AIRe Lens
USER'S GUIDE

◇ Applications

Contents

1 Basic navigation

1   Basic navigation

SG Platform is a cloud base web application. The application web address is specifically assigned to each customer. Use the address you have received with your licence.

It is recommended to use web browser Chrome version 68 and higher.
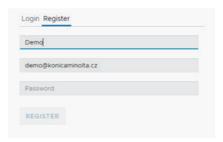
1.1   Login

For access to the application the user must be invited by the system administrator using user's email account.

The user activates her/his account by registering for the application via the link sent to her/his email address.

For your registration:

1   Go to the [Register] tab.

2   Fill in the "User name", "Email" and set your "Password".

3   Press the [Register] button.

For logging in to the application:

1   Go to the [Login] tab.

2   Fill in the "User name" and "Password".

3 Press the [Log in] button.

Upon successful login, the main application page is loaded.
In case of failure, the user is informed about the unsuccessful authentication and may retry to login.
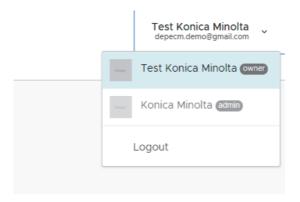
1.2 Logout

➔ For logging out from the application click on the user name in the upper right corner of the screen and use the Logout action.

1.3 User roles

In SG Platform there is a hierarchy rights access based on user roles assigned to the user. The menu navigation and action buttons are enabled depending on the user role.

Related setting

In case you do not have an access to some application pages you need to contact the administrator of application to check your role and access rights.

1.4   Orientation on the page

On the page there are two levels of navigation. The main topic navigation is provided by the icons on the first row. The submenu available for an item for the first row is displayed on the second navigation row.

The main topics are:

	Guides – tools and libraries for creating the manuals that shall be imported to the glasses
	Work – tools for the management of workers. The tools allow to create/delete workers, to maintain their authentication data and to assign them specific manuals
	Accounts – tools for the management of users. The tools allow for inviting new users, defining user roles and assigning the roles to particular users. This function is enable only for users with admin rights.
	Devices - tools for the management of devices (glasses). The tools allow for granting access rights, for monitoring/modifying the state of the devices and for maintaining the SW of the devices up to date.

Related setting

The menu in navigation bars is filtered according to the access rights. Each user can see only those icons that belong to her/his role.

2 Guides creation

2   Guides creation

On the pages under the "Guides" menu the user can create her/his own manuals that will be displayed in glasses. The user can customize the content of the guide as well as the guide formatting. Several steps need to be followed to create a new guide. The recommended process is as follows:

Import files

⌄⌄

Choose template

⌄⌄

Define data to the slides

⌄⌄

Compose the guide
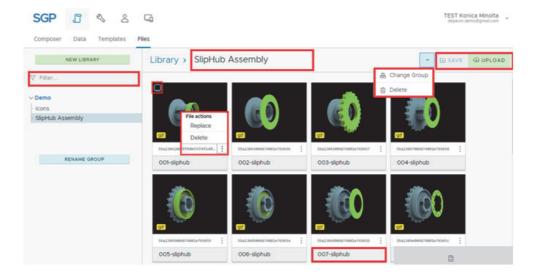
2.1   Import files

The user can import the files (pictures, videos, animations, wallpapers …) that will be used in the guide. In general, it is possible to import any type of graphics files. But in guides the images, animated gifs and videos played in html5 can be displayed, so the recommended imported formats are the following:

- png, jpg, bmp, gif
- animated gif
- mp4, webM, ogg

SG Platform allows for organizing the graphics files in groups and libraries. A library should hold graphics files related to one manual or a specific purpose, i.g. generic icons. A group should hold several related libraries, e.g. manuals related to one component or product.

Form description

Item	Description
Filter	Filters the files according to the file name. Simply write a part of the file name, files are filtered dynamically, the result is displayed below filter.

Item	Description
Rename a library name	After clicking on the library name in the upper bar, you can switch to edit mode and change the name of the whole library.
Change a folder group	For changing the folder group click the blue arrow to unroll the submenu. Click Change group action and choose the folder group.
Delete a library	For deleting a library click the blue arrow to unroll the submenu. Click Delete to delete the whole library.
Save	When you make some changes on the files in the library, press [Save] button on the upper right corner to save these changes.
Change a file name	Click on file name under the preview to switch to edit mode and change the file name.
Replace a file	Click on the menu symbol in right bottom corner of the preview to unroll a submenu and select Replace. Then browse for the replacement on your computer.
Delete files	To delete a single file, click on the menu symbol in right bottom corner of the preview to unroll a submenu. Select [Delete]. To delete multiple files at a time, move to the left upper corner and check the box that appears there to add a file for deleting.

