PAYAO beta User's Guide



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The Systems Biology Institute
Okinawa Institute of Science and Technology

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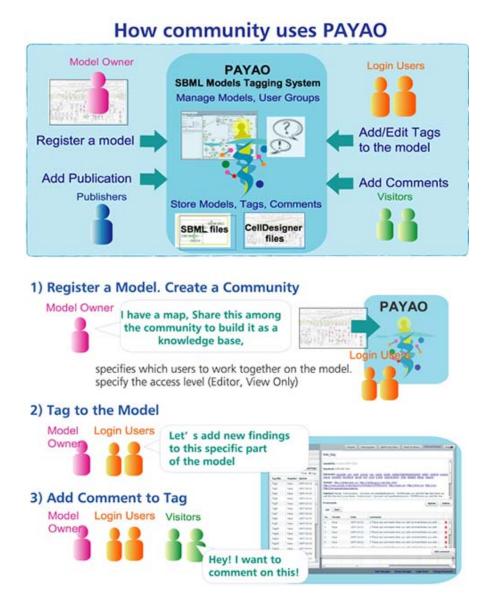
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1. What is Payao

"Payao" aims to enable a community to work on the same models simultaneously, insert tags to the specific parts of the model, exchange comments, record the discussions and eventually update the models accurately and concurrently. "Payao" reads the models in Systems Biology Markup Language (http://sbml.org) format, displays them with CellDesigner, a process diagram editor (http://celldesigner.org), and provides an interface for adding tags and comments to the models for the community members.

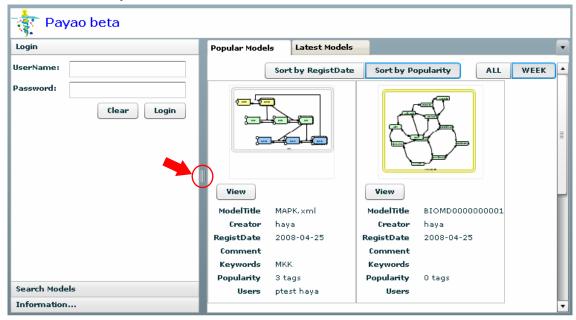
PAYAOLOGUE" (http://www.payaologue.org) is the community site to tag the gene-regulatory and biochemical network models using "**Payao**" system.



2. Payao and Models

When you access to PAYAO site, the following screen will be displayed.

In the following example, two models are listed in the right panel. These models are available for every visitor to the site.



When you drag the bar indicated as the red arrow, you can adjust the width of the left and right panels.

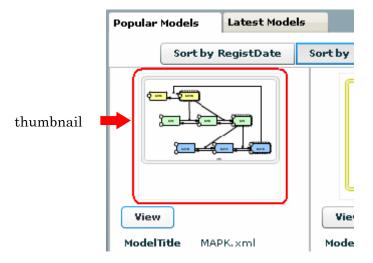
In the PAYAO system, you can set the access control by specifying the privileges by the following user categories:

Users	Privileges
Guest	All the visitors to the PAYAO site.
	Guest users do not have any User ID to login.
Login User	Registered users.
	Login users can register a model, and set the privilege for
	view, add tags or add comments to the model.
Model User	Model users are a Model (Model Owner) who register the
	model and the login users who have the privileges to
	view/add tags/add comments to the model.
	The Model Owner owns all the privileges to the
	registered model.

Before logging in, the models that can be accessed by all the users are displayed on the screen. When you login, only the models to which the registered users can access are displayed.

2.1. View a Model

You can display the model by clicking the thumbnail or [View] button.



2.2. Popular Models

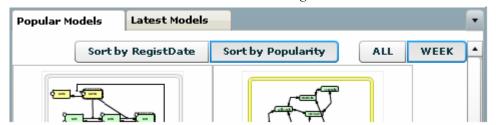
Popular models are the models which receive the tags most.

By default, the models which have received leading number of tags in a week are displayed on the screen.

[ALL] button: all the models will be displayed on the screen.

[WEEK] button: you can change the view to the list of models which

receives the tags most in a week.



[Sort by RegistDate] button: Sort by the date when the model was registered.

Click the button repeatedly, the sort order will

toggle.

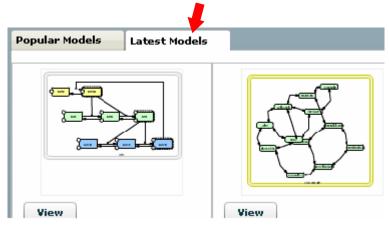
[Sort by Popularity] button: Sort the models by popularity. Click the button

repeatedly, the sort order will toggle.

2.3. Latest Models

In the [Latest models] tab, the models which receive tags and updated in a week are listed.

You can display the model by clicking the thumbnail or [View] button.



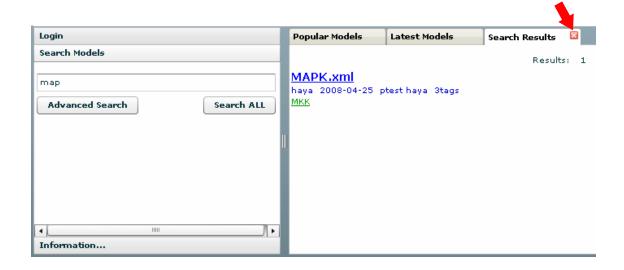
2.4. Search Models

In the left pane, click [Search Models] header to display the [Search Models] interface.



