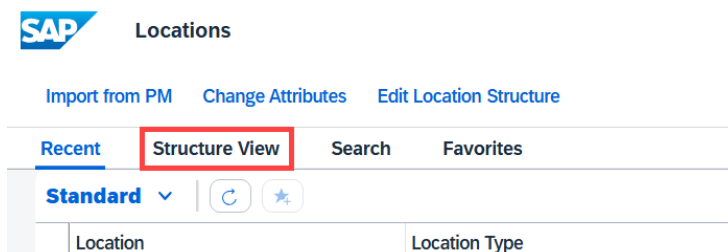
Please go to the *Environment Management* space. In the *Locations* section, start the *Manage Locations* app.

Start



A location is used to represent an identified real place, virtual space, or object in the system. The location is a central master data object that can be organized in a structure to represent where a location exists spatially or functionally in a company. Examples of a location are a plant, a piece of equipment, or a work center.

On the next screen, locations you have recently worked with are displayed. The first time you use this app the list is empty. In order to display the entire location structure of Global Bike, click *Structure View*.



Now expand the location hierarchy by clicking  in front of hierarchy elements of interest and take a closer look at Global Bike's location structure.

Recent

Structure View

Search

Favorites

Location Structure

Organizational Structure

Standard

My Location:

Show All Locations

Set as "My Location"

Display Safety-Relevant Information

Location	Location Type	Location Classifiers	Status	Technical Object
▼ All Locations				
▼ [0000] Global Bike Group GB00	Company		New	
▼ [1000] Global Bike Inc. US00	Company		New	
▼ [1100] Plant Dallas DL00	Plant		New	
▼ [1110] Assembly Line 1	Production Unit		New	
[1111] Compressor	Equipment		New	
> [1120] Assembly Line 2	Production Unit		New	
> [1130] Assembly Line 3	Production Unit		New	
> [1140] Warehouse	Building		New	
> [1150] General Admin...	Building		New	
> [1200] DC Miami MI00	Plant		New	
> [1300] DC San Diego SD...	Plant		New	

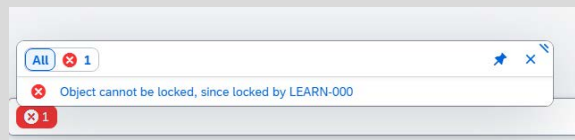
You see that every hierarchy element has its own unique ID in square brackets. These four-digit IDs represent the hierarchy level of their element. *[0000]* is the root element for the entire Global Bike group. *[1000]* represents the US subsidiary Global Bike Inc. *[1111]*, for example, defines a *compressor* located at the plant in Dallas on assembly line 1.

To get more information on a certain location you may click on it. Please choose **location [1100] Plant Dallas DL00**.

[1100] Plant Dallas
DL00

Note If you are prompted with the error message shown below, another user is accessing this location master record at the same time. Remember that all users in this SAP S/4HANA client are sharing the same business environment. Please acknowledge or ignore this message. The system will display the location master data without editing rights.

Parallel access



Now the system displays basic information of that location such as its *type*, *status*, *revision start date* or *organizational information*.

SAP Location: [1100] Plant Dallas DL00

Set Status ▾ Revision ▾ Delete Add to Favorites You can also ▾

Location ID: 3 Location Type: Plant Revision: Initial Creation (01/01/2023 to 12/31/9999) Status ▲ New

Basic Information Persons Responsible Environmental Details Address Documents

Identification

Location: [1100] Plant Dallas DL00 [Translations](#)

Revision Start Date: 01/01/2023 

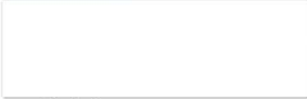
Description:  [Translations](#)

Image:  [Upload Image](#)

Integration to Plant Maintenance (PM)

[Establish PM Link](#) [Remove PM Link](#)

Organizational Information

Plant ID: DL00  Plant Dallas

Company Code: US00  Global Bike Inc.