Importing files

1   Go to page "Guides/Files".

2   Click button [New Library].

3   Fill the "Name" field and choose the "Group" that the library will belong to. It is also possible to create a new group by selecting "New group" in combo box and filling in the field "Group name".

4   Press [Add] button.

The new library folder for importing files is created.

5   In the left tree select the folder by mouse click and press [Upload] button.

6   In the opened pop-up choose the files for import.

The overview of files for import is displayed.

7   Press [Upload all] button.

The progress of the importing is displayed for each file. Once the file is imported to the system it is removed from the overview. After importing the preview of files is displayed in the library.

📖 Reference
You can also upload additional files to an existing library.

Related setting

Some types of files do not have a preview version. In these cases the default icon is displayed.
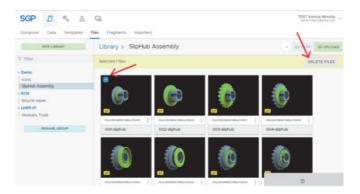
Function description:

[Upload all]	Starts the import of the files.
[Remove all]	All files are removed from the import.
[Cancel all]	Button is enabled when the import started, when pressed the upload of files is cancelled.

On the page "Files" you can also manage existing libraries and files.

Remove file

1   Go to page "Guides/Files".

2   Choose the library you want to manage.

3   In the preview mark the files you want to remove by checking the box in the upper left corner.

4   After selecting at least one file the button [Delete files] is enabled. Press the button and confirm deletion.
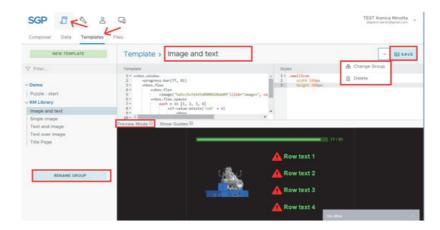
2.2   Templates

A template defines the layout of objects on one page displayed in the glasses. The template is used for generating pages of a guide. In most cases there is one template used in one guide but it is also possible to combine more templates (for details, refer to page 2-9).

The templates are prepared in JADE language. Konica Minolta provides a set of the most common templates so that the user does not need to create own templates. If the user has sufficient knowledge of JADE language, however, he/she is free to create new templates.

Form description

Item	Description
Rename the template	After clicking on the file name in the upper bar, you can switch to edit mode and change the name of the template.
Rename group	For changing the group name, use the button [Rename group]. In opened pop-up choose group you want to rename, fill new group name and press button [Rename].
Move the template to another group	Select the template in navigation tree, press a blue arrow in upper right corner to open the context menu and select [Change group] action. In pop-up menu select new group and confirm by [Change] button.
Delete template	Select the template in navigation tree, press a blue arrow in upper right corner and activate [Delete] action.
Save changes	When you edit the template definition button [Save] is enabled. Use this button to save changes in your template.
Preview mode	By checking the box you switch the preview to the transparent environment to be able to see how the template looks like in glasses in close to real environment.

New template creation

1   Go to page "Guides/Templates".

2   Click button [New Template].

3   Fill in the Template name field and choose the group that the template will belong to.

→ It is also possible to create a new group by selecting [New group] in combo box and filling in the field "Group name".

4   Press [Add] button.

The new template is created, the JADE and stylus fields are empty.

5   Define/copy a layout in JADE syntax. Specify the style.

There is a template preview displayed under the definition field.

6   Check the preview and press [Save] button to save the template definition.

📖**Reference**

In templates there are parameters named col="parameter_name" that will be linked to data values. These parameters will be replaced by variable values for each slide in guide. For details, refer to page 2-8.

Refer to page 7-3 to see an example of JADE and style template definition.
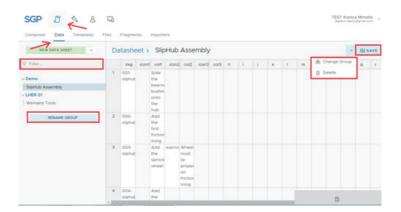
Default Templates Overview

Template name	Description/preview
Title page	Title on two lines, picture below.
Image and text	Progress bar, picture and four lines of text.

