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Select the **Multilingual Embedded Dashboards** lab in the drop-down

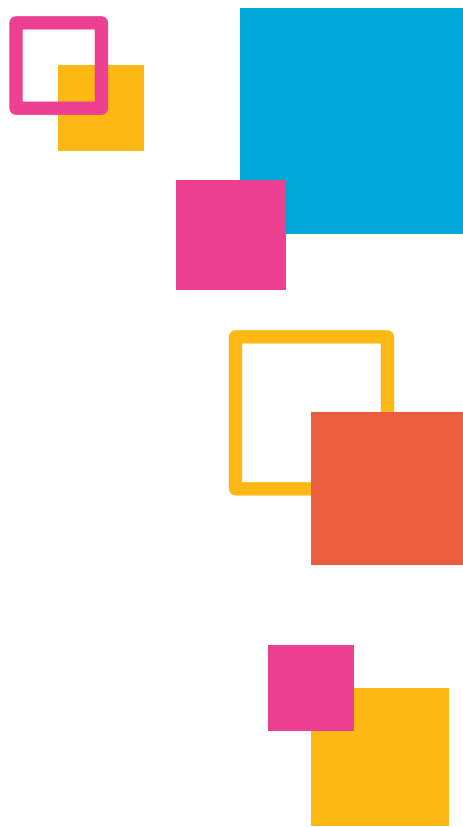


Hands-on Lab: Multilingual Embedded Dashboards



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Agenda

What is localization

How to create localized dashboards

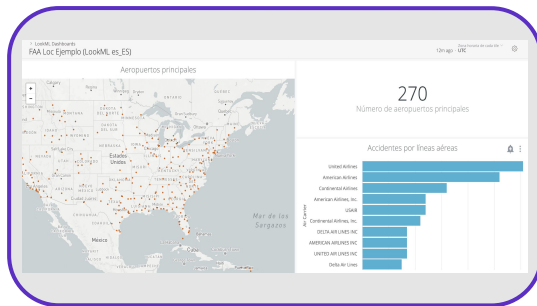
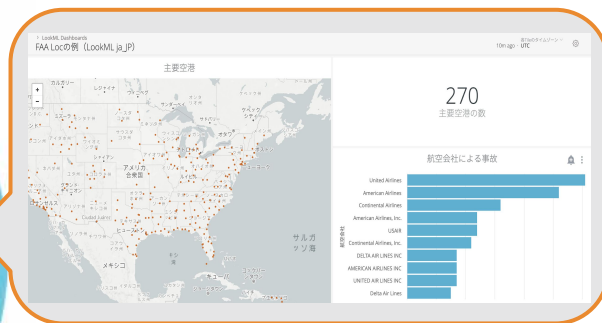
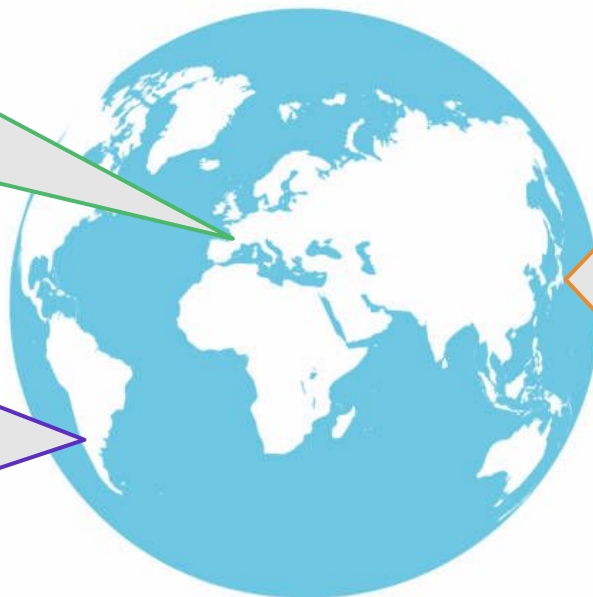
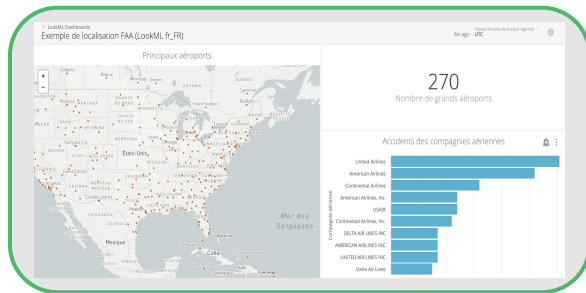
Hands on: Embedding localized dashboards

Summary

Q&A

What is localization?