Input the search condition and click [Search ALL] button.

You can search by Model name (or part of the name) , or by the registrant of the Model. When you specify the search text by comma delimitated, OR search will be conducted.



The search results will be displayed in the [Search Results] tab, displayed next to [Latest Models] tab.

Click the Model name link to view the model.

To close the search result, move the curser to the tab to display the close button, and then click the button to close the search result panel.

Depending on your user privilege, the model/tag/comment that you can display would vary. So are the search results. The above example, you have the access privilege for MAPK.xml, so all the model information (the model name, model registrant, registered date, and keywords) are displayed.

See also: "4.4.1 Advanced Search" section for details on Advanced Search.

3. How to Login Payao

3.1. Log In

To login, input the user name and the password, and click [Login] button.



To logout, click the [Logout] button on the top-right corner on the screen.



3.2. Change Password

To change password, click [Change Password] button on the bottom right corner.



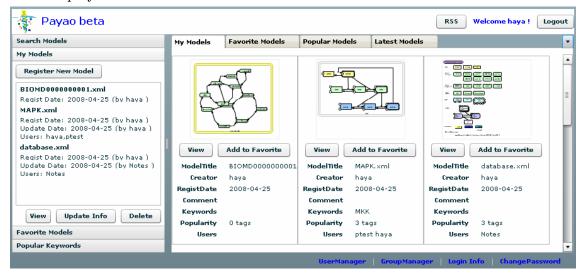
[ChangePassword] panel will be displayed.



4. Managing Models

4.1. My Models

After logging in, [My Models] and [Favorite Models] tab on the left pane will be displayed.



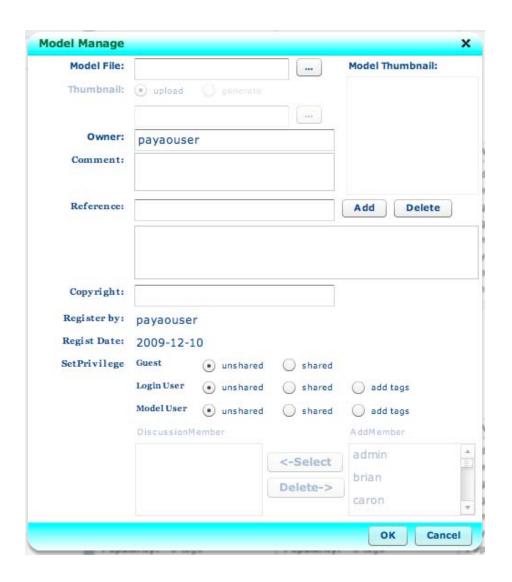
4.1.1. Register New Model

Register a Model to PAYAO. The models you register will be displayed under [My Models] header.

1) Click [Register New Model] button.



The [Model Manage] dialog will be displayed.



Model File:

Specify a model file to register.

Click [···] button to open the dialog to select a file to upload.

On selecting the Model file to upload, [Thumbnail] radio button will be enabled.

Thumbnail:

Thumbnail is to specify the image of Model. It is to identify the model and to display in the model list on the screen.

Upload : Click […] button to select the image file.

Generate: Generate the thumbnail image from the selected model file.

Select [Generate] to open the following dialog.



Click [OK] button to display the thumbnail.



Owner:

Specify the Owner name of the model. It would be convenient to specify your login name.

Comment:

Specify the comment to the Model.

Reference:

Specify the Reference of the model. (Publication etc.)

Click [Add] button to display the contents to the list.

To delete the contents of the Reference, select the contents from the list, then click [Delete] button.

Copyright:

Specify the copyright to be displayed in the model

Register by:

Registerer (Login User name) will be displayed.

Regist Date:

Registered date will be displayed.

SetPrivilege:

Set Privilege by user categories.

Here you set the privilege to the entire model. You can set the privilege to tags in the model when you add a Tagset.

The followings are the type of privileges you can set:

Unshared

No access allowed. No information will be displayed in the Model list.

Shared

Can Refer to Tags and add/refer to Comments.

This includes the privilege to add Tagset.

Add tags

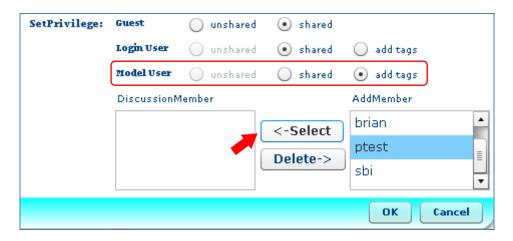
Set privilege to refer/add Tags, refer Comments.

This includes the privilege to add Tagset, and add tags to the tagsets added by other users.

To set the above privilege to individual Model Users,

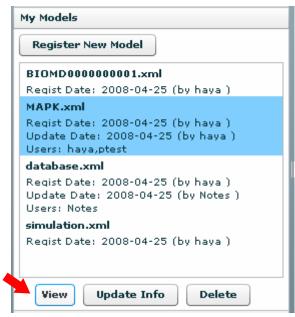
Select the member from [AddMember] list on the right and click

[Select] button to move the member to [DiscussionMember] list on the left.



4.1.2. View

Select the model and click the [View] button to display the model on the screen.



You can also display the model by clicking the thumbnail or [View] button below the thumbnail.

