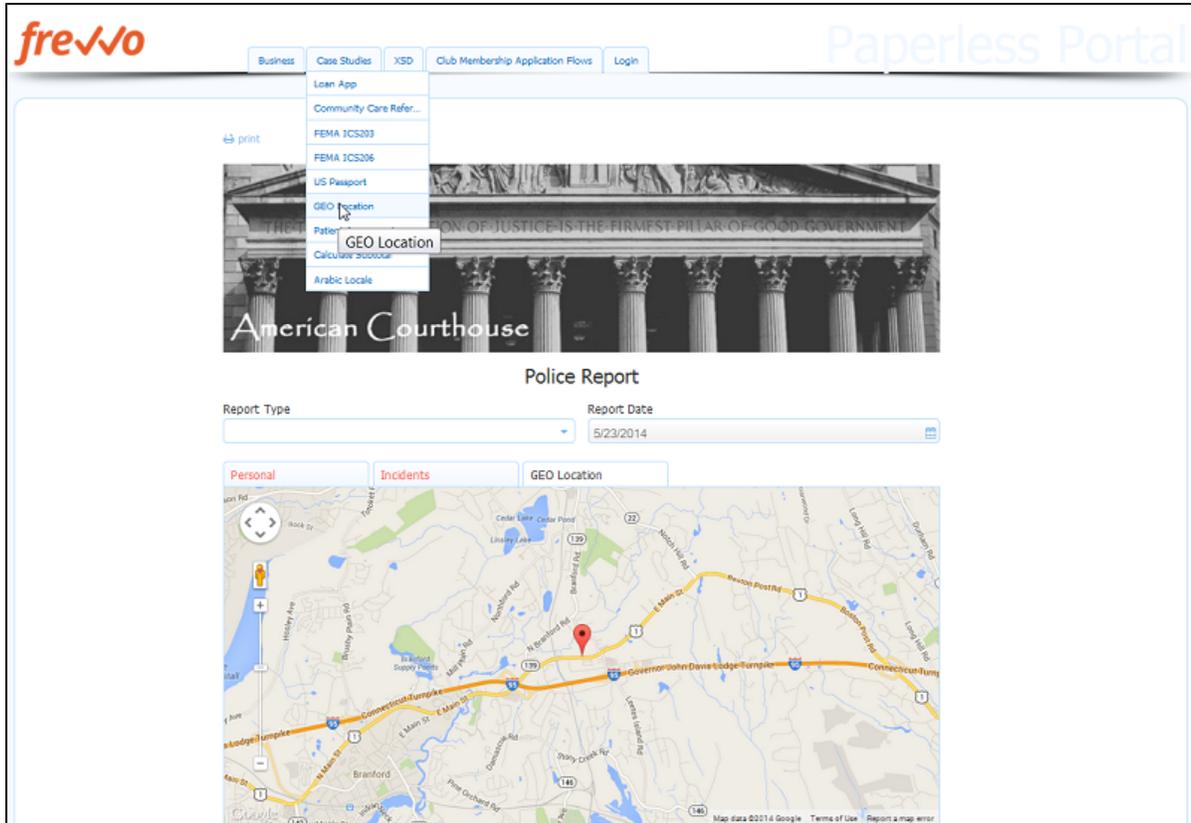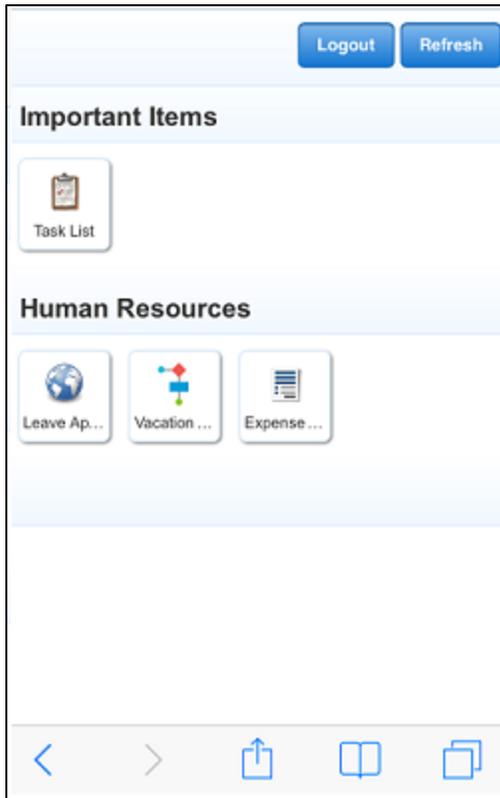# Spaces

A Live Forms space is a web site that organizes and displays applications, forms, workflows, tasks, etc. A space has a tab for each application, and each tab has a drop-down list of the deployed forms/flows in that application. Forms/flows with a visibility of public in tenant or private appear when the user logs into Live Forms. When you click on a form or flow name, the space opens the form in the page. A space also has a home panel and two optional panels at the left and at the bottom of its page. You can edit the content of any of these panels; you can also choose not to include the optional panels. You can apply a style to a space as you do to forms/flows. The selected style will be propagated to forms, flows and the Task List.

