

# LabCollector



## User Guide For LabCollector Workflow Manager

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## 1- INTRODUCTION

**T**hank you for choosing one of AgileBio's solutions. We hope it will help you to expand LabCollector's capabilities.

This add-on is a visual workflows designer to create custom workflows templates for any laboratory job.

Users of LabCollector's **Workflow Manager Add-on** can design any type of workflow. All jobs are stored and then status and advancement may be monitored. Workflow steps are linked to LabCollector data modules for recording and edition, automatic records creation and documents/protocols associations. This add-on is associated to a Gantt viewer and dashboard to provide information on user's activities including the number of workflows per user, project or template.

The scope of the manual is for setup and basic usage. If you will be making and using highly complex workflows or plan on integrating instrument connections including **I-Collector** functionality it is recommended that you [contact](#) AgileBio for assistance.

## 2- INSTALLATION

You can get **Workflow Manager Add-on** by downloading it from [www.labcollector.com](http://www.labcollector.com). LabCollector software has to be installed first as it contains the framework upon which the add-on uses. LabCollector support documents for installation are available on our website. **Workflow Manager Add-on** can be installed on any operating system (Windows, MacOS X and Linux). Installation is performed by AgileBio on cloud hosted instances.

As a general note, making a backup prior to installing or updating a new add-on is recommended.

A changelog is included in the download package. It is also available by navigating the browser URL on LabCollector at \*/workflow/CHANGELOG.txt.

### 2-1. Manual mode

Unzip and paste **Workflow Manager Add-on** folder in the extra modules folder. For Windows, the default will be:

```
C:\Programs\AgileBio\LabCollector\www\lab\extra_modules\workflow
```

### 2-2. Automatic mode from LabCollector interface

You can also use LabCollector Menu *Admin > Setup > Upload/Add Addons > Upload Addon ZIP > Add Addon*

Open or return to LabCollector, the **Workflow Manager Add-on** module is now activated. Click on the module to finish the installation.

The Add-on will remain in a 30 days free trial mode until you save the final license in *Setup* menu. To obtain a valid license, you have to copy and send the activation key to AgileBio. The license will be applied by AgileBio staff on hosted instances.

## 3- WORKFLOWS TEMPLATES

Workflow templates are models to manage future jobs based on specific logic. In the Workflow Manager you can create templates and keep them in a reusable catalog. Each template is defined by a number of connected steps. The templates manager provides a visual logic designer.

The steps will be sent in order, based on the diagram, to the appropriate people to complete and/or validate the designated work.

Several aspects of LabCollector may need to be setup and populated with data and records to use the Workflows template designer.

- Appropriate user accounts exist ([Admin > Users & Staff](#)).
- Preferences for modules ([Admin > Preferences](#)) must be setup.
- Reagents and supplies exist with defined lot information.
- Documents have been added to the documents module.
- Recipes have been created ([Admin > Manage recipes](#)).
- Storage has been defined ([Admin > Manage storage](#)).

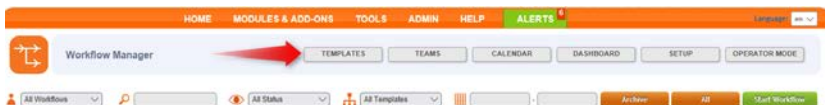
Additional steps to setup LabCollector to accommodate your workflows may be necessary in some cases. **Your specific workflows may not require setup for all of the above.**

### 3-1. Workflows templates design

The steps below describe how to construct a workflow model. Hovering the mouse over buttons and other areas of the workflow will frequently reveal helper text.

#### 3-1-1. Template area

Click on the **TEMPLATES** button on the homepage.

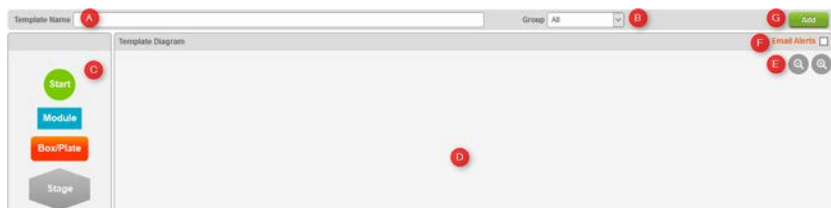


Click on the **Add Template** button at right. A new window will appear with tools to create the template.