2.3 Data definition

Values of template parameters are defined in the "Data" form. Each row in a data table of the form represents one slide in the guide. Each column represents values of one parameter in different slides.

Form description

Item	Description
Filter	Filters the data sheets according to the file name. Simply write a part of file name, files are filtered dynamically, the result is displayed below filter.
Rename the data sheet	After clicking on the data sheet name in the upper bar, you can switch to edit mode and change the name of file.
Change folder group	For changing the folder group click the blue arrow to extract submenu. Click [Change group] action and choose the folder group.
Delete	For deleting a data sheet click the blue arrow to extract submenu. Click [Delete].
Save	When you make changes on the data sheet, press [Save] button in the upper right corner to save the changes.

New data sheet definition

1 Go to page "Guides/Data".

2 Click button [New Data Sheet].

3 Fill in the Name field and choose the group that the data sheet will belong to. It is also possible to create a new group by selecting [New group] in the combo box and filling in the field "Group name".

4 Press [Add] button.

The new data sheet is created, the table for data definition is displayed.

5 Fill in the parameter names into the table header (change the column names a, b, c …).

6 Define the values for the parameters, each row in the table represents one slide in your guide.
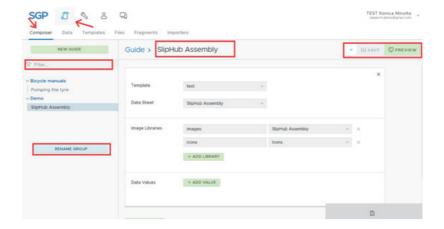
7 Press [Save] button for saving changes.

Tips

It is not necessary that all parameters have a value in all slides. The value field can be also empty.

2.4   Guide composer

The guide composer is a final step in creating a guide. The composer takes data, graphics files and templates and generate the guide which can be synchronized to the glasses.

Form description

Item	Description
Filter	Filters the guides according to the guide name. Simply write a part of file name, files are filtered dynamically, the result is displayed below filter.
Rename the guide	After clicking on the guide name in the upper bar, you can switch to edit mode and change the name of the guide.
Change folder group	For changing the folder group click the blue arrow to extract submenu. Click [Change group] action and choose the folder group.
Delete	For deleting a guide or folder click the blue arrow to extract submenu. Click [Delete].
Save	When you make changes to a guide, press [Save] button in the upper right corner to save the changes.
Preview	Open a preview of composed guide.

Creating the guide with one template definition
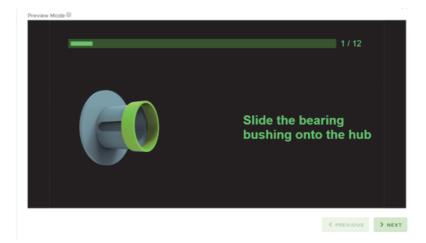
1 Go to page "Guides/Composer".

2 Click button [New Guide].

3 Fill in the Name field and choose the group that the guide belongs to. It is also possible to create a new group by selecting [New group] in combo box and filling in the field "Group name".

4 Press [Add] button.

   The new guide is created, the screen for composing the guide is opened.

5 Select the template in the Template combobox and data sheet in the Data Sheet combobox.

6 If there are graphics files to be displayed in the template click [Add Library] button. To the field "Key" write the library name used in the template definition. In the combobox select the library name for the requested graphics files. You need to repeat this step several times if you use graphics files from different libraries.

7 If you want to add a static information that is displayed on each slide at the same reeserver location, define it in the section "Data Values". In "Key" field write the parameter name, in "Value" filed write a value to be displayed.

8 Press [Save] button for saving changes.

9   Use the [Preview] button to see all slides in the generated guide.

10   For closing the preview use the small arrow in the upper right corner.

📖**Reference**
Use [Next] button in preview and check all pages.

You can fix any part (Files, Data, Template) separately and independently, the changes will be applied to the guide.

Creating the guide with more template definitions

It is possible to combine more templates in one guide (e.g. first and last pages are different).

1   Create the guide as for one template described above and define the first part of your guide.

2   For adding new template into your guide, click [Add Part] button.

📑**Tips**
It is possible to use templates, data sheets and files in more than one guide but remember that any change in these parts will affect all guides.