Spaces can be used to simplify accessing forms/flows/Task List from your iPhone or iPad. You can add thumbnail icons to your forms and flows and the space will display on mobile devices as shown below.

Important Items
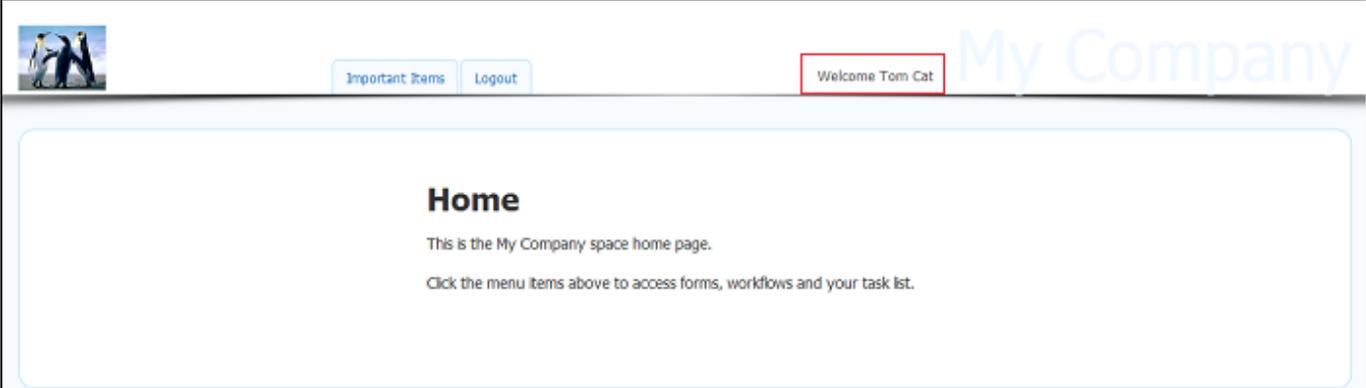
Task List

Human Resources

Leave Ap... Vacation ... Expense...

On This Page:

Each designer user in a Live Forms tenant can create, edit, and delete his or her own spaces. You can share the URL to a space with others inside or outside your organization.

If you share a space, you are essentially creating a website — anyone who has the URL can view the space. Whether or not someone can actually open a form or flow and use it depends on the Visibility property of the form. A form or flow must be Public for anyone to use it. An outside user will be blocked if he attempts to open a non-public form, and may even lose his session credentials with the space. Forms/flows must be deployed to production for them to automatically appear in an application tab menu. If the visibility of a form is restricted to a specific role via the A CL feature, the form/flow will not appear on the space menu unless the logged in user has been assigned that role or they are the designer.

> A form action display message formatted using html tags will not work like they do in your own customer web site. XHTML in the display message is currently unsupported in Live Forms spaces.

Notice the First and Last Names of the logged in user appear in the upper right corner.

Create a New Space

When you create a space, Live Forms creates a tab on the space for each of your applications — and also adds Task List, My Account, Shared Items, Home and Login/logout tabs. Refer to the Space Content topic. The application tabs display a list all of all deployed forms/flows in that application; undeployed forms and flows are not included. For testing purposes, forms/flows with a visibility setting of private are added to the space menu if the user is logged in as a designer. A form/flow with a visibility set to public in tenant, cannot be accessed unless the user logs in to the Live Forms tenant. If the visibility of a form/flow is restricted to a specific role via the ACL feature, the form/flow and it's associated tab will not appear on the space menu unless the logged in user has been assigned that role or they are the designer. If an application has no forms/flows, Live Forms doesn't create a tab for it.

You create a new space from the spaces home page.