Business Area: BI00  Bikes

Controlling Area: NA00  Global Bike North America

Now please click on the *Address* tab. Here you see that *country*, *region* and *time zone* are specified for the Global Bike plant in Dallas.

Address

Name Line 1:

Name Line 2:

Street:

Street Number:

Postal Code:

PO Box:

PO Box Postal Code:

City:

Municipality:

Country / Region: US  USA

Region: TX  Texas

Time Zone: CST  Central Time (Dallas)

Phone Number:

Fax Number:

Browse through the other tabs and fields to find out which additional information could have been recorded for this location.

Click  to return to the SAP Fiori Launchpad.



EM 2: Set Your Location

Exercise Use the SAP Fiori Launchpad to set your standard location.

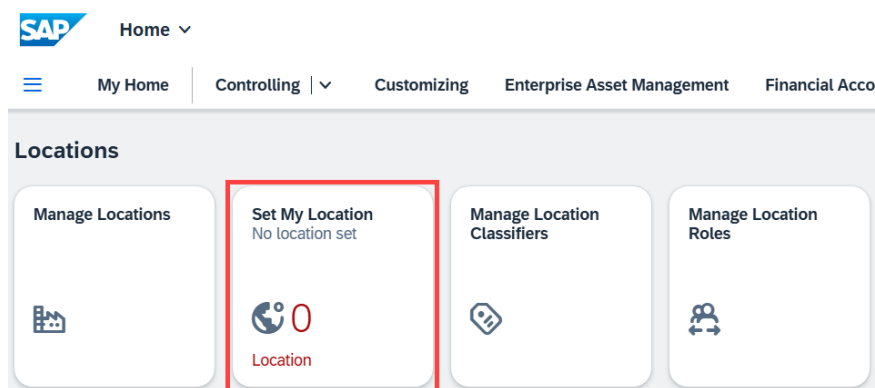
Time 5 min

Task A user may have access to multiple location hierarchy elements. In this exercise, you are setting your standard location in the SAP S/4HANA system.

Name (Position) Hiro Abe, Plant manager, Plant Dallas

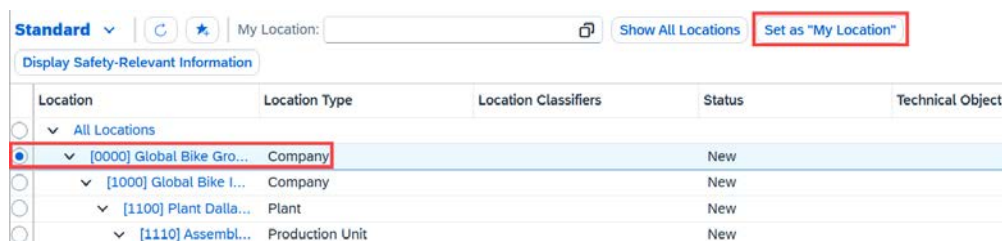
To set your default location use the *Set My Location* app in the *Environment Management* space in the *Locations* section.

Start

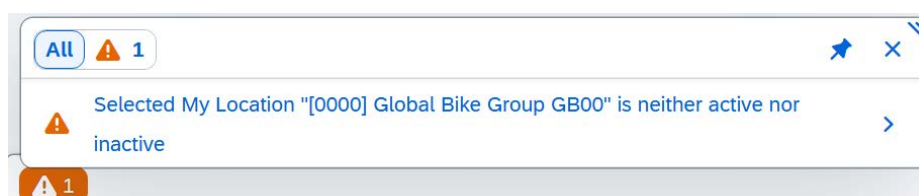


In the following screen, select the root location hierarchy *[0000] Global Bike Group GB00* and choose *Set as "My Location"*.

[0000] Global Bike
Group GB00
Set as "My Location"



Ignore the warning message on the bottom.



Now this location is displayed in the *My Location* field.

My Location: [0000] Global Bike Group GB00 / ID:

Click  to return to the SAP Fiori Launchpad. Confirm any browser warning messages for unsaved data with .