◎**Related setting**
The guide is imported to the devices after assigning guide to at least one user. The import runs automatically when the device is connected to wi-fi. The interval for data synchronization is configurable.

3 Workers administration

3 Workers administration

The "Workers" topic provides means for management of workers using the glasses. Workers are the end us-ers of the glasses, the workers do not need necessarily to access SG Platform.

The management allows for creating new workers, for setting their data and for assigning them selected guides.

Form description

Item	Description
Filter	Filters the workers according to assigned guides.

Creating a new worker account

1 Go to page "Work/Workers".

2 Click button [Create Worker].

3 Fill "Name", "PIN" and "QR code" fields. The fields "Name" and "QR" serve as login name to the device, "PIN" serves as a password. PIN must be a three-digit number.

4 Click [Create] button.

5 On the pop-up screen it is possible to select and assign the guides. Choose the guide by clicking the checkboxes. (The guides selection is optional, you do not need to choose anything.)

6 Click [Update] button to save guides selection.
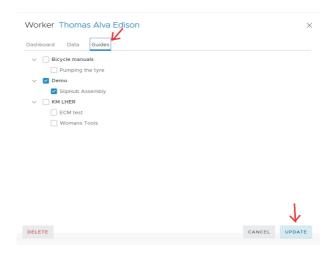
Assign guide to more workers

1 Go to page "Work/Workers".

2 Select workers by checking the box at the worker name.

3 Press the [Assign] button.

4 Select the guide to be assigned from the combobox.

5 Press the [Assign guide] button.

Edit the worker, assign more guides to one worker

1   Go to page "Work/Workers".

2   Click the worker name.

3   On the "Data" tab it is possible to change User name, PIN and QR code.

4   On the "Guides" tab it is possible to assign guides.

5   Do not forget to click [Update] button to save the changes.

Delete a worker

1   Go to page "Work/Workers".

2   Click the worker name.

3   In pop-up use [Delete] button to delete a worker.

4 Devices administration

4   Devices administration
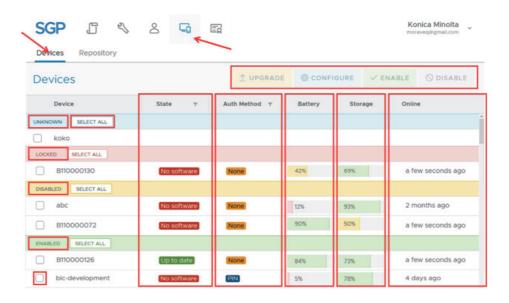
4.1   Devices

The "Devices" topic provides an overview of all your glasses devices. It is possible to check the status, state of battery, used storage capacity and the time of last synchronization between the glasses and SG Platform. The administrator of devices can change the status of the devices with this form and he/she can also update the SW of the device.

A device can be either unknown, disabled, locked or enabled for SG Platform:

- *Unknown device* is a new device that connects to SG Platform with your customer ID, but has not been approved yet by you to access your data. Click [Enable] to let the device access your data.
- *Disabled device* is a device that you have decided not to have access to your data any longer. You can reenable the device by clicking the [Enable] button.
- *Locked device* is a device to which a worker failed to authenticate. After three unsuccessfull logins, the device gets in locked state to prevent unauthorized access. You can unlock the device by clicking the [Enable] button.
- *Enabled device* is a device that has access to your data. You can disable the device by clicking the [Disable] button.

Form description

Item	Description
Device status category	Devices are grouped by their status to unknown, locked, disabled and enabled. You need to select a device and use upper right corner buttons to change status of a device.
Device selectors	You can select individual devices by checking out related checkboxes, or you can select all devices in a status category by [Select All] button.
Software state	You can read overview of device SW from the left-most status column. In order to upgrade the software, you can use the [Update] or [Configure] buttons in the top right corner.

Item	Description
Authentication method	You see current authentication method to log in the device. You can change the authentication method by clicking on the device or by [Configure] button. Available methods are • None – no authentication required • PIN – worker types in three-digit number that is cross-checked with his/her PIN stored in SG Platform • QR code – worker presents QR code with his/her name to get authenticated • QR and PIN – a combination of the two previous
Device status	Battery, storage and last synchronization is shown in the other status columns.