1. Log in as the designer, and then click on **Spaces** .
2. Click

   to create a new space, enter a Space ID. The Space ID must be unique, start with a letter, cannot contain spaces or special characters and cannot exceed 16 characters. Non-ascii characters are not supported in a space id.
3. Enter a Space Name - this name will display in the top right section of the space. The Space Name should not exceed 16 characters but you can type spaces here.
4. Click **Create.**

The new space is added to the list.
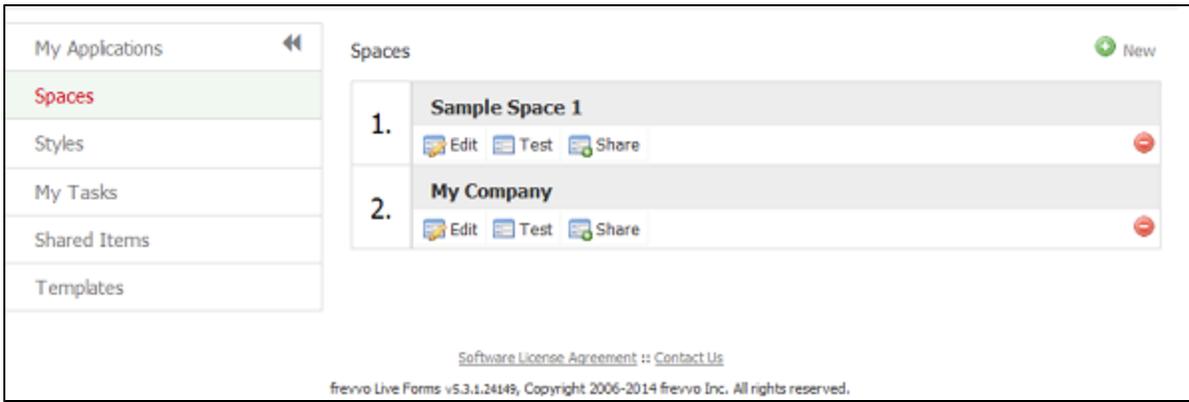
The spaces home page lists any spaces that you've already created. On this page, you can:

- Click

  to create a new space.
- Click

  to delete an existing space.
- Click

  to edit a space.
- Click

  to test a space.
- Click

  to share a space.

> If you add or remove applications or add or remove forms or flows from applications, and you want to update the space that contains them, a quick way to do that is to delete the old space and create a new one. You can use the same name as the original space. The new space will contain all your current applications, and all deployed forms, and flows. Customization made to the space, such as adding your logo or HTML will have to be redone. If you do not want to redo your customizations, edit the Tab Menus manually.

Relative URLs

Menu items are created using URLs relative to the application root, i.e. /frevvo/web/… The use of Relative URLs can help avoid issues that might be cause by hardcoded hosts, protocols (http vs https) and ports and improves portability. It is the recommended best practice to use Relative URLs when Adding a Tab and Forms/Flows to the Space menu.

When you create a new space, you will see:

Relative URIs

```
* Important Items
** Task List|/frevvo/web/tn/mycompany/subject/(subject.id)/tasks?embed=true
** My
Account|/frevvo/web/tn/mycompany/subject/(subject.id)/profile?embed=true&edit=true
** Shared
Items|/frevvo/web/tn/mycompany/subject/(subject.id)/shared?embed=true&hidenav=true
*HR
** Expense
Report|/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-92e3-6ad8d58e506a/space/v73space/
home?embed=true
```

instead of

Hardcoded URLs

```
Important Items
** Task
List|https://app.frevvo.com:443/frevvo/web/tn/mycompany/subject/{subject.id}/tasks?emb
ed=true
** My
Account|https://app.frevvo.com:443/frevvo/web/tn/mycompany/subject/{subject.id}/profil
e?embed=true&edit=true
** Shared
Items|https://app.frevvo.com:443/frevvo/web/tn/mycompany/subject/{subject.id}/shared?e
mbed=true&hidenav=true
*  HR
** Expense
Report|https://app.frevvo.com:443/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-92e3-6a
d8d58e506a/space/mycompany/home?embed=true
```

You may also notice that Share links for the Important items now show parenthesis instead of curly braces. You will see the parentheses in any newly created space. Tomcat 8.5 doesn't allow curly braces in URLs since they are not valid URL chars and deemed a security vulnerability. Live Forms currently supports parenthesis as well as curly braces, however, support for curly braces {} will be dropped in a future releases . Use parenthesis () moving forward.

Edit a Space

Click

to display your space in the space editor. The editor displays your space as it will appear if you share it with others. The editor also includes a Properties panel at the left of the space, a toolbar at the top with

Finish and

Cancel icons, and editing tools you can use for the three panels in the body of the space, the logo area, and the application and Task List tabs.