Displaying content in your users' language



How does it work?

The background features a series of thin, light green lines radiating from a central point, creating a sunburst or starburst effect. There are also several abstract, light green shapes scattered around the center, including a small square, a cluster of dots, and some horizontal bars.

Steps

Creating a localized dashboard experience

1. Create dashboard and convert to LookML dashboard
2. Localize the data model
3. Provision user locales
4. Embed!

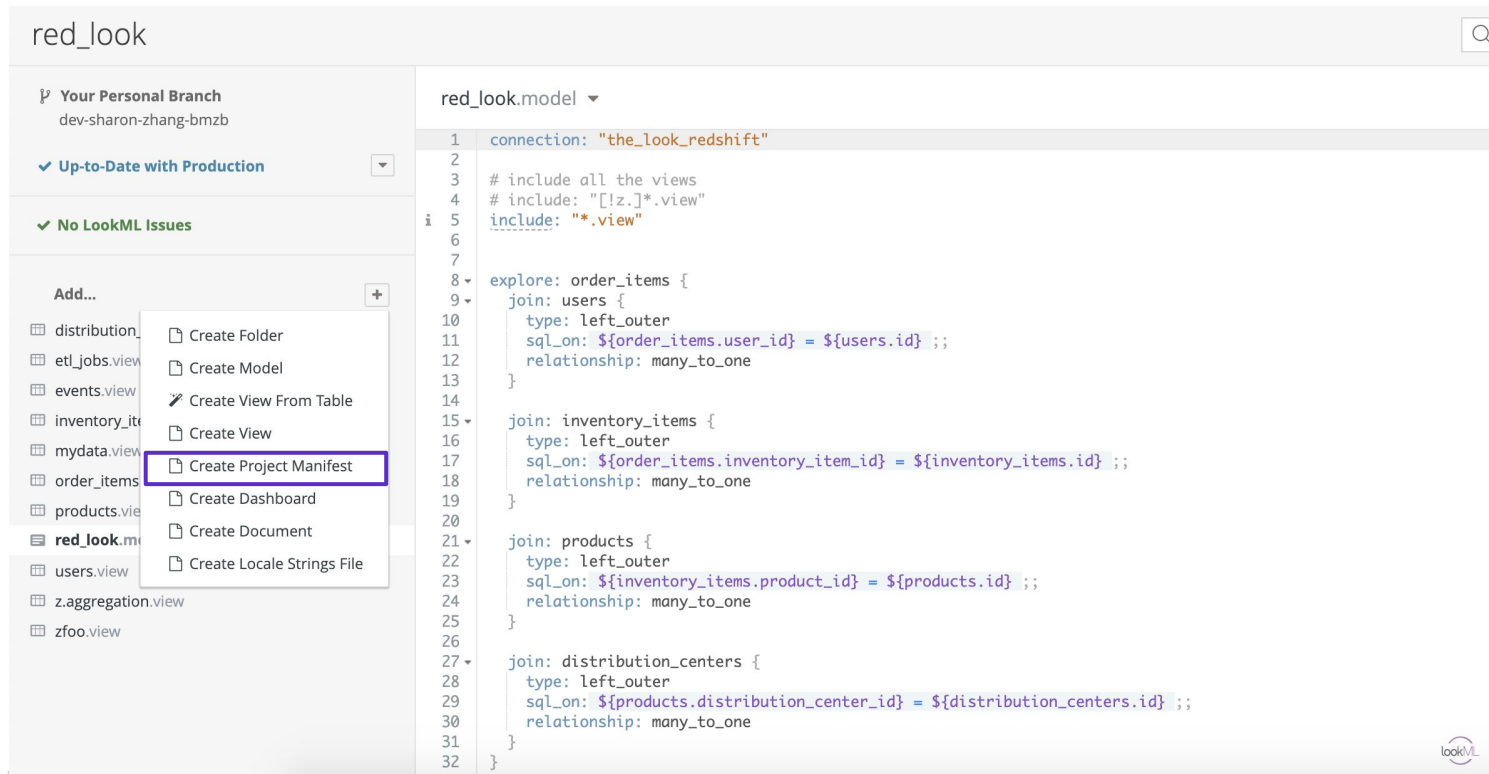
Localizing data models

Steps for implementation

1. Enable localization for your project by [adding localization settings to the project's manifest file](#).
2. Determine which elements will be localized by [adding labels, group labels, and descriptions to your model](#).
3. Provide the localization definitions for your project by [creating locale strings files](#).
4. Determine the display for different users by [assigning users to locales](#).

Localizing data models

Create Project Manifest file



The screenshot shows the Looker web interface. On the left, the 'red_look' project is selected. Below the project name, there are status indicators: 'Your Personal Branch' (dev-sharon-zhang-bmzb), 'Up-to-Date with Production', and 'No LookML Issues'. The 'Add...' menu is open, showing options to create various artifacts. The 'Create Project Manifest' option is highlighted with a red rectangle. The main area displays the 'red_look.model' file, which contains the following LookML code:

```
1 connection: "the_look_redshift"
2
3 # include all the views
4 # include: "[*].view"
5 include: "/*.view"
6
7
8 explore: order_items {
9   join: users {
10     type: left_outer
11     sql_on: ${order_items.user_id} = ${users.id} ;;
12     relationship: many_to_one
13   }
14
15   join: inventory_items {
16     type: left_outer
17     sql_on: ${order_items.inventory_item_id} = ${inventory_items.id} ;;
18     relationship: many_to_one
19   }
20
21   join: products {
22     type: left_outer
23     sql_on: ${inventory_items.product_id} = ${products.id} ;;
24     relationship: many_to_one
25   }
26
27   join: distribution_centers {
28     type: left_outer
29     sql_on: ${products.distribution_center_id} = ${distribution_centers.id} ;;