4.1.3. Update Info

Select the Model and click [Update info] button to open the [Model Manage] dialog. In the dialog, you can edit the detail of the model information.

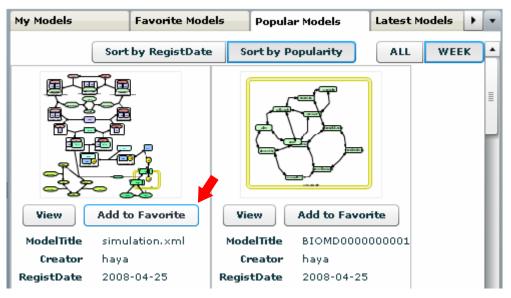


4.1.4. Delete

Click [Delete] button to delete the registered model from PAYAO.

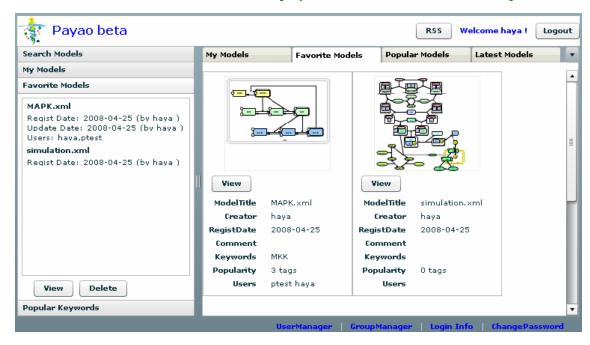
4.1.5. Add to Favorite Models

Click [Add to Favorite] button under the thumbnail to add the selected model to [Favorite Models] tab.



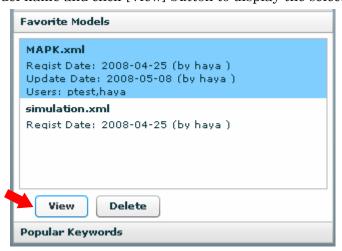
4.2. Favorite Models

Click the [Favorite Models] header to display the favorite models on the left pane.



4.2.1. View

Select the Model name and click [View] button to display the selected model.



You can also display the model by clicking the thumbnail or [View] button below the thumbnail.

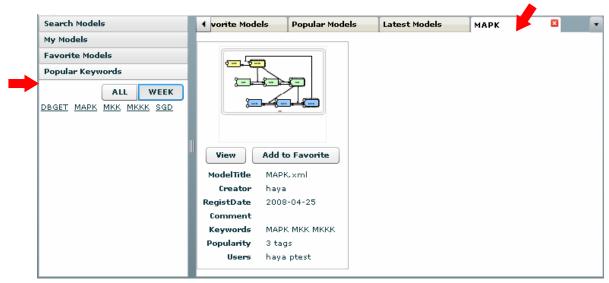
4.2.2. Delete

Delete the Model from Favorite Models list. The Model itself will not be deleted from PAYAO system.

4.3. Popular Keywords

Click the [Popular Keywords] header to display the list of keywords which registered to the tags in a week.

See also: "5.2.1 Add Tag" for details on Keyword.



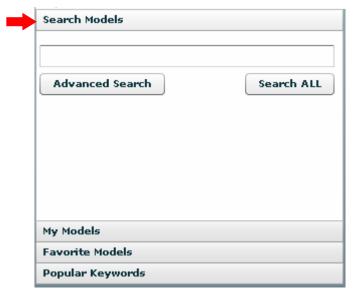
[ALL] button to display all the keyword links.

[WEEK] button to display the keywords links updated in a week.

Click [Keyword] link, then the [Keyword name] tab will be displayed next to [Latest Models] tab and all the models with the specified keywords will be displayed.

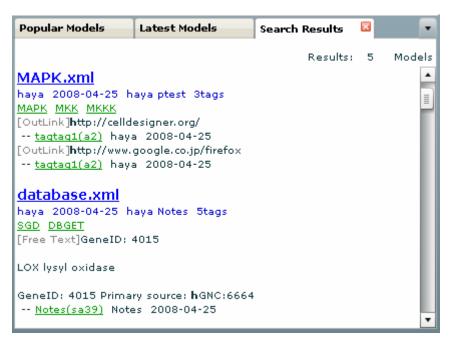
4.4. Search Models

Click [Search Models] header to display the [Search Models] screen.



Input the Search conditions (part or whole Model name, model registrants etc), then click [Search ALL] button.

The search results will be displayed in the [Search Results] tab, as stated in "2.4 Search Models" section.



Search results will be dependent on the user privileges. Depending to the privilege, Model/Tag/Comment to display will vary. In the above example, the

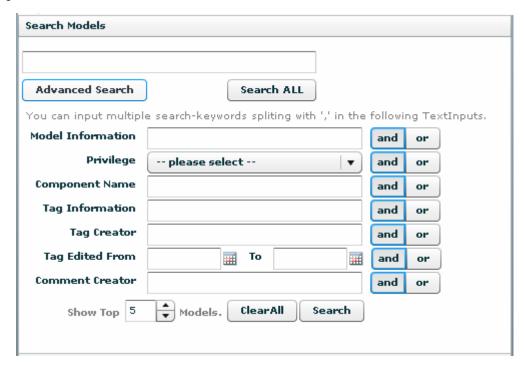
privilege is set as enabling to refer Tags, all the information including OutLink, Free Text are displayed along with the Model names.