Edit Space Properties

Use the Properties panel to edit the the space Name, choose a different Width, or apply a style to the space. If you change any of the properties, Live Forms refreshes the space so you can see your changes.
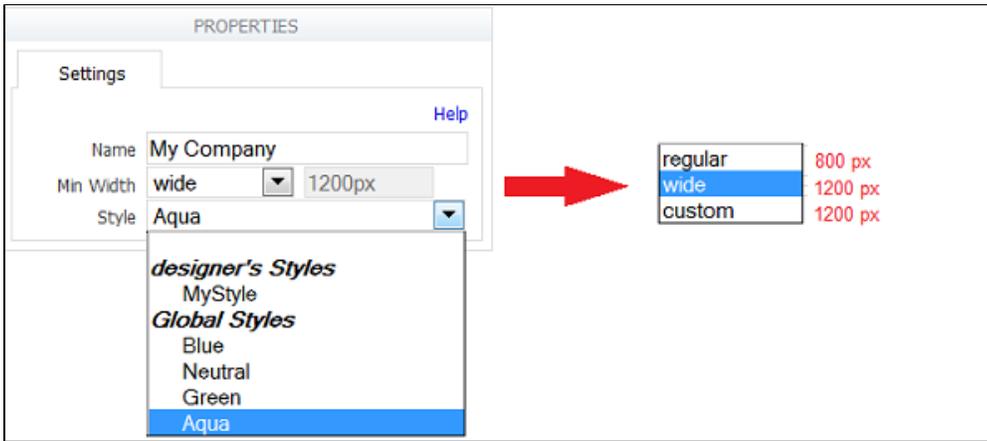
When calculating the width of your space, consider the width of your forms plus the added space needed to fully display your forms when performing a task from the Task List. Showing/Hiding the left panel may also be a factor.

Show/Hide the Login/Logout Link

It is possible to hide the login/logout link in a space. You may want to do this if your users are accessing a Live Forms space through your own portal using your own authentication system and the login/logout function is handled external to frevvo.

The Login link checkbox is checked by default so when you create a new space the login link is visible. To hide it, uncheck the Login link checkbox.
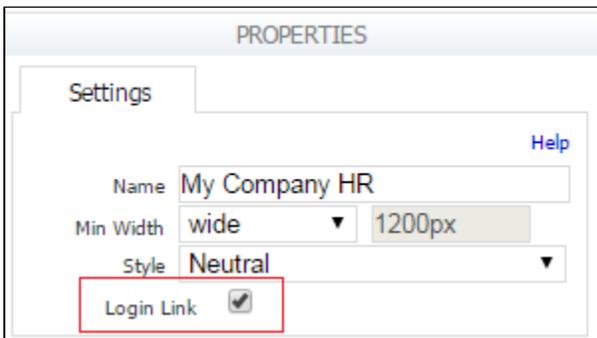
The Login link will be checked when migrating Spaces from previous versions of Live Forms.

The Login/logout link is not relevant for tenants configured to use SSO. Spaces in tenants using the SAML or Azure SAML Security managers do not display the login/logout link.

Edit the Panels and Logo

You can edit all three panels in your space, and you can show or hide the left panel and bottom panel. You can also remove or replace the logo. The logo filename can contain up to 50 characters.

- Click

  to edit a panel, upload a graphic file to use as a logo, or to edit the application tabs.
- Click

  to remove the logo.
- Click

  to either hide or show the left and bottom panels. When hidden, the editor displays the panels grayed out.

When you edit a panel, Live Forms displays its contents. You can add your own content and format it using HTML tags.

Modifying the Default Copyright Panel

The designer can modify the default copyright notice located in the bottom panel. The default content is:

Your Copyright Notice. All rights reserved.
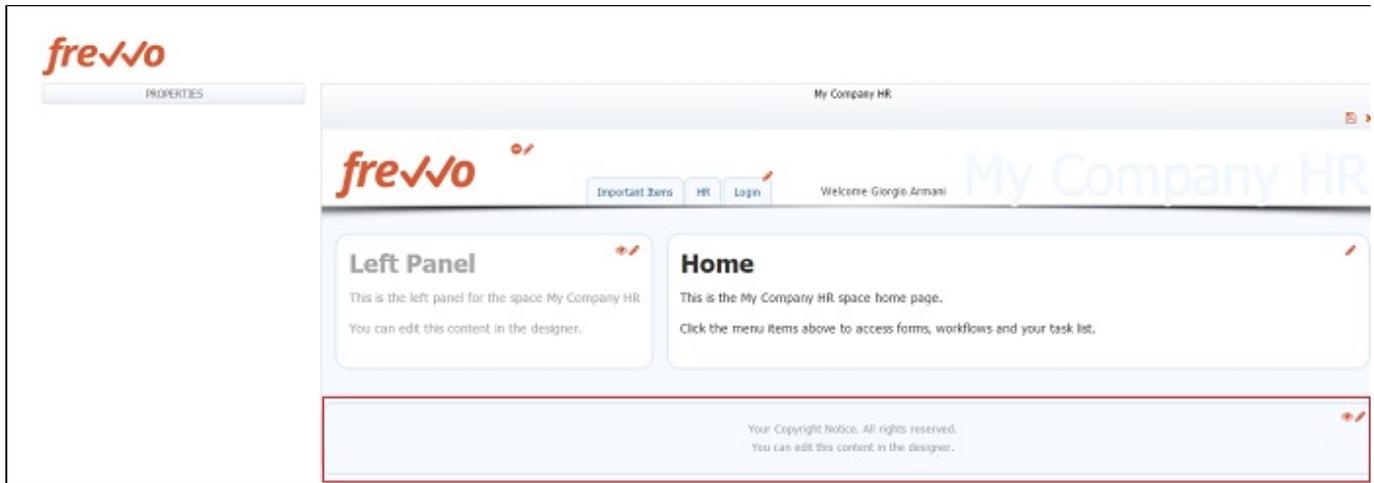You can edit this content in the designer.