Unlock locked device

1   Go to page "Devices/Devices".

2   Choose the device by checking the checkbox.

3   Press [Enable] button.
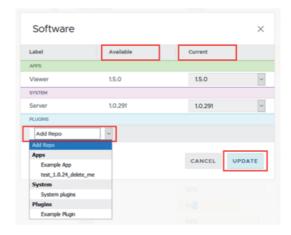
Disable the device (locking the device by administrator)

1   Go to page "Devices/Devices".

2   Choose the device by checking the checkbox.

3   Press [Disable] button.

Upgrade/Configure software in the device

1   Go to page "Devices/Devices".

2   Choose the device by checking the checkbox.

3   Press [Upgrade] or [Configure] button.

The device configuration screen is shown.

4   From "Add Repo" combobox select what type of software you want to upgrade – applications, server or plugins.

5   Column "Available" shows version currently installed on the selected device. Combobox in column "Current" shows available versions. Select the one you want to have installed on your device.

6   Press [Update] button.

📖**Reference**

It is possible to enable, disable and upgrade multiple devices at a time. Simply check out more devices.

5 Administration of SG platform users

5 Administration of SG Platform users

Users work with SG Platform to create content, provide remote assistance, and manage workers or devices.

5.1 Manage user roles

A user role specifies access rights for users. It is possible to create a new user role at the screen "Accounts/Roles".

There are two user roles defined by default for each customer:

- Platform admin:
  super admin role for the support
- Administrator:
  the company admin role, the user in this role can manage the devices and user accounts

Other user roles can be created by the administrator on her/his own. It is recommended to create:

- Editor:
  with the access and edit rights for "Work and Guide" topic
- Reader:
  with the access and read rights to "Work and Guide" topic
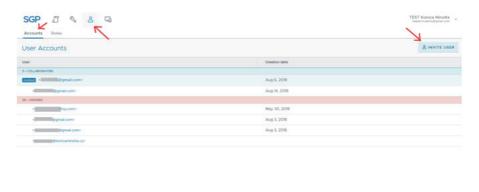
5.2 Manage user accounts

In the "Accounts/Accounts" form the administrator can create a new user account for SG Platform, manage the existing users and delete user accounts.

Invite new user

1   Go to page "Accounts/Accounts".

2   Click [Invite user] button.

3   Fill "Email" field and assign the role.

4   Press [Invite] button.

The invitation e-mail is sent to the user.

Edit or remove user

1   Go to page "Accounts/Accounts".

2   Click user name in the table.

3   In popup screen it is possible to change the user email and role assignment. Press [Update] button to save changes.

4   Press [Delete] button for remove user account.

6 Remote assistance
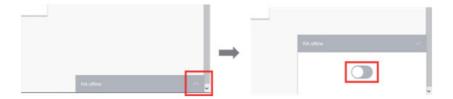
6 Remote assistance

Remote assistance is an application integrated in SG Platform. Remote assistance establishes the connection between a worker using the glasses and an assistant working at SG Platform. Remote assistance allows for sharing live video and audio from the glasses to the assistant. The assistant may stop the video and add content to a snapshot and the application streams the content back to the glasses in form of augmented reality information.

Start Remote assistance

1 Click on the arrow icon at the "Remote Assistance" area located in the bottom right corner.

The area unrolls and switch on/off is displayed.
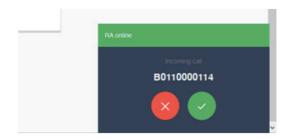
2 Switch the application on.

Application frame goes green and your name will become available for workers in the list of assistants in their application compound installed on their glasses.

Accept/decline incoming call

1 When "Remote assistance" is switched on and a worker selects you for an assistance call, you will be alerted with a call notification popping up in the bottom right corner in the area of the Remote assistance.

2 Click the red "Decline" icon to decline the call.

➔ Or click the green "Accept" icon to accept the call.

3 Wait few seconds for establishing the connection.

Audio and video streaming will appear in a dedicated window.
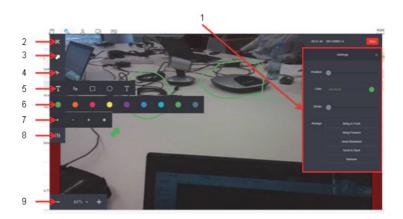
Create content for the worker

1 In the video window, click the [Camera] button located in the top left corner of the window.

Video streaming is paused and content creation tools are shown on left side of the window.