30     relationship: many_to_one
31   }
32 }
```

Localizing data models

Add localization settings to manifest file

ecommerce

Your Personal Branch
dev-sharon-zhang-gcn9

Please validate your LookML code.

Validate LookML

Project has changed, errors are out of date.

Validate Again

Add...

Project

manifest ...

manifest.lkml ▾

```
1 #project_name: "ecommerce"
2 # # Use local_dependency: To enable referencing of another project
3 # # on this instance with include: statements
4 #
5 ▾ #local_dependency: {
6   #   project: "thelook"
7   # }
8 ▾ localization_settings: {
9   default_locale: en
10  localization_level: permissive
11 }
12
```

Localizing data models

Add labels, group_labels, descriptions to models and views

- **label** at the level of [field](#), [model](#), [Explore](#), or [view](#).
- **group_label** at the level of [Explore](#), [field](#).
- **group_item_label** at the level of [field](#).
- **description** at the level of [Explore](#), [field](#).

Tile level for lookml dashboards

- [title](#)
- [description](#)
- [text](#)

Localizing data models

Add labels, group_labels, descriptions to models and views

thelook.model ▾

```
103
104
105 ▾ explore: order_items {
106   group_label: "RevenueAnalysis"
107   label: "OrdersandSales"
108   view_label: "Orders"
109   description: "Use this Explore to drill into ordering patterns and sales revenue"
110 ▾ join: order_facts {
111   view_label: "Orders"
112   relationship: many_to_one
113   sql_on: ${order_facts.order_id} = ${order_items.order_id} ;;
114 }
115 ▾ join: inventory_items {
116   view_label: "Orders"
117   fields: [inventory_items.total_cost]
118   type: left_outer
119   relationship: one_to_one
120   sql_on: ${inventory_items.id} = ${order_items.inventory_item_id} ;;
121 }
122 ▾ join: users {
123   fields: [user_information*]
124   relationship: many_to_one
125   sql_on: ${order_items.user_id} = ${users.id} ;;
126 }
127 ▾ join: user_order_facts {
128   view_label: "Orders"
129   relationship: many_to_one
130   sql_on: ${user_order_facts.user_id} = ${order_items.user_id} ;;
131 }
```

Localizing data models

Create locale strings files

ecommerce

Find & Replace in Project Go

Your Personal Branch
dev-sharon-zhang-gcn9

Up-to-Date with Production

Project has changed, errors are out of date.
Validate Again

Add...