See also: "5.2.1 Add Tag" for OutLink and Free Text.

When you click the Tag name and its link, the model will be displayed and the relevant tag associated with the search results will be highlighted.

4.4.1. Advanced Search

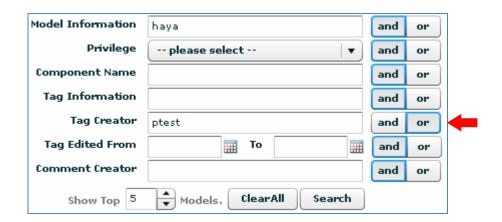
Click [Advanced Search] button to open the Advanced Search conditions settings panel.



In each Text Input field, you can input multiple search conditions by comma-delimitated. The search will be conducted as OR.

To specify the combined search conditions, select [and] or [or] button next to the right conditions.

In the following example, the system will search the model either its registrant is "haya" or the tag registrant contains "ptest".



Model Information Search for Model name and model registrant

Privilege Readable: Search models by Tag referring privilege.

Taggable: Search models by Tag adding privilege.

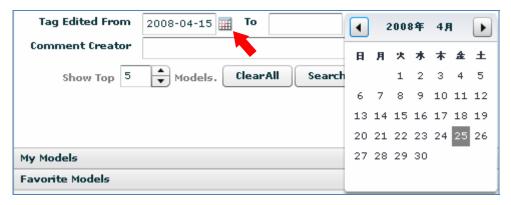
Component Name Search Model by components names.

Tag Information Search by Tag name, Keyword, PubMedID, OutLink,

FreeText, and comment.

Tag Creator Search for Tag by the registrant name.

Tag Edited From - To Search by the dates add/update Tags.



Click the calendar icon next to the field and the calendar will be displayed.

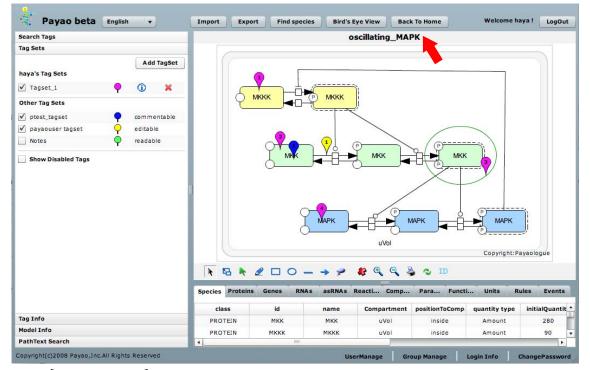
Comment Creator Search Comment by user name who add the comment.

Show Top – Models Search the number of search results.

Managing Tags

5.1. Tag Info

Click on the thumbnail from the Popular Models list, to display the model image.



Click [Back to Home] button to return to the home page with the model lists.

Click the [Back] button of the browser to return to the login screen of PAYAO.

5.2. Tagset

Tags are managed by Tagset.

Check the Tagset on the left pane, all the tags belong to the selected Tagset will be displayed as balloons in the model in the right pane.

The color of the balloons is specified by Tagset. You can distinguish which balloons belong to which Tagset.

Under [Other Tagsets], all the Tagsets registered by other users and Notes specified in the model file are listed.

[Notes] data is specified inside the model file and you can view them only in PAYAO.

You can refer to the Tagsets which you have right privileges. For the Tagsets

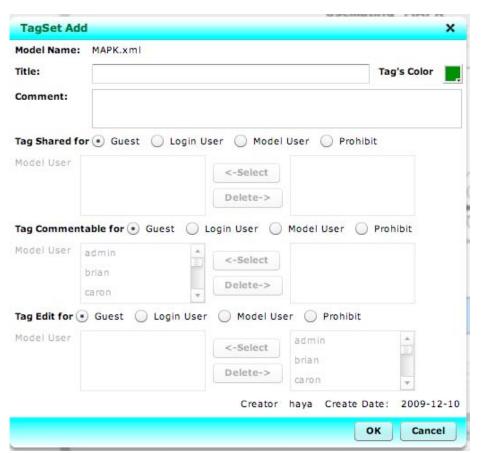
registered by other users, you can view them if you have privilege to add/ edit tags/comments.

You can set the add Tag privilege to the user groups when you create the Tagset.

[Show Disabled Tags] list all the Tagsets which become disabled, after the model is updated and correspondent components become unavailable.

5.2.1. add Tagset

The users who have the add tags privilege in the [Model Manage] dialog can add Tagsets.



Model Name Display Model name

Title Specify the title of a Tagset
Tag's Color Click to open the Color Panel.
Comment Add comment to the Tagset.

Tag Shared for Specify the privilege to the users to share (view) Tags.

In the right column displayed the users who have the "view tags" privilege. They have been specified in "Model Manage" dialog when you registered the Model. Select the user, and press [<-Select] button to allow them to refer Tags and Comments.



Tag Commentable for Specify the add Comment privilege.

Select the users to set add Comment privilege from the user list specified above [Tag Shared for] section.

Select the user, and press [<-Select] button.



Tag Edit for Specify the edit TagComment privilege.

In the right column displayed the users who have the "add and edit tags" privilege. Select the user, and press [<-Select] button.