- A. Search bar to search in template list
- B. Filter on archived templates or all templates
- C. Return to the Workflow homepage

The template area offers you mandatory action and multiple options.




- A. Enter a template name
- B. Select a group to restrict access to your template to one or more groups. Leave "All" to associate a workflow to all LabCollector users.
- C. Choose nodes to create the workflow (see below)
- D. Template design area
- E. Zoom function
- F. Tick the box if you need email alerts. When a node is completed and if the next node has a team or an assigned user, they will receive an email.
- G. Don't forget to save work on the template. You don't close the workflow template area. To return to the template list, you have to click on TEMPLATES button

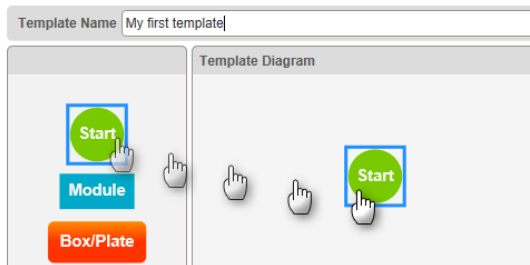
**Note:** A workflow can be associated to all LabCollector users or restricted to one or more groups. Only the super-administrator can make templates for different groups. Use of workflow teams can be combined to add another layer of restrictions to access.

⚠ Changing the name of an existing template followed by saving will create a new template.

⚠ Preserving the name and saving will overwrite the existing template. However, started jobs will retain the version of the template as it existed when the job began.

### 3-1-2. Workflow nodes


Workflows must begin with the **Start** node . Begin by dragging and dropping the **Start** icon into the template design area. Only one start node is permitted in each template.



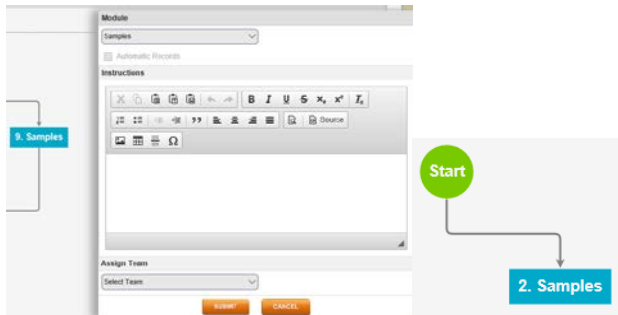
To add steps, click on a node icon and drag it into the design space. You can add as many nodes as needed.

**Note that each node has a unique menu to setup the workflow and options that change based on connected nodes.**

You have the choice between:

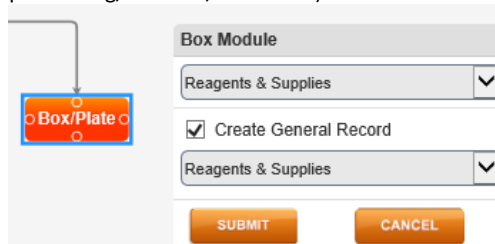
-  This node link the workflow to a module. You have to select the module in the drop down list. A team may be assigned. There is a text editor to include instructions. **Don't forget to submit.** Submission will change the name from 'module' to that of the selected module and also include a number for reference. Some configuration options only apply to a module node connected directly to the Start Node.





- Box/Plate Box/Plate node link the workflow to plates or boxes in the storage browser. You have to select the module in the select list relative to records that you want to modify.

You also have the possibility to create a general record in a module of your choice. **Don't forget to submit.** This will also allow linking to **Tube Sorter** add-on (for sample moving/creation/derivation).



- Stage Stage is used to list steps/instructions and fill in information about records associated to a module or box/plate.

For each stage, you give a name, you can add steps (see below chapter 3-3) and fields (tick the box) that you want to fill during your process. You can see custom and default fields from one or multiple connected modules that point into the stage. A team may be assigned.

A text editor allows including notes or instructions for the step.