- 01_order_items
- 02_users
- 03_inventory
- 04_products
- 05_distribution
- 06_order_facts
- 07_user_order
- 08_repeat_purchase_facts
- 09_events
- 10_sessions

Create Model

Create View From Table

Create View

Create Dashboard

Create Document

Create Locale Strings File

Locale Translation Strings

en

psbrackets_pseudo

en.strings

```
1 // thelook.model
2 "eCommercewithEventData" = "eCommerce with Event Data";
3 "WebEvents" = "Web Events";
4 "WebAnalytics" = "Web Analytics";
5 "Use this Explore to analyze individual events that occurred within a user's session" = "Use this Explore to analyze individual events that
  occurred within a user's session";
6 "WebSessions" = "Web Sessions";
7 "Use this Explore to identify session trends and common session navigation pathways" = "Use this Explore to identify session trends and common
  session navigation pathways";
8 "RevenueAnalysis" = "Revenue Analysis";
9 "Use this Explore to analyze inventory stock, costs, and distribution" = "Use this Explore to analyze inventory stock, costs, and distribution";
10 "Inventory" = "Inventory";
11 "Orders" = "Orders";
12 "OrdersandSales" = "Orders and Sales";
13 "Use this Explore to drill into ordering patterns and sales revenue" = "Use this Explore to drill into ordering patterns and sales revenue";
14 "CustomerBehavior" = "Customer Behavior";
15 "Use this Explore to analyze customer behavior and retention (including customers that have never ordered)" = "Use this Explore to analyze
  customer behavior and retention (including customers that have never ordered)";
16
17 // business_pulses.dashboard
18
19 "business_pulse" = "Business Pulse";
20 "NumberOfFirstPurchasers" = "New Users Acquired";
21 "OrdersbyDayandCategory" = "Orders by Day and Category";
22 "WebsiteVisitVolumevsConversionRate" = "Website Visit Volume vs. Conversion Rate";
23 "PercentofCohortStillActivebyTrafficSource" = "Percent of Cohort Still Active by Traffic Source";
24 "AverageOrderSalePrice" = "Average Order Sale Price";
25 "TotalSpendbyCohort" = "Total Spend by Cohort";
26 "TotalSalesYearoverYear" = "Total Sales, Year over Year";
27 "HighestSpendingUsers" = "Highest Spending Users";
28 "UserBehaviorsbyTrafficSource" = "User Behaviors by Traffic Source";
29 "Bubble size corresponds to average user spend" = "Bubble size corresponds to average user spend";
30
```

Setting locales for users

Admins must manage locales for users

Internal Users

- Assign locale value in Users panel
- Assign locale value in User Attribute panel to Groups

Embed Users

- Pass value via SSO URL
- Pass group_id associated with value

Setting locales for users

Assign locale and number format to users in the **Admin** panel

The screenshot shows the Looker Admin interface for editing a user. The top navigation bar includes the Looker logo and links for Browse, Explore, Develop, and Admin. The left sidebar lists various admin functions, with 'Localization' highlighted under the 'Users' section. The main content area is titled 'Edit User' and contains several sections: 'General' with fields for First Name (Sharon), Last Name (Zhang), and Email (sharon@looker.com); 'Localization' (highlighted with a red box) with a 'Locale' dropdown set to 'en' and a 'Number format' dropdown set to '1,234.56'; 'Password' with a 'Send reset link' button; 'API3 Keys' with an 'Edit Keys' button; and 'Individual Roles' with a list of roles where 'Admin details' is selected. A note at the bottom states: 'Use the Roles tab to create new roles with specific permissions and access'.

looker

Browse ▾ Explore ▾ Develop ▾ Admin ▾

Edit User

General

Settings

Labs

Custom Welcome Email

Internal Help Resources

Localization

Users

Users

Groups

Roles

Content Access

User Attributes

Login Lockouts

First Name Sharon

Last Name Zhang

Email sharon@looker.com

Localization

Locale en ▾

Number format 1,234.56 ▾

Password Send reset link

API3 Keys Edit Keys

Individual Roles

☒ Admin details

☐ Hackathon details

☐ SageMaker User details

☐ Zapier Lab User details

☐ looker_dummy_data details

Use the Roles tab to create new roles with specific permissions and access

The background features a series of thin, light-green lines radiating from a central point, creating a sunburst or starburst effect. There are also several abstract, light-green shapes scattered around the center, including a grid-like pattern and some vertical bars.