Click the

icon to edit the content.

Click the

icon to hide the panel.

Changing the Default logo

To replace the logo, browse for the graphic file you want. Click the

Finish icon when you're done.

> In-house customers can change the Live Forms default logo to your company logo with a configuration property. You can configure the

frevvo.logo.URL property where the value is the URL to your company logo in the <frevvo-home>\tomcat\conf\frevvo-config.properties file. Click here for the details. This configuration property will change the default logo to your image for all of Live Forms including Spaces.

Adding a Tab and Forms/Flows to the menu

Click

to edit the application tabs. You can use the editor shown below to add, delete, or rearrange the tabs in your space, and add or remove forms or flows from the drop-down tab menus. The editor uses this format:

- Text that begins with a single asterisk is a tab name — * **Human Resources** is a tab name.
- Text that begins with two asterisks is a form or flow name — ** **Expense Report** is a form or flow name.

To add a new tab, type its name and begin it with a single asterisk. Use two asterisks for a form or flow name. Notice that a form or flow name is followed by a URL that identifies it. For example, the full entry for the Human Resources > Expense Statement form in this example is:

** **Expense Statement|http(s)://<server>:<port>/frevvo/web/tn/mycompany.com/u/8aa27da6-4bef-427c-92e3-6ad8d58e506a/app/_N4cF4ZuwEeCwk5wyBHqHrQ/flowtype/_g6-MkJu5EeCwk5wyBHqHrQ?_method=post&embed=true**

> It is recommended that you use Relative raw link URLs when adding forms/flow to your Space menu. To make the URL above relative, remove the protocol, server and port information.
> ** **Expense Statement|/frevvo/web/tn/mycompany.com/u/8aa27da6-4bef-427c-92e3-6ad8d58e506a/app/_N4cF4ZuwEeCwk5wyBHqHrQ/flowtype/_g6-MkJu5EeCwk5wyBHqHrQ?_method=post&embed=true**
>
> Notice there is only **one forward slash - / - after the pipe symbol** in the example.

To add a form or flow name to a tab, you'll need its URL. Follow these steps:

1. On the applications home page, click

   to edit the application that contains the form or flow you want to add.
2. Click the

   button to open the Share Form panel for the form you want.
3. Click **Raw form link** to display the raw URL.
4. Copy the URL, then in the tab editor, type a **|** character after the form name. Paste the form's URL after it.
5. Click **Finish** to update the tab menus.

Forms/flows in a space should be located on the same Live Forms Server. They can be created by other designer users in same tenant or a different tenant.

Forms/Flows displayed on the Space menu will only show the forms/flows which the logged in user is authorized to view.

If you are using a tenant configured for a container security manager and you want to allow anonymous access to your forms/flows, you must add a public URL to your space menu.

Refer to the Space Content topic for tips and information about more "cool" items you can add to your Space menu.

How to Locate a Form or Flow using the Share URL

Let's say you created a Space or added a form/flow to your space and now you must find that form or flow to make changes to it. The Share URL for a form/flow can be used to determine the Live Forms designer account where a form/flow is located.

⌄ Click here for the details and an example

A designer must make changes to a form/flow in their company space at the request of a co-worker. The requesting employee logs into the company space, selects the form/flow from the menu and copies the form/flow instance URL from the browser. An opaque URL such as the one shown below is emailed to the designer. The designer can't remember what user, app, form/flow name that opaque url maps to and uses the lookup feature to find the form/flow they need to fix/enhance.

```
https://staging-app-72.frevvo.com/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-92e3-
6ad8d58e506a/space/mycompany?mi=12&_formTz=America%2FNew_York&locale=en_US,eng_US,en
g,en
```

Paste the opaque URL into your browser. Remove **everything after the uuid.** Replace it with **lookup** after the slash. Press the **Enter** key. Login to the tenant (determined by the tenant name after the /tn in the URL) as an admin, designer or publisher user if presented with the login screen.

```
https://staging-app-72.frevvo.com/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-92e3-
6ad8d58e506a/lookup
```