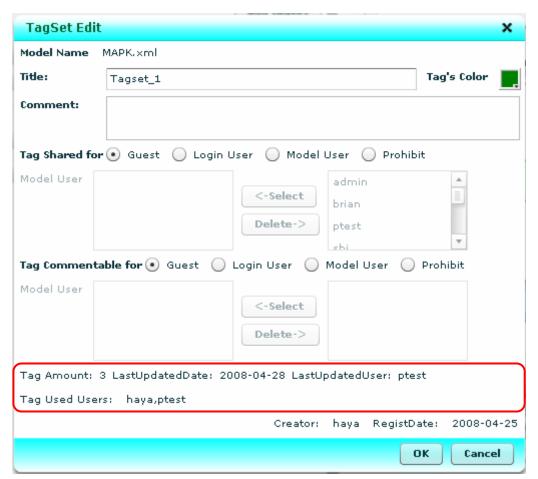
5.2.2. edit Tagset

Edit the setting for Tagsets.



Click [i] button to display the [TagSet Edit] dialog. This dialog is similar to

[TagSet Add] dialog, but it has more information such as [Tag Amount] [LastUpdateDate] and [Tag Used Users].



5.2.3. delete Tagset

Click [X] button to display [TagSet Delete] dialog.



Click [OK] button to delete the tagset and all the tags registered in the tagset.



^{* [}Notes] tagset is to display the notes data stored in the model file, so it cannot

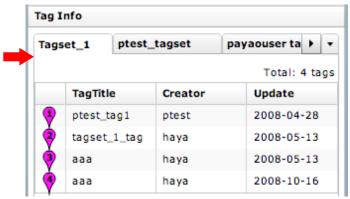
be deleted.

5.2.4. Tag List

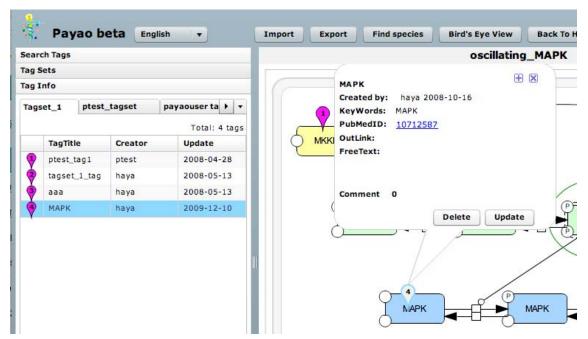
Check the Tagset and new tab will be displayed with the Tagset name in Tag Info section.



Click the Tagset name tab to display the list of the tags registered under the Tagset.



Click the tag in the list, to open the tag balloon in the model image to view the contents of the tag.

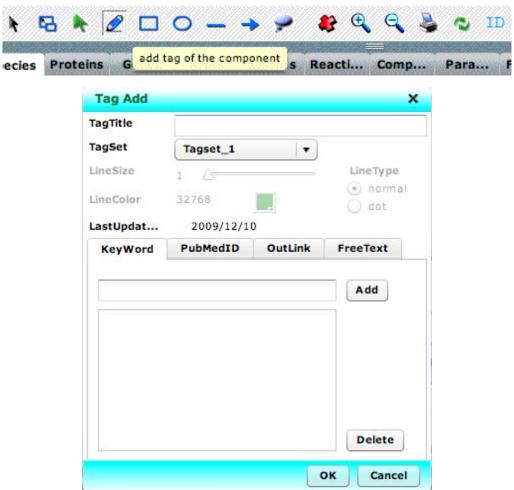


5.3. Tag

If you have the privilege to add Tags, you can add tags to the model by using the following icons, pencil, and ellipse, square icons, displayed on the screen.

5.3.1. Add Tag icon

Select the Pencil icon to add a Tag to the Component in the model.



TagTitle Specify the title of the Tag

Tagset Specify the tagset where you want to add a Tag. You can browse the list of tagsets to which you have privilege to add tags.

Keyword Set Keywords to the tag. Keyword will be useful when you in the model. Specify the keyword, then click [Add] button.

PubMedID Input PubMedID, and click [Add] button to add ID to the list.

OutLink Specify the URL to link to the other site, then click [Add] button to add the link to the list.

FreeText Click in the frame to add the text comment.



5.3.2. Add ellipse scaled / Add rectangle scaled icon

You can specify the area to which you want to add tags/comment by using [Add ellipse] and [Add rectangle icons.

Select [ellipse] icon or [square] icon



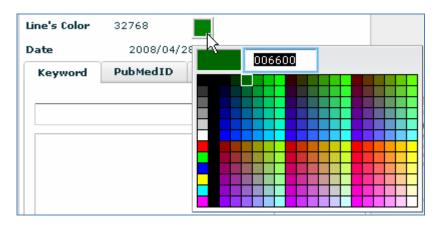
When you draw the shape onto the Model image, [Tag Add] dialog will be displayed.

You can specify the size and color of the line.

Line's Size can be specified by dragging the knob.



Line's Color can be specified in Color panel, which you can display by clicking the color button.



Note: You cannot change the size of the shape (ellipse/square) once you draw it on the model.

5.3.3. Add line scaled / Add arrow scaled icon

You can draw the line or arrow in the model by using [Add line scale] and [Add arrow scaled] icons.



When you draw the line onto the Model image, [Tag Add] dialog will be displayed.

You can specify the size and color, and line type (normal / dot).

Line's Size can be specified by dragging the knob.