How do we integrate this dashboard into our company portal?

Powered by Looker

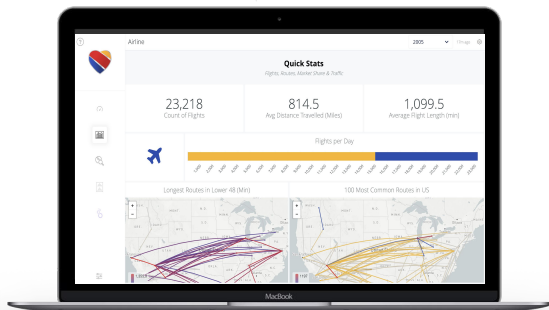
OEM

Whitelabel of Looker's UI;
customers log directly into Looker



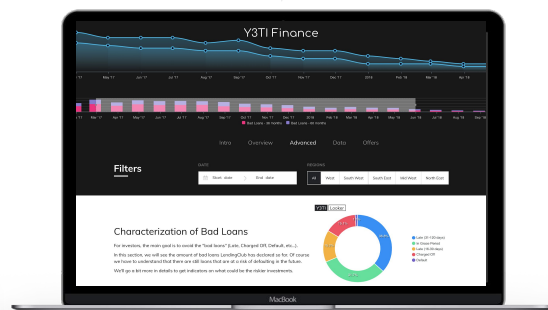
Embed

Display visualizations from Looker
using embedded iframes



API

Using Looker's API to deliver a
custom application with custom
visualizations



* Not mutually exclusive. Common to deploy a combination. E.g. Embed + API

SSO embedding

Sharing Looker content in external applications

SSO embedding allows you to integrate Looker content via iframes into other applications

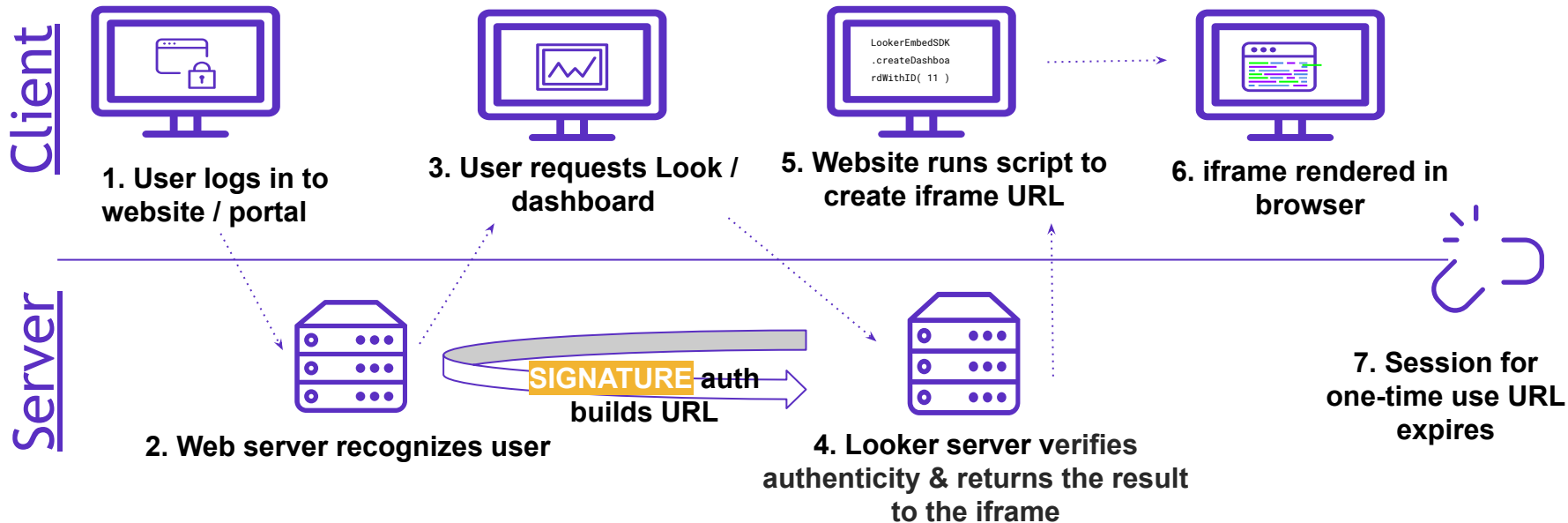
User authentication to Looker is handled through the SSO URL