The uuid is converted to the user id of the designer who owns the space.

```
https://staging-app-72.frevvo.com/frevvo/web/tn/mycompany/user/designer
```

Login to the tenant as the specified user and edit the space menu to get the raw form/flow link. Remove everything after the formtype, flowtype, value in the opaque Raw Form/flow link. In the example shown, you would remove all characters starting with the question mark ❓

```
https://staging-app-72.frevvo.com:443/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-9
2e3-6ad8d58e506a/app/_ngEekDxNEeWSMvnDVXXIRg/flowtype/_DxUxwZ8eEeScQa8_3O7FuQ?_metho
d=post&embed=true
```

Add /lookup to get the application and form/flow name

```
https://staging-app-72.frevvo.com:443/frevvo/web/tn/mycompany/u/8aa27da6-4bef-427c-9
2e3-6ad8d58e506a/app/_ngEekDxNEeWSMvnDVXXIRg/flowtype/_DxUxwZ8eEeScQa8_3O7FuQ/lookup
```

The workflow named Example 3 - PO for Sales Review is located in the tenant mycompany, in the designer user account, in the application Purchase Order Completed.

```
User: designer
Application: Purchase Order Completed
Flow: Example 3 - PO for Sales Review
```

Test a Space

Click

to test a space. The space is displayed as it will look to anyone you gave its URL to. If a user has the correct credentials, he can fill out and submit forms and flows. Close the window when you're done testing.
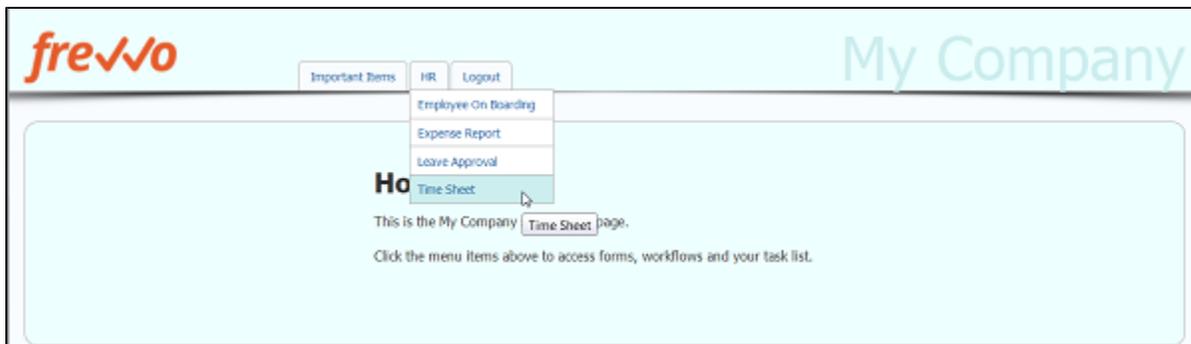
Share a Space

Click

to share a space. Live Forms displays your space's URL — this is the link you distribute to those who you want to view your space. Remember, whether or not someone can actually open a form or flow and use it depends on the Visibility property of the form.

Share

```
http://localhost:8082/frevvo/web/tn/mycompany.com/user/designer/space
/mycompanyhr
```

1. Use the above link to access your space.

You may use either an http or https Space URL. However if you use https to access the Space then all the forms/flows in the space must also have https URLs. And if you use http to access the Space then all the forms/flows must all have http URLs. Spaces do not support a mix of http and https.

You may notice a slight difference when logging into a Space. When you access your space with the Share URL, then click the Login tab, the whole screen becomes the Live Forms login screen. Enter your credentials to view your space.
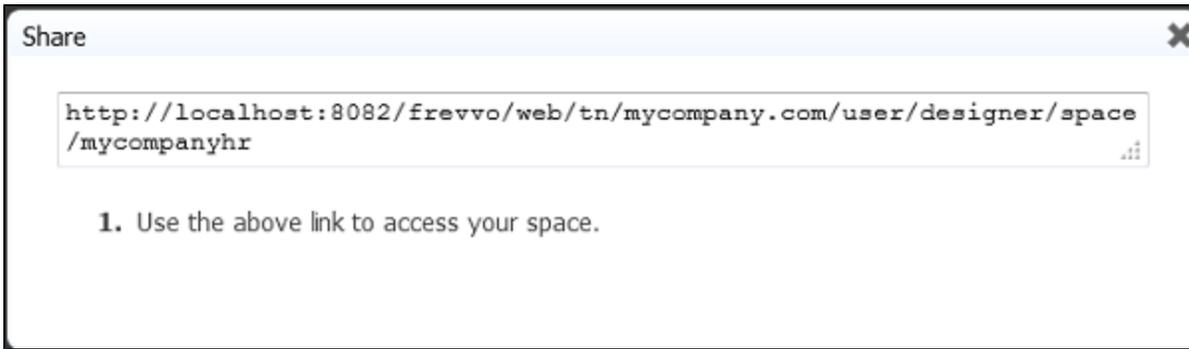