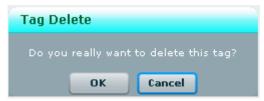
Line's Color can be specified in Color panel, which you can display by clicking the color button.

5.3.4. Delete tag icon

To delete the tag, open the tag to display the tag balloon and click it first. Click the Delete tag icon.



Click [OK] to delete the tag.



5.3.5. Select component icon

You can delete multiple tags from the model at a time.

Select [Select Component] icon, then

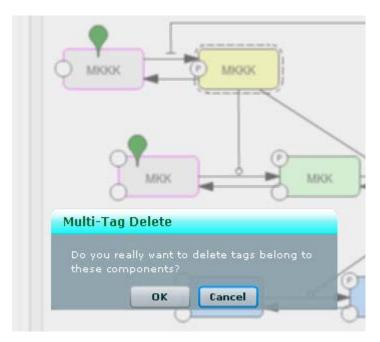
Select multiple Components from which you want to delete tags.



Click the Delete tag icon.



Click [OK] to delete the selected all.



The tags you do not have access privilege will not be deleted.

The tags which belong to the tagsets not visible on the model will not be deleted.

(You can only delete the tags displayed as tag balloons in the model image).

5.3.6. Show component's tag icon

Select [Show component's tags] icon, then click on the component in the model, the tag registered to the component will be displayed.



The tag registered to that Component can be viewed, but cannot be edited from this dialog.



5.3.7. Zoom in / Zoom out

Click + /- icon to zoom in / zoom out the Model image.



5.3.8. Print icon

Click on the icon to print the Model image.



5.3.9. Update tag icons

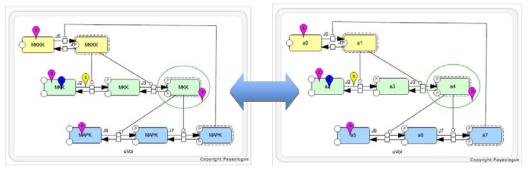
Update all the tags information and redraw the model image.



5.3.10. Show / Hide IDs icons

Show or hide the SpeciesAliasID and ReactionID specified in the original model file. These IDs are stored in the SBML annotation in the model file.

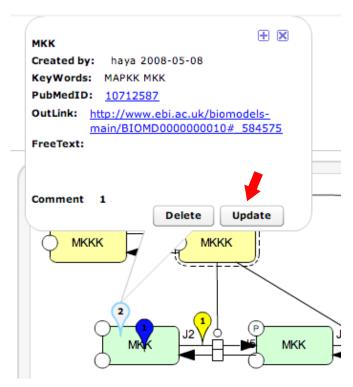




Hide IDs Show IDs

5.3.11. Update Tags

While the content of the Tag is displayed, click [Update] button to open [Tag Edit] dialog.

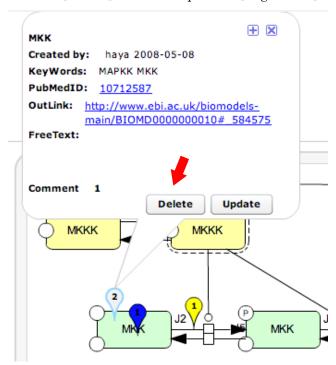


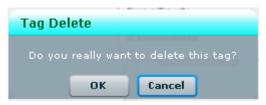
[Tag Edit] dialog can be edited same as the [Tag Add] dialog.



5.3.12. Delete Tags

Open the tag and click [Delete] button to open the [Tag Delete] dialog.

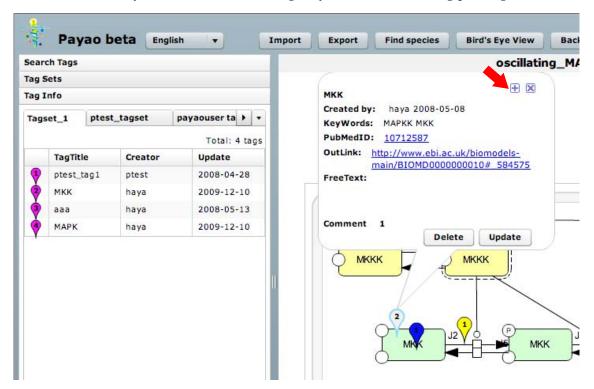




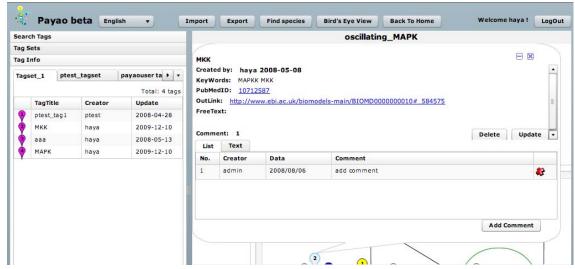
Click [OK] button to delete the Tag.

5.4. Comment

You can add your Comment to the tags if you have the add tag privilege.



Open the Tag balloon and click [+] button to expand the Tag balloon to display detail contents including comments



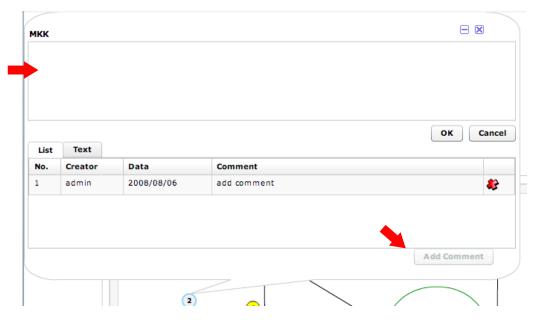
List up all the Comments in the table format.