2 Select a tool you want to use for creating the content:

No.	Tool	Description
1	Object picker properties	
2	Closing button	Click to close editing mode and return to video streaming.
3	Moving pointer	Click and move over the snapshot. When clicked and pressed, the pointer movement is streamed to the glasses.
4	Object picker	Select and manipulate objects drawn on the snapshot. Editable object properties pop up in a window on the right side.
5	Object drawing	Select what object you want to draw: free drawing, rectangle, circle or text.
6	Color selector	
7	Line thickness	
8	Settings	
9	Zoom	

3 Create the content that gets live streamed to the glasses.

4 You can zoom in/out the snapshot with content by changing zoom in the left bottom corner.

Tips

The content is live streamed with the snapshot in its background. Audio is streamed in parallel so you can comment what you draw.

End a call

→ Click the red [Stop] button in the right top corner.

The stream window closes and the call is ended.

7 Building templates in JADE

7   Building templates in JADE

Templates are defined in JADE templating language. JADE provides a simple syntax to define templates and on basis of additional parameters, JADE can generate different variants of HTML code from one template.

7.1   JADE overview

Basic JADE syntax allows to define HTML code in slightly more compact form – JADE does not require closing tags, instead it uses indentation and it considers the first word in a line as a tag definition.

JADE	HTML
div#content div.block input#bar.foo1.foo2	<div id="content"> <div class="block"> <input id="bar" class="foo1 foo2"/> </div> </div>

Additionally, JADE allows to use Javascript or to define own parameters by non-outputs line starting with hyphen. This syntax simplifies repeated blocks of HTML.

JADE	HTML
- var x = 5; div ul - for (var i=1; i<=x; i++) { li= i + ". Hello" - }	 1. Hello 2. Hello 3. Hello 4. Hello 5. Hello

JADE also supports conditions (IF statements), loops and function definitions (mixins) that allow for creating a complex HTML code from relatively simple JADE syntax. And the HTML may be generated with respect to specific requirements as specified in the parametrization of mixins.

JADE	HTML
mixin book(name, price) div&attributes(attributes)= name + " for " + price + " €" +book("Book A",10)#first +book("Book B",15)(title="book b") +book("Book C",11).last	<div id="first">Book A for 10 €</div> <div title="book b">Book B for 15 €</div> <div class="last">Book C for 11 €</div>

7.2   SG Platform JADE components

SG Platform defines a set of mixins representing the graphical elements commonly used in the guides. SG Platform also defines another set of mixins for positioning of elements within a template. The most important mixins are

- +box – mixin encapsulates its content in a single box that is placed as a whole
- +vbox – mixin places its contained elements vertically on each other
- +hbox – mixin places its contained elements horizontally on each other
- +if-value-exists – mixin considers its contained elements only if condition holds
- +text – mixin inserts a line of text
- +image – mixin inserts an image
- +progress-bar – mixin inserts a progress bar

All these mixins create HTML components that can be further styled. SG Platform uses stylus formatting of CSS. Examples of frequently used style classes are
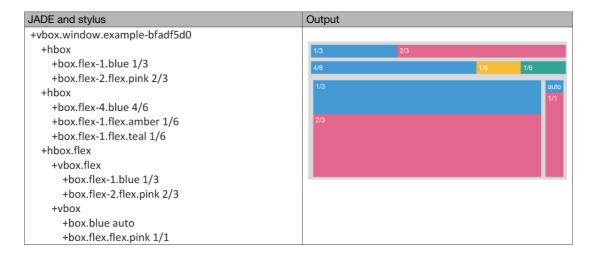
- window – window reserves all available space, i.e. it is the main frame of the page
- flex – flex allows for flexible placement of a box in available space
- flex-n – flexible place in n^{th} part of available space

7.3   SG Platform JADE examples
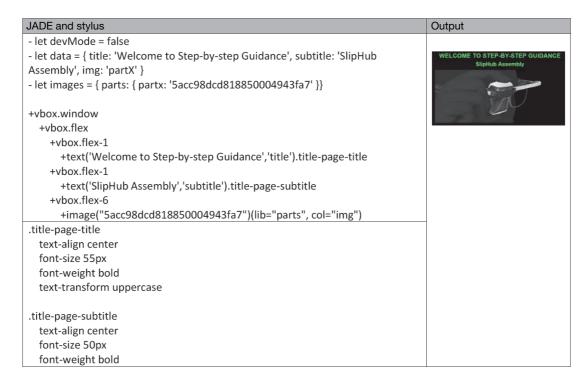
7.3.1   Box placement

JADE and stylus	Output

+vbox.window.example-bfadf5d0
  +hbox
    +box.flex-1.blue 1/3
    +box.flex-2.flex.pink 2/3
  +hbox
    +box.flex-4.blue 4/6
    +box.flex-1.flex.amber 1/6
    +box.flex-1.flex.teal 1/6
  +hbox.flex
    +vbox.flex
      +box.flex-1.blue 1/3
      +box.flex-2.flex.pink 2/3
    +vbox
      +box.blue auto
      +box.flex.flex.pink 1/1	