The next time you choose the *Environment Management* space, you see the number of locations within the standard location hierarchy you selected in this exercise. If not, please refresh the browser page.



EM 3: Display Compliance Requirements

Exercise Use the Fiori Launchpad to display current compliance requirements for Global Bike.

Time 5 min

Task Before creating compliance scenarios you need to know or define compliance requirements that Global Bike needs to fulfill. Get familiar with the current compliance requirements and their details.

Name (Position) Hiro Abe, Plant manager, Plant Dallas

To view the current compliance requirements for Global Bike use the *Manage Compliance Requirements* app in the *Environment Management* space in the *Compliance Requirements* section.

Start

On the following screen, you see all available requirements for Global Bike. Remember that these requirements are all preset. You can also create your own compliance requirement.

Please choose the *EN: COMMISSION DECISION: 2014/955/EU* regulation to get more information.

Type:	Domain:	Changed By:	Status:	Validity Area:	Valid On:
Q			New x 2 More		This Year (01/01/2025 - 1...
Compliance Requirements (14)					
Name	Type	Domain	Issuing Organization	Validity Area	Status
EMEP/EEA air pollutant emission inventory guidebook 2016 - Emission factors	Policy	Air	European Environment Agency	Germany, France, Czech Republic,...	Released
Title 40: Protection of Environment; PART 98--MANDATORY GREENHOUSE GAS REPORTING	Regulation	Air	United States Environmental Protection Agency (EPA)	USA	Released
GHG Emission Factors Hub	Policy	Air	United States Environmental Protection Agency (EPA)	USA	Released
Australian National Greenhouse Accounts	Regulation	Air	Australian Government - Department of the Environment	Australia	Released
European Residual Mixes 2020	Policy	Air	Association of Issuing Bodies	Austria, Belgium, Bulgaria, Cyp...	Released
Australian National Greenhouse Accounts	Regulation	Air	Australian Government - Department of the Environment	Australia	Released
Emissions & Generation Resource Integrated Database (eGRID)	Policy	Air	Environmental Protection Agency (EPA)	USA	Released
Title 40: Protection of Environment; PART 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE	Regulation	Waste	United States Environmental Protection Agency (EPA)	USA	Released
DE: BESCHLUSS DER KOMMISSION 2014/955/EU	Regulation	Waste	European Environment Agency	Germany	Released
EN: COMMISSION DECISION: 2014/955/EU	Regulation	Waste	European Environment Agency	Austria, Belgium, Bulgaria, Crea...	Released
Fifth Assessment Report of the Intergovernmental Panel on Climate Change (AR5)	Policy	Air	Intergovernmental Panel on Climate Change (IPCC)	Worldwide	Released

You can now dive into various information of existing compliance requirements such as requirement details, contents, tasks or documents in order to learn what this requirement regulates and which specifics Global Bike needs to fulfill.

▼ Compliance Requirement Details Contents Tasks Documents

ID:

Name: * [Translations](#)

Domain: *

Issuing Authority: [Details](#)

Content Provider:

Issuing Organization: [Translations](#)

Validity Area: [Edit](#)

Description:

LIST OF WASTE

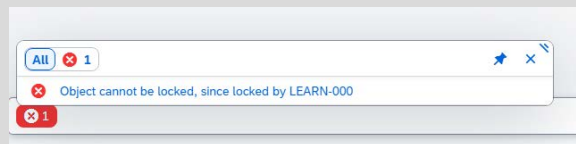
The different types of waste in the list are fully defined by the six-digit code for the waste and the respective two-digit and four-digit chapter headings. This implies that the following steps should be taken to identify a waste in the list:

—

Identify the source generating the waste in Chapters 01 to 12 or 17 to 20 and identify the appropriate six-digit code of the waste (excluding codes ending with 99 of these chapters). Note that a specific production unit may need to classify its activities in several chapters. For instance, a car manufacturer may find its wastes listed in Chapters 12 (wastes from shaping and surface

[Translations](#)

Note If you receive the error message below again, please acknowledge or ignore it.