Text Display Comments in text format.

Add Comment

Click [Add comment] button. The upper part of the balloon will become the

Comment input field. Click inside the input field to type in the comment. Click [OK] to save the comment.

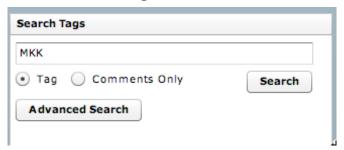


Click [Cancel] button to cancel the comment input and back to the Tag display mode.

Click [-] button to shrink the size of the Tag balloon.

5.5. Search Tags

You can search the text stored as Tags or Comments.



When [Tag] radio button is selected, you can search the data in the Tag other than Comment, such as keyword, PubMedID, OutLink, FreeText. You can search part of the string.

The Search results will be displayed in the [Search Result] tab under [Tag Info] section.

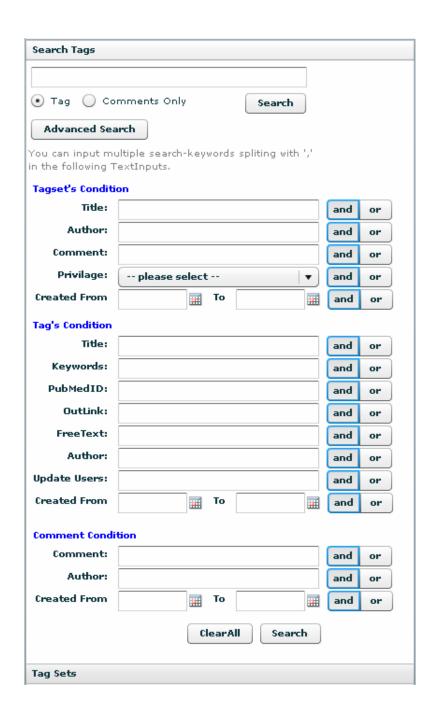


When multiple tabs are already displayed and you cannot see the [SearchResult] tab, click on the list button to display the list of tabs. Select [SearchResult] from the list to display the search results.



5.5.1. Advanced Search

Click [Advanced Search] button to display the following [Search Tags] dialog.



In each text field, you can specify the strings to search. You can specify the multiple strings with comma separated format (OR search).

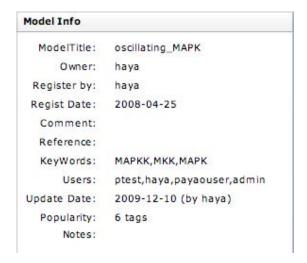
How to specify the search conditions are same as described in "4.4.1 Advanced Search" section, but the targets for search are different. Here you can search the data in the model open on the screen. Please note you can search only tags on the Tagsets you have privilege to access.

The search results will be displayed in [Tag Info] tab.

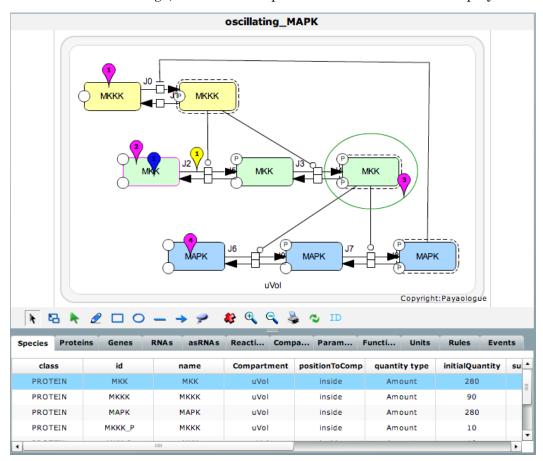
6. Using Models

6.1. Model Info

Click the [Model Info] header to display the information of the model.



Below the Model image, the list of Components and Functions are displayed.

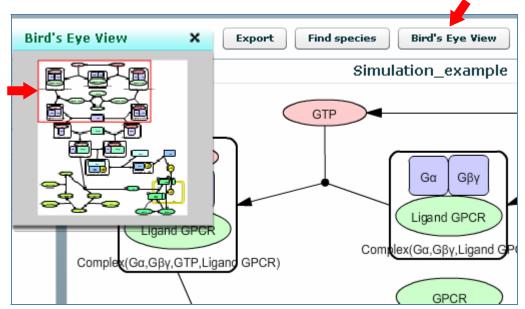


When you click on the item in the list, the correspondent component in the model

image is highlighted.

6.2. Bird's Eye View

Click [Bird's Eye View] button to display [Bird's Eye View] mini window. You can check which part of the model is now being displayed on screen.



The area specified with red square box are the area now displayed on screen. Drag the box to change the area to display.

6.3. Find Species by name

Click [Find species] button to display the [Find Species by name] dialog.



Pattern

Input the search text.

Match

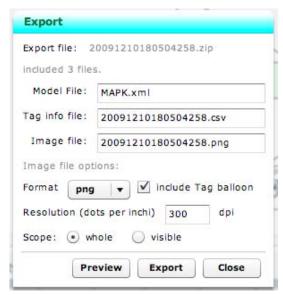
word match: search the species with the names for exact match substring match: search the species with the names of substring match.