Validation can be required for the stage. A single user for the stage can be required. Validation can be done with the user password or a specific password before and/or after work on the stage. **Don't forget to submit changes AND save the workflow** to preserve updates to the template.

Group: All

**Stage Info**

Stage:

Instructions

body p

Product:  Qty:  Units:

Assign Team:

Stage Steps

a	<input type="text" value="NO TIME"/>	+	-
b	<input type="text" value="NO TIME"/>	+	-
c	<input type="text" value="NO TIME"/>	+	-

Complete Stage (All Steps) Time Limit:

Deviation Module:

**Stage Fields (Plants)**

<input type="checkbox"/> Optional Unique Code	<input type="checkbox"/> Name	<input type="checkbox"/> Comments	<input type="checkbox"/> Owner
<input type="checkbox"/> Type	<input type="checkbox"/> Type 2	<input type="checkbox"/> Taxonomy	<input type="checkbox"/> Shipping number
<input type="checkbox"/> Genetic Results	<input type="checkbox"/> Transfection Date	<input type="checkbox"/> B-Number	<input type="checkbox"/> Genetic Results
<input type="checkbox"/> Genetic Results			

Require Validation By Administrator  
 Require Same User


Save Changes

**Stage Fields (FBatch)**


<input type="checkbox"/> Optional Unique Code	<input type="checkbox"/> Name	<input type="checkbox"/> Comments	<input type="checkbox"/> Owner
<input type="checkbox"/> Fields under testing	<input type="checkbox"/> Decimal w Aberration	<input type="checkbox"/> Decimal w Aberration 2	<input type="checkbox"/> Decimal w Aberration 3
<input type="checkbox"/> User Select list	<input type="checkbox"/> blue separator	<input type="checkbox"/> Day0 Tray 2	<input type="checkbox"/> CD3andCD8
<input type="checkbox"/> CD3	<input type="checkbox"/> CD3andGD4	<input type="checkbox"/> eTag	<input type="checkbox"/> test_customfield1
<input type="checkbox"/> test	<input type="checkbox"/> LongText1	<input type="checkbox"/> test main	<input type="checkbox"/> sub field
<input type="checkbox"/> Fbatch into microarrays			

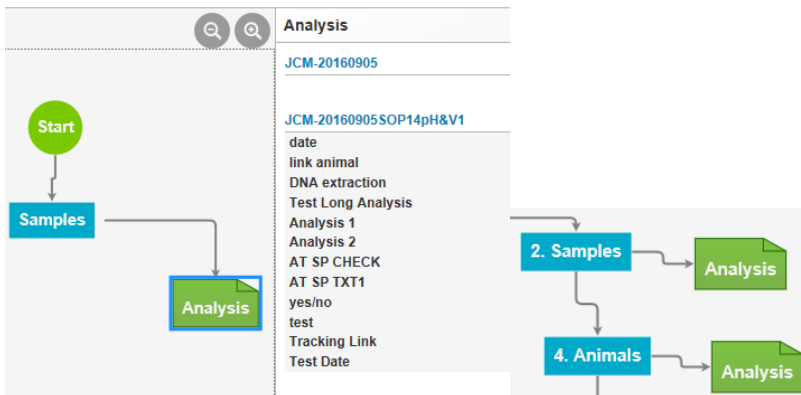
**Stage Fields (Plasmids)**


<input type="checkbox"/> Name	<input type="checkbox"/> Alternate Reference	<input type="checkbox"/> References & Comments	<input type="checkbox"/> Associated Strain
<input type="checkbox"/> Owner	<input type="checkbox"/> date	<input type="checkbox"/> num3	<input type="checkbox"/> num
<input type="checkbox"/> time	<input type="checkbox"/> one_user	<input type="checkbox"/> autocomplete	<input type="checkbox"/> Plasmids Custom
<input type="checkbox"/> Plasmid Map2	<input type="checkbox"/> Plasmid_Map	<input type="checkbox"/> Text To Select	<input type="checkbox"/> teste RAD
<input type="checkbox"/> Test Field End	<input type="checkbox"/> Test Field End Second	<input type="checkbox"/> test2_newCF	<input type="checkbox"/> test_newCF

 If you use **I-Collector, Parser or the API** to parse data from your equipment to LabCollector during your process, you don't need to select the parsed fields. These fields will be updated automatically.