On the *Tasks* tab, particular tasks can be defined that compliance scenarios introduced in the next exercise could be linked to.

Click  to return to the SAP Fiori Launchpad. Confirm any browser warning messages for unsaved data with .



EM 4: Display Compliance Scenarios

Exercise Display the current compliance scenarios for Global Bike and view selected data.

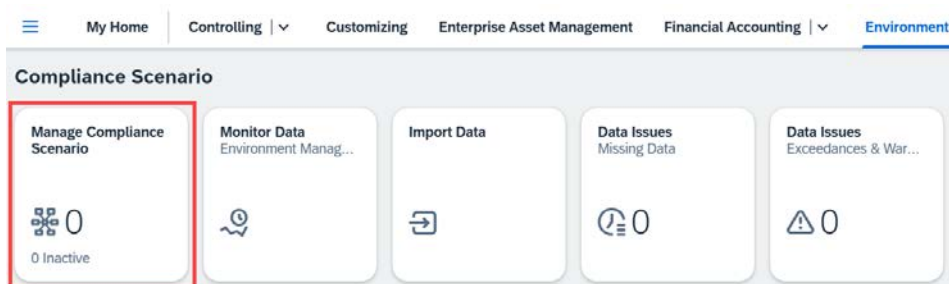
Time 20 min

Task Use the *Manage Compliance Scenario* app to gain an overview of all scenarios and their activities. Also, look at data points to measure the electricity consumption in the Dallas plant assembly lines.

Name (Position) Jun Lee, Production planner, Plant Dallas

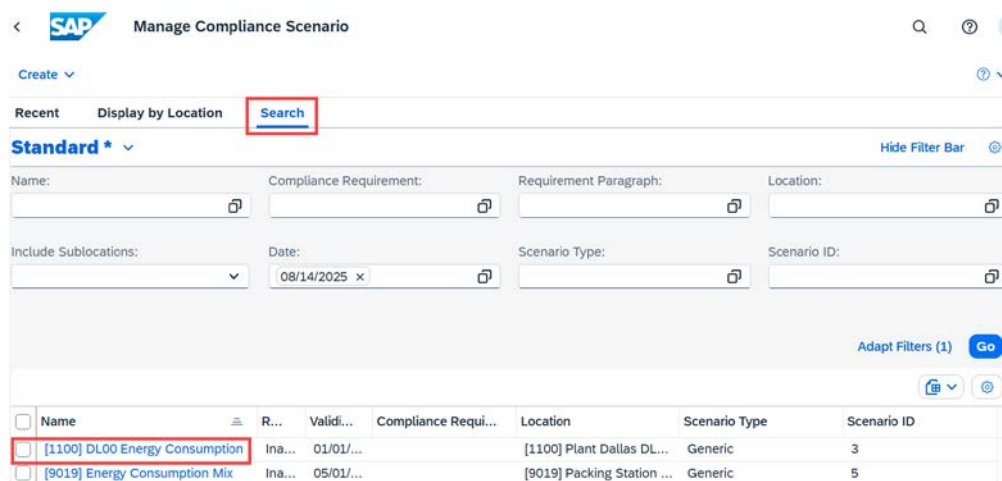
To get an overview of all existing compliance scenarios, use the *Manage Compliance Scenario* app in the *Environmental Management* space in the *Compliance Scenario* section.

Start

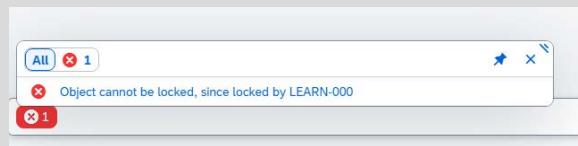


Choose *Search* to find and select compliance scenarios available to you. Keep all default setting and click **Go**. Then, click the first entry in the list *[1100] DL00 Energy Consumption*.