Embed user never has to log into Looker

Richer in-frame experience

SSO embedding

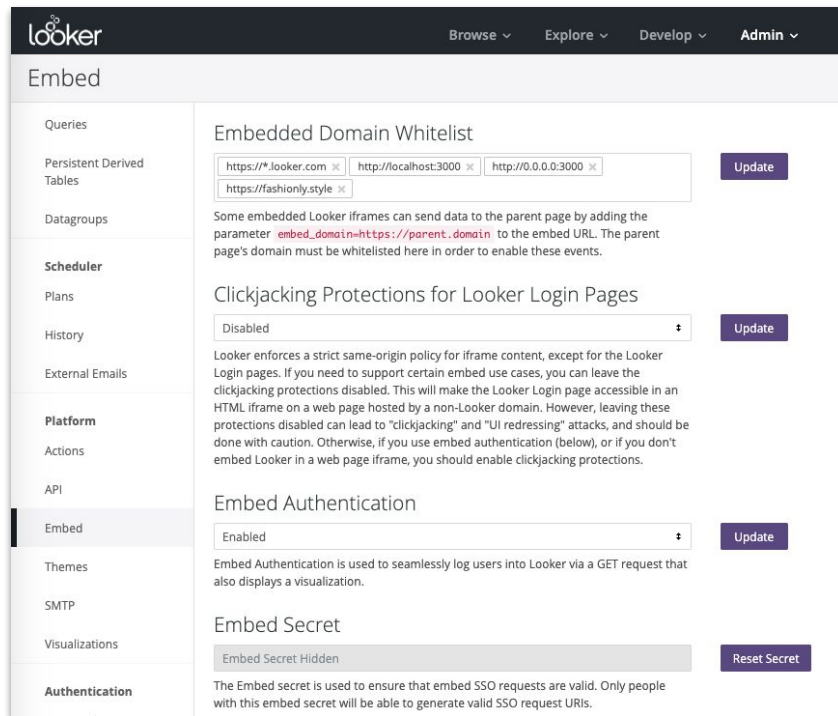
Communication workflow



SSO embedding

Preparing your instance and content for embedding

- 1) Enable embed authentication and generate the embed secret (**Admin > Embed**)
- 2) Create content and saved content URL (e.g., /embed/dashboards/12, /embed/looks/4)
- 3) Determine user access level
 - a) [Permissions](#)
 - b) [Models](#)
 - c) [User attributes](#)
 - d) [Content access](#)



SSO embedding

Components of a SSO embed URL

https://**HOST**/login/embed/**CONTENT_PATH**?**PARAMETERS**&signature=**SIGNATURE**

An embeddable URL:

https://**yourcompany.looker.com**/login/embed/%2F**embed%2Fdashboards%2F78**?**nonce=%22pVbKkWWTR2hLLkff%22&time=1540831983&session_length=600&external_user_id=%2255%22&permissions=%5B%22access_data%22%2C%22see_looks%22%5D&models=%5B%22sme_survey%22%5D&group_ids=%5B%5D&external_group_id=%22%22&user_attributes=%7B%7D&access_filters=%7B%7D&first_name=%22John%22&last_name=%22Smith%22&force_logout_login=true**&signature=**XF%2FZsgRZTeZWBSdY1kyd3eEKgE4%3D**