 For NGS labs, don't hesitate to [contact us](#) to discover our NGS workflow solutions.

-  Analysis is available as a **read-only node**. When records have an Analysis tab, clicking the analysis node while a workflow is in progress will display the information from the analysis tab for the record(s). There are no options associated to the Analysis node. One analysis node can only be connected to one module node with the linker pointing from the module node to the analysis node (see the examples). Note that the analysis tab is not visible in operator mode.



-  Derivative (Yes/No) selection. This node allows you to choose one of two possible paths along a workflow. The question/decision may be written. The selected path becomes available, while the non-selected path is blocked. The selection induces a date and time stamp.

Yes/No Derivation

---

Yes/No Derivation

---

Switched To No On 2016-11-15 22:33:25

- Recipe This node is connected to the recipes tools of LabCollector. Recipes, reagents and supplies including lots must be defined/exist to use this option.
 

A predefined recipe ([Admin > Data > Manage Recipes](#)) may be inserted as a stage of the workflow. You have to name the stage and select a recipe. You also have the possibility to assign a team, edit some module fields and require security.

The screenshot displays the configuration interface for a workflow stage. On the left, a workflow diagram shows a 'Stage' node (grey hexagon) connected to a 'Recipe' node (yellow oval), which is then connected to a '9. Antibodies' node (blue rectangle). The 'Recipe' node is highlighted with a blue border.

The configuration form on the right is titled 'Stage Info' and includes the following sections:

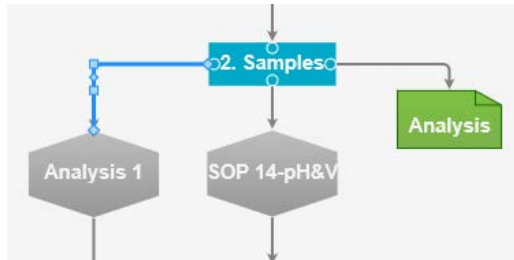
- Stage Info**: A text input field for the 'Stage' name.
- Recipe**: A dropdown menu labeled 'Select Recipe'.
- Assign Team**: A dropdown menu labeled 'Select Team'.
- Stage Fields (Antibodies)**: A grid of checkboxes for various fields:
 

<input type="checkbox"/> Name	<input type="checkbox"/> Specificity	<input type="checkbox"/> Concentration	<input type="checkbox"/> Purity
<input type="checkbox"/> From Host	<input type="checkbox"/> Reactivity Species	<input type="checkbox"/> Type	<input type="checkbox"/> Isotype
<input type="checkbox"/> Marker	<input type="checkbox"/> Applications	<input type="checkbox"/> Description	<input type="checkbox"/> Owner
<input type="checkbox"/> stage 1 mass	<input type="checkbox"/> Stage 2 reagent 1 used	<input type="checkbox"/> pathé	<input type="checkbox"/> pathéã
<input type="checkbox"/> test	<input type="checkbox"/> lastdata		
- Require Validation By Administrator**:
- Require Same User**:

At the bottom of the form, there are two buttons: 'SUBMIT' and 'CANCEL'.

### 3-1-3. Workflow connections

Steps must be connected. Some nodes can have multiple incoming and out-going connections. When hovering the mouse over a module, dots appear that allow you to make connections from one step to the next by clicking and dragging the mouse. The lines are adjustable and automatically fit to the position. You can delete a line just by select it and do DEL.

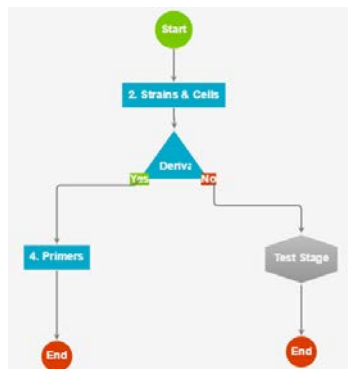