Go
[1100] DL00 Energy
Consumption

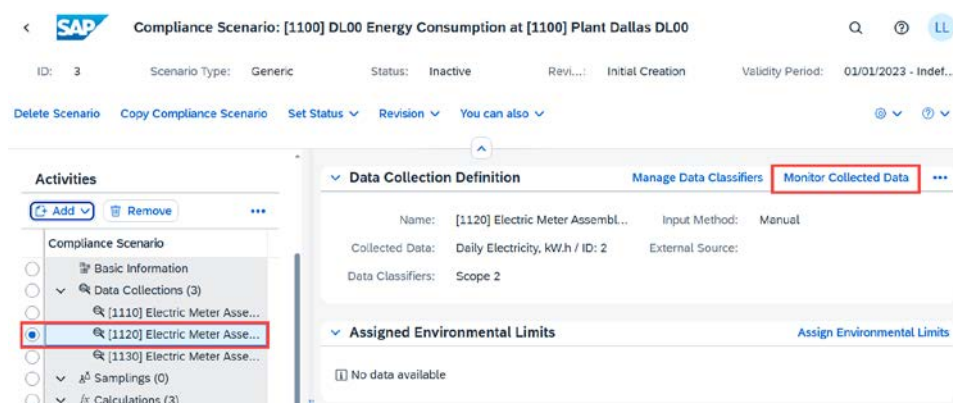


Note If you receive the error message below again, please acknowledge or ignore it.



You are now able to see all information regarding this compliance scenario such as basic information, the associated location, the responsible manager and more. Take some time to browse through these details. Then, click **[1120] Electric Meter Assembly 2**. In the data collection definition, click **Monitor Collected Data** to view the electricity output of this meter.

[1120] Electric Meter Assembly 2

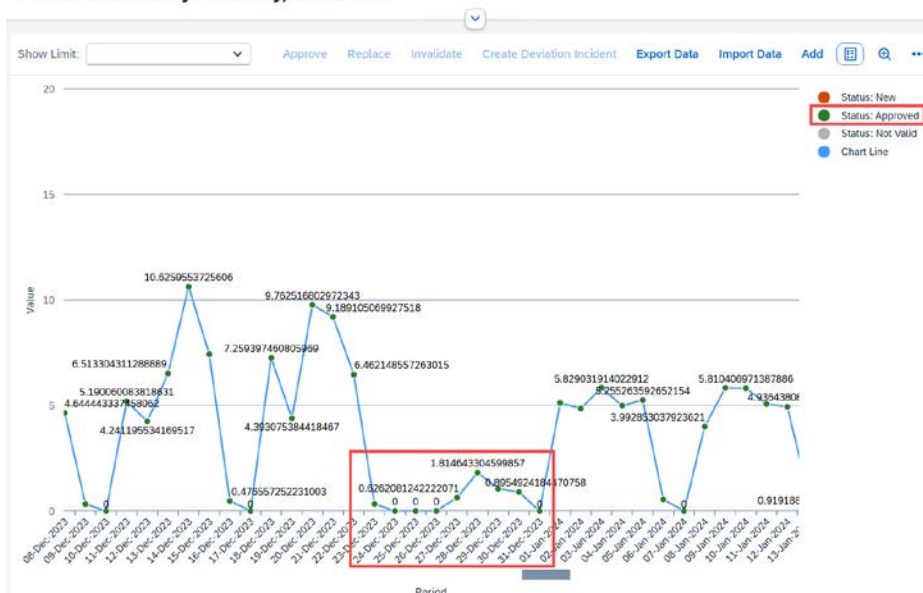


Now, in the **From** field choose **01-Jan-2023** and in the **To** field choose **30-Jun-2024**. Your screen will automatically refresh to display the electricity consumption of the 18-month period you selected. It will look like the screenshot shown below. According to the status options in the legend, all data points have already been *approved*.