All the searches are case-sensitive.

6.4. Export

Click [Export] button to display the [Export] dialog.

You can export the ZIP file which contains Model file, Tag information, and Model image file.



Export file: Display the export file name.

Model file: Specify the Model file name to export.

Tag info file: Specify the Tag info file name. Tag info will be exported

in csv file format.

Image file: Specify the image file name with the format specified

below.

Format: Specify from png / jpg / pdf.

include Tag balloon Check this to include the tag balloons in the image file.

Resolution Specify the resolution of the image file in dpi.

Scope whole : export the whole model image.

visible: export the image of the model visible on the

screen.

Click [Export] button to open the dialog to specify the download directory. Specify the directory, and then click [Save] button.

6.5. Import

Click [Import] button to select the tag info file.

Payao can accept the same format as exported .csv file format..

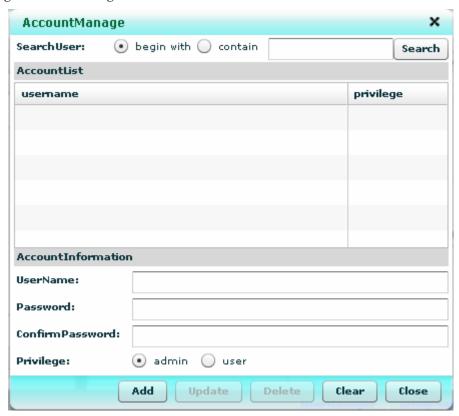
7. User Manage

You can register new users to PAYAO via [User Manage]. To register a user, you need to be a Login User with "admin" access privilege.

If you are the administrator, when you login, [UserManage] button will be displayed in the lower right part of the screen.



Click [UserManage] button to open [AccountManage] dialog. In this dialog, you can add a new user, delete the existing user, change passwords, and change the privilege of the existing users.



Search User:

Type the name of the user you want to search, then click [Search] button. The results will be displayed in the [Account List]. Check [begin with] to search the username beginning with the specified text. Check

[contain] to search the usernames which contain specified

text. You can not search the users who are login in

PAYAO.

User Name: Enter the name of the user.

Password: Specify the password.

Confirm Password: Enter password for confirmation.

Privilege: admin: set the administrator privilege.

Administrator can manage the users.

user: set the user privilege. User can register a

Model, add Tag and Comments.

7.1. Register A User

You can register a new user in the [Account Manage] dialog, with Password and Privilege.



Click [Add] button to register a user. Click [Clear] button to clear the input data.

7.2. Update User Information

Search the user you want to update the contents. Type the name of the user you want to search, then click [Search] button, then select a user from [Account List] to reset the User name, Password, and Privilege.



In the [Account Information] section, you can view the existing user information. Edit the content and click [Update] button.

7.3. Delete a User

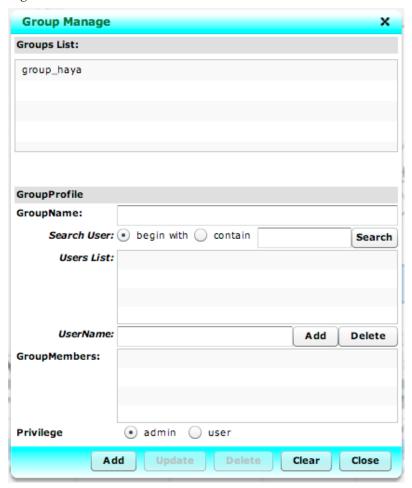
Search the user you want to delete. Type the name of the user you want to search, then click [Search] button, then select a user from [Account List] to delete. In the [Account Information] section, check the user account, and click [Delete] button. The following message dialog will be displayed. Click [OK] to delete the user.



8. Group Manage

You can register new users to PAYAO via [Group Manager]. To register a group, you

need to be a Login User



Group List: Browse the registered groups in the system.

Select the group, then you can check the group members

in the GroupProfile section below.

Group Profile:

GroupName: Enter the name of the group

Search User; Search the users registered in the system

User List: The search result is displayed.
UserName: Type the user name directly.

Add / Delete: Click Add or Delete button to add the selected user from

the User list or the user specified in the UserName field.

Group Members: Group members are displayed.

Privilege: admin: set the administrator privilege.

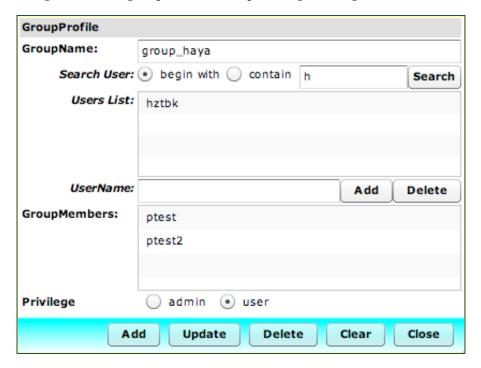
Administrator can manage the users.

user: set the user privilege. User can register a

Model, add Tag and Comments.

8.1. Register A Group

You can register a new group in the [Group Manage] dialog.



Click [Add] button to register a group. Click [Clear] button to clear the input data.

8.2. Update Group Information

Search the group you want to update the contents. Type the name of the group you want to search, then click [Search] button, then select a group from [Group List] to reset the Group name, Members, and Privilege.