Space Content

Your space contains links for your users to easily access any forms and flows your designers created in your tenant. Your space also automatically contains the following:

- Task List
- My Account
- Shared Items
- Home
- Operational Reports - Active Processes, Submission Failures, Recent Submissions, Productivity. These Reports are only accessible to the tenant admin. Refer to Operational Reports in a Live Forms Space for information about the links to these reports and Live Forms spaces.
- Login/Logout - You can hide this tab if you choose.

> Shared Items (Submissions View or Edit), Home, My Account, and Report links are automatically added under the Important Items tab along with the Task List and Login/Logout when your space is created. Existing spaces must be manually edited as described below to add these items.

To manually add these and other useful features to your space, follow the instructions described in detail below.

- Form/Flow Submissions View or Edit.
- Home Link
- My Account link
- Anonymous signup form

> Container managed security tenants do not render the login/logout tab in use or edit mode in a Live Forms space.

Adding the Task List

The Task List link is automatically added to the tab called "Important Items" when you create a space. If you delete it from the menu and need to added it back, add this link:

```
* Important Items
** Task List|/frevvo/web/tn/<your tenant name>/subject/(subject.id)/tasks?embed=true
```

Adding Form/Flow Submissions

Spaces can also contain form submissions. Copy/Paste the Shared Item URL and append the URL parameter ?embed=true&hidenav=true. Here is a tab menu item link for Shared Items:

```
 Shared Items|/frevvo/web/tn/<your tenant
name>/subject/(subject.id)/shared?embed=true&hidenav=true
```

The user must log into the space to see the shared items. And once logged in they will only see submissions for the forms and flows to which they have been granted either submission view or edit permission. The designer configures these permissions using the Access Control wizard. If a user is not authenticated to view the form/flow submissions, then the error message "*Access Denied. Authentication Required.*" will display.

> Shared Items are currently only accessible on desktop browsers. Mobile browsers will support this in a future release.

An alternate method of adding shared submissions to your spaces is to add the URL directly to each form/flow as shown in the example below. To do this:

1. Right click the Submissions button for the form or flow submissions you want to add to your space
2. Append ?embed=true to that URL
3. Add that URL to your space menu as shown below.

Note that the server host and port, tenant name, username, application and formtype/flowtype ID will be different then the sample show below as they are specific to your particular form or flow's submissions.

```
* Documents
** Membership
Applications|/frevvo/web/tn/mytenant/user/designer/app/_JTJEeOtUsA2sMV2cg/flowtype/_JT
oEeOtUsA2sMV2cg/submission?embed=true
** Board
Approvals|/frevvo/web/tn/mytenant/user/designer/app/_JTJEeOtUsA2sMV2cg/flowtype/_gJl0E
eOtUsA2sMV2cg/submission?embed=true
** Approved
PTO|/frevvo/web/tn/mytenant/user/designer/app/_JTJEeOtUsA2sMV2cg/formtype/_KCREeOtUsA2
sMV2cg/submission?embed=true
```

Adding a My Account link

You can add a link to the user's My Account page. This page lets the user change their password, email address and configure task notification emails. Here is the tab menu item for My Account:

```
** My Account|/frevvo/web/tn/<your tenant
name>/subject/(subject.id)/profile?embed=true&edit=true
```

Adding an Anonymous Signup form link

You can add the URL to an anonymous signup form for your tenant. Users can create a user account in your tenant using this published registration URL. The designer does not have to create the form, the URL shown below accesses the Add User Anonymous Register form included with Live Forms. When this form is submitted, the user receives an activation email which enables the account.

You must check Anonymous Users in your tenant to take advantage of this feature. Also, there is an invisible control on this form which requires the tenant name. The form will not submit if this field is left blank. Append the _data parameter to initialize the control with your tenant name:

Cloud Customer:

If you are a Live Forms cloud customer, follow these steps to add the Anonymous Signup form to your space menu:

1. Edit the space menu.
2. Click

   to edit the space menu.
3. Add the URL shown below under the menu Tab where you would like the form to be displayed - remember to provide your tenant name in the _data parameter.

```
**
Signup|https://app.frevvo.com:443/frevvo/web/tn/d/user/frevvo/app/_bDd4YX76EduXFsA4l9R
QeQ/formtype/_NQascBXoEd-Cn_oBMDPlNQ?_method=post&embed=true&_data=(Tenant:"<your
tenant name>")
```

4. To add it as a tab, precede the word Signup with one asterisk instead of 2.

5. To add it as a selection under the Important Items tab, precede the URL with 2 asterisks and place it in the menu under the * Important Items entry.