7.3.2   Title page layout
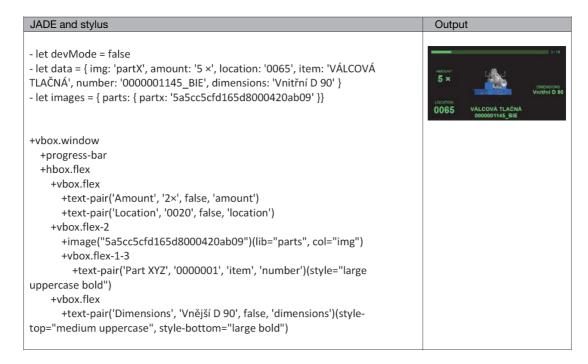
Title page shows title of a presentation, subsidiary information and an image.

JADE and stylus	Output

- let devMode = false
- let data = { title: 'Welcome to Step-by-step Guidance', subtitle: 'SlipHub Assembly', img: 'partX' }
- let images = { parts: { partx: '5acc98dcd818850004943fa7' }}
 	
+vbox.window
  +vbox.flex
    +vbox.flex-1
      +text('Welcome to Step-by-step Guidance','title').title-page-title
    +vbox.flex-1
      +text('SlipHub Assembly','subtitle').title-page-subtitle
    +vbox.flex-6
      +image("5acc98dcd818850004943fa7")(lib="parts", col="img")	

.title-page-title
  text-align center
  font-size 55px
  font-weight bold
  text-transform uppercase
 	
.title-page-subtitle
  text-align center
  font-size 50px
  font-weight bold	

7.3.3 Picking layout

JADE and stylus	Output

- let devMode = false
- let data = { img: 'partX', amount: '5 ×', location: '0065', item: 'VÁLCOVÁ TLAČNÁ', number: '0000001145_BIE', dimensions: 'Vnitřní D 90' }
- let images = { parts: { partx: '5a5cc5cfd165d8000420ab09' }}
 	
+vbox.window
  +progress-bar
  +hbox.flex
    +vbox.flex
      +text-pair('Amount', '2×', false, 'amount')
      +text-pair('Location', '0020', false, 'location')
    +vbox.flex-2
      +image("5a5cc5cfd165d8000420ab09")(lib="parts", col="img")
      +vbox.flex-1-3
        +text-pair('Part XYZ', '0000001', 'item', 'number')(style="large uppercase bold")
    +vbox.flex
      +text-pair('Dimensions', 'Vnější D 90', false, 'dimensions')(style-top="medium uppercase", style-bottom="large bold")	

7.3.4 Image with instructions

JADE and stylus	Output

- let devMode = false
- let data = { img: 'partx', col1: 'VLOŽ GUMOVÉ TĚSNĚNÍ', icon1: 'warning', col2: 'VLOŽ POUZDRO', col4: 'ZAJISTI POJISTNÝM KROUŽKEM', icon2: 'tool' }
- let images = { parts: { partx: '5a5cc5cfd165d8000420ab09' }, icons: { warning: '59c8309eb3e3923850c10fef', tool: '5a5cc6d7d165d8000420ab15'} }
 	
+vbox.window
  +progress-bar(77, 81)
  +hbox.flex
    +vbox.flex
      +image("5a5cc5cfd165d8000420ab09")(lib="parts", col="img")
    +vbox.flex.spaces
      each n in [1, 2, 3, 4]
        +if-value-exists('col' + n)
          +hbox
            +box.flex-1.cross-center
              +if-value-exists('icon' + n)
                +image("59c8309eb3e3923850c10fef")(lib="icons", col="icon"+n).smallIcon
            +box.flex-5.cross-center
              +text('Row text ' + n, 'col' + n).large.bold
.smallIcon
  width 100px
  height 100px	