01-Jan-2023
30-Jun-2024

Use the horizontal scroll bar on the bottom to examine the consumption data. For example, find and review the data points at the turn of the year 2023/2024.

Collected Data: Daily Electricity, kW.h / ID: 2



You may use the  button to open and the  button to close the full screen. Click on  to switch to the table view.

Data Records (547) [Approve](#) [Replace](#) [Invalidate](#) [Create Deviation Incident](#) [Export Data](#) [Import Data](#) [Add](#)   

☐	Issue Type	Status	Value	Period	History	Replaced	Incident ID	Comment
☐	Correct Data	Approved	0 kW.h	30-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	0.6325060476181212 kW.h	29-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	9.04415824475271 kW.h	28-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	8.084672469700589 kW.h	27-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	5.461147359020916 kW.h	26-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	5.96088905675544 kW.h	25-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	6.520484359900295 kW.h	24-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	0 kW.h	23-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	0.9444813028629111 kW.h	22-Jun-2024	History	☐		Value was added either ...
☐	Correct Data	Approved	6.413492737889353 kW.h	21-Jun-2024	History	☐		Value was added either ...
☐			12.66022482836915					

Close your current web browser tab *Monitor Data* and go back to your *Compliance Scenario* tab.

Back in the compliance scenario for *[1100] Plant Dallas DL00*, you see that a total of three data collections – all for electric meters – have already been put in the system. This function is used to establish, schedule, and ensure the collection of environmentally-related data at a given location. Feel free to display and compare the energy consumption of the other two meters.

You see that so far no *sampling* was conducted within this scenario. You can also see that three calculations were entered into the system for this compliance scenario. They contain all the necessary information that is needed to carry out calculations of environmentally-related data. Choose calculation *[1110] Electric Meter Assembly 1 - monthly*.

[1110] Electric Meter Assembly 1 - monthly

Activities

[Add](#) [Remove](#) [Where Used](#) [...](#)

- Compliance Scenario
 - Basic Information
 - Data Collections (3)
 - [1110] Electric Meter Assembly 1
 - [1120] Electric Meter Assembly 2
 - [1130] Electric Meter Assembly 3
 - Samplings (0)
 - Calculations (3)
 - [1110] Electric Meter Assembly 1 - monthly
 - [1120] Electric Meter Assembly 2 - monthly
 - [1130] Electric Meter Assembly 3 - monthly
 - Location Aggregations (2)
 - [1100] DL00 Electricity Total - monthly
 - [1100] DL00 Electricity Total - daily
 - Tasks (0)

Calculation Setup [Calculate Manually](#) [Calculation Setup Details](#)

Details

Calculation Name: [1110] Electric Meter Assembly 1 - monthly

Description:

Calculation Mode: Automatic for Complete Data Only

Equation Details

Equation Name:

Equation Description:

Calculation Results

[Manage Data Classifiers](#) [Assign Environmental Limits](#) [Monitor Calculated Data](#)

Title	Expression	Description	Environmental Limits	Data Classifiers
Monthly Electricity, k...	SUM(DL00_METE...			Scope 2

On the top right, choose *Calculation Setup Details*.

Calculation Setup
Details

[Calculation Setup](#)
[Calculate Manually](#)
[Calculation Setup Details](#)

Details

Calculation Name: [1110] Electric Meter Assembly 1 - monthly

Description:

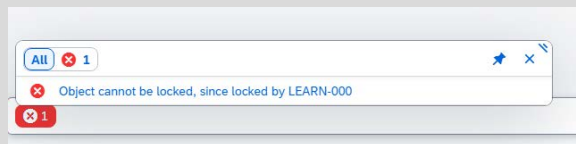
Calculation Mode: Automatic for Complete Data Only

Equation Details

Equation Name:

Equation Description:

Note If you receive the error message below again, please acknowledge or ignore it.



Here you can see the selected calculation method, the calculation expression, the data classifier (scope 1 vs. scope 2 vs. scope 3) and the defined variable *DL00_METER1*.

On the bottom right, choose *Back to Compliance Scenario*.

Back to Compliance
Scenario

[Save](#)
[Back to Compliance Scenario](#)

In the menu on the left, you see that two location aggregations were created. This activity is used to acquire aggregated values for your environmental data for the purposes of environmental assessments and reporting to authorities. You can perform location-based aggregations manually or schedule them to run automatically. Select **[1100] DL00 Electricity Total - monthly**. On the top right, click *Monitor Aggregated Data*.

[1100] Electricity Total –
monthly
Monitor Aggregated
Data

SAP Compliance Scenario: [1100] DL00 Energy Consumption at [1100] Plant Dallas DL00

ID: 3 Scenario Type: Generic Status: inactive Revision: Initial Creation Validity Period: 01/01/2023 - Indefinite

Delete Scenario Copy Compliance Scenario Set Status Revision You can also

Compliance Scenario

- Basic Information
- Data Collections (3)
 - [1110] Electric Meter Assembly 1
 - [1120] Electric Meter Assembly 2
 - [1130] Electric Meter Assembly 3
- Samplings (0)
- Calculations (3)
 - Data References (0)
 - [1110] Electric Meter Assembly 1 - ...
 - [1120] Electric Meter Assembly 2 - ...
 - [1130] Electric Meter Assembly 3 - ...
- Location Aggregations (2)
 - [1100] DL00 Electricity Total - monthly**
 - [1100] DL00 Electricity Total - daily

Location Aggregation

Name: [1100] DL00 Electricity Total - monthly Aggregati...: Automatic for Complete Data Only

Aggregated Data: SUM Monthly Electricity kW.h /ID: 1 Description:

Function: Arithmetic Sum (SUM)

Data Classifiers: Scope 2

Assigned Environmental Limits

Assign Environmental Limits

(i) No data available

In the *From* field, select **Jan, 2023**, in the *To* field, select **Jun, 2024**. Your screen will automatically refresh to display the aggregated electricity consumption for all electric meters. It will look like the screenshot shown below.

Jan, 2023
Jun, 2024



Close your current web browser tab *Monitor Data* and go back to your *Compliance Scenario* tab.

In the menu on the left, you see that no compliance tasks have been selected. Remember that this is where tasks defined in the *Manage Compliance Requirements* app could be linked to regulations that need to be fulfilled by Global Bike.

- ☐ ☒ *fx* Calculations (3)
 - ☐  Data References (0)
 - ☐ *fx* [1110] Electric Meter Assembly 1 - ...
 - ☐ *fx* [1120] Electric Meter Assembly 2 - ...
 - ☐ *fx* [1130] Electric Meter Assembly 3 - ...
- ☐ ☒  Location Aggregations (2)
 - ☐  [1100] DL00 Electricity Total - monthly
 - ☐  [1100] DL00 Electricity Total - daily
- ☒ ☒  Tasks (0)

Click  to return to the SAP Fiori Launchpad.



EM 5: Analyze Environmental Data

Exercise Analyze Global Bike's environmental data.

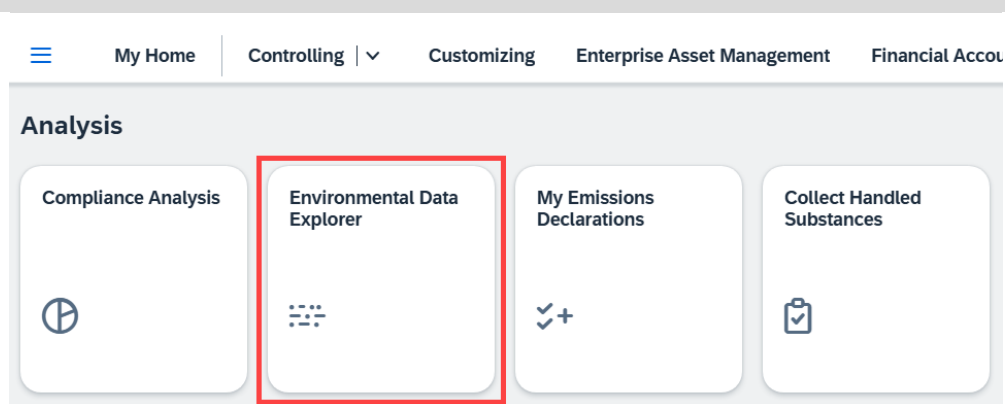
Time 10 min

Task Use the *Environmental Data Explorer* app to analyze all environmental data collected and calculated for Global Bike.

Name (Position) Jun Lee, Production planner, Plant Dallas

To analyze environmental data, use the *Environmental Data Explorer* app in the *Environmental Management* space in the *Analysis* section.

Start



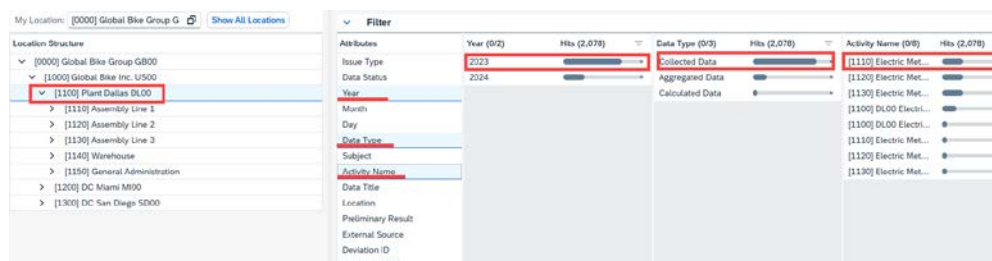
Note: You must first click on the name [1000] Global Bike Inc. US00 before the tree can be opened. Only then can the tree be opened or expanded.

In the menu *Location Structure* on the left, select **[1100] Plant Dallas DL00**. From the *Attributes* list, select **Year**, **Data Type** and **Activity Name** by clicking the Attribute. From the *Data Type* value list, select **Collected Data**. From the *Activity Type* value list, select **[1110] Electric Meter Assembly 1**. Finally, select **Year 2023**. The 365 resulting data records (one for each day of calendar year 2023) are shown below.

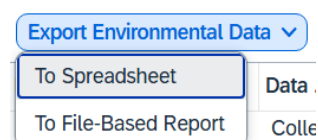
[1100] Plant Dallas ...

Year
Data Type
Activity Name

Collected Data
[1110] Electric ...
2023



You can export the search result to a spreadsheet.



These files could then be imported and further processed in MS Excel or SAP Analytics Cloud (SAC).

Note SAP UCC Magdeburg developed an extensive SAC Sustainability case study loading travel data to a Global Bike event in New York City and calculating the partial carbon footprint using UN-approved conversion factors for various means of transportation.

SAC Sustainability
case study

Data Status	Period	Value	Data Type	Activity Name	Data Title	Location
Approved	01/01/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/02/2023	Value: 16.008, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/03/2023	Value: 17.553, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/04/2023	Value: 19.958, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/05/2023	Value: 21.078, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/06/2023	Value: 18.553, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/07/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/08/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/09/2023	Value: 17.927, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/10/2023	Value: 18.413, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/11/2023	Value: 22.045, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/12/2023	Value: 20.933, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/13/2023	Value: 19.429, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/14/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/15/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/16/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/17/2023	Value: 19.646, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/18/2023	Value: 21.41, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/19/2023	Value: 24.01, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/20/2023	Value: 23.752, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/21/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/22/2023	Value: 0, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/23/2023	Value: 21.181, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3
Approved	01/24/2023	Value: 22.4995, unit: kW.h	Collected Data	[1110] Electric Meter Assembly 1	Daily Electricity, kW.h / ID: 1	[1100] Plant Dallas DL00 / ID: 3

Click  to return to the SAP Fiori Launchpad.