6. Save your changes.

In-house Customer:

If you are a Live Forms in-house customer, follow these steps to add the Anonymous Signup form to your space menu:

1. Edit the space menu.
2. Click

   to edit the space menu.
3. Add the URL shown below - remember to provide your Live Forms server and port information and your tenant name in the _data parameter.

```
** Signup|http://your server
host:port/frevvo/web/tn/d/user/admin/app/_bDd4YX76EduXFsA4l9RQeQ/formtype/_NQascBXoEd-
Cn_oBMDPlNQ?_method=post&embed=true&_data=(Tenant:"<your tenant name>")
```

4. To add it as a tab, precede the word Signup with one asterisk instead of 2.

5. To add it as a selection under the Important Items tab, precede the URL with 2 asterisks and place it in the menu under the * Important Items entry.

6. Save your changes.

Adding Operational Reports

Both in-house and online customers can add Operational Reports to an existing space by simply adding `** |<FREVVO_REPORTS>` to the space menu. Follow these steps:

1. Edit the space menu.
2. Click

   ![edit icon]

   to edit the space menu.
3. Add the `** |<FREVVO_REPORTS>` keyword to the space menu. In the example, the Operational Reports display under the **Important Items** tab,

```
* Important Items
** Task List|/frevvo/web/tn/mycompany/subject/(subject.id)/tasks?embed=true
** My
Account|/frevvo/web/tn/mycompany/subject/(subject.id)/profile?embed=true&edit=true
** Shared
Items|/frevvo/web/tn/mycompany/subject/(subject.id)/shared?embed=true&hidenav=true
**
Home|/frevvo/web/tn/mycompany/u/e5a0e839-1026-4bcf-92a0-5c8e4db9685e/space/test/home?e
mbed=true
** |<FREVVO_REPORTS>
```

4. If you want to customize the names of the 4 reports, add the custom names for the 4 reports in front of the pipe symbol preceeding the <FREVVO_REPORTS> keyword.The Reports will be named Active Flows for Tenant, Submission Errors, Resent Submission Activity, Workflow Bottleneck Analysis if the space menu is modified as shown in the code box below.

```
* Important Items
** Task List|/frevvo/web/tn/mycompany/subject/(subject.id)/tasks?embed=true
** My
Account|/frevvo/web/tn/mycompany/subject/(subject.id)/profile?embed=true&edit=true
** Shared
Items|/frevvo/web/tn/mycompany/subject/(subject.id)/shared?embed=true&hidenav=true
**
Home|/frevvo/web/tn/mycompany/u/e5a0e839-1026-4bcf-92a0-5c8e4db9685e/space/test/home?e
mbed=true
** Active Flows for Tenant|Submission Errors|Resent Submission Activity|Workflow
Bottleneck Analysis|<FREVVO_REPORTS>|<FREVVO_REPORTS>
```

5.If you want the Operational Reports to display under a customized tab instead of under the **Important Items** tab, add the name of the Report tab preceded by a single asterisk followed by the pipe symbol followed by the <FREVVO_REPORTS> keyword.

```
* Important Items
** Task List|/frevvo/web/tn/mycompany/subject/(subject.id)/tasks?embed=true
** My
Account|/frevvo/web/tn/mycompany/subject/(subject.id)/profile?embed=true&edit=true
** Shared
Items|/frevvo/web/tn/mycompany/subject/(subject.id)/shared?embed=true&hidenav=true
**
Home|/frevvo/web/tn/mycompany/u/e5a0e839-1026-4bcf-92a0-5c8e4db9685e/space/test/home?e
mbed=true
* My Reports|<FREVVO_REPORTS>
```

6. Save your changes.

Locale Preference for Spaces

Space URLs, appended with a locale parameter, take precedence over locales appended to individual forms/flows in the space. As expected, if no locale parameter for the space is found, the browser setting is used.

Spaces and Mobile Devices

You do not have to use Spaces to access your mobile forms but it is a convenient way to do so. Simply bookmark the space URL on your mobile device to access it. You can add icons to your forms and flows which will display on mobile devices when you access the space. Spaces can be a valuable tool for testing your forms/flow on the iPhone and iPad.

> Selecting the Excel export or Download to CSV features the when viewing submissions from the **Shared Items** tab (inside or outside of a space) on an IOS device (iPad,iPhone), may require the installation of an application to edit and save .xls files. This requirement is browser specific.

Refer to the Employee On Boarding tutorial for more information on Spaces and mobile forms design.

Of course, you can still embed your forms and flows in your own internet.