SSO embedding

Important parameters

session length

/ʃeSHən leNG(k)TH/

noun

1. The amount of time a user can interact with an embedded Looker page before being forced to log in again

nonce

/näns/

noun

1. A one-time-use code that ensures uniqueness of the URL

signature

/ʃignəCHər,ʃignəÇHöör/

noun

1. A piece of the embed URL that verifies the validity of the entire URL
 - a. To prevent a nefarious user from changing elements of the URL (filters, user attributes) to access data they shouldn't have access to, the URL is SIGNED

The background features a series of thin, light green lines radiating from a central point, creating a sunburst effect. There are three abstract shapes: a small cluster of horizontal lines on the left, a rectangular grid of dots on the right, and a series of vertical bars at the bottom right.

Try it out

Embedding exercise

Embedding a multilingual dashboard

1. Navigate to the **Business Pulse** dashboard (Browse > All folders > LookML Dashboards) at `join2019.looker.com`
2. Navigate to the demo embed site: https://fabio-looker.github.io/looker_sso_tool/
3. Get [embed secret](#).
4. Fill out form on embed site. Be sure to add a user attribute for `locale` and `value: en, fr,` or `jp`.
5. Hit **Go!**
6. Change the user attribute value for `locale` and hit **Go!** again.

Embedded Localized Dashboard example

Integration of localized dashboard in an external application

User

Permissions

download_without_limit

see_drill_overlay

save_content

embed_browse_spaces

schedule_look_emails

schedule_external_look_emails

send_to_sftp

send_to_s3

send_outgoing_webhook

see_sql

Models

thelook

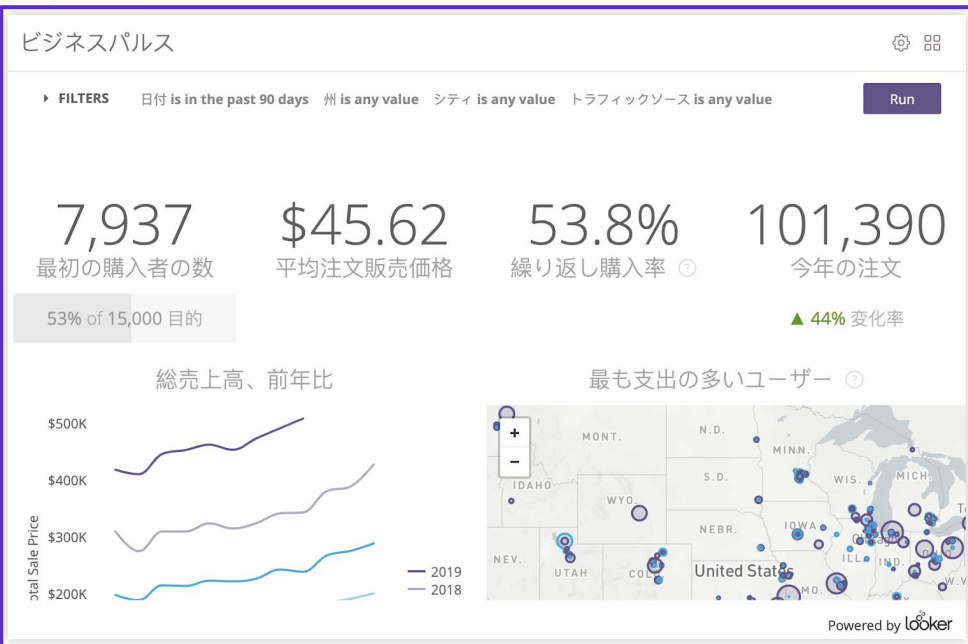
User Attributes

field	value	
locale	jp	<div>✕</div>

➕ row

✕ Last row

Embed Preview



Summary

- Localizing Looker dashboards allows you to serve analytics to your users in their preferred languages.
- Store all translations inside of LookML files and edit them anytime.
- Embedding localized dashboards is quick to set up and fits easily inside an existing PBL application.

Questions?

The background is a solid purple color. A central point from which numerous thin, light-purple lines radiate outwards across the entire frame. There are three distinct clusters of small, light-purple squares: one on the left side, one in the upper right quadrant, and one in the lower right quadrant.



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Thank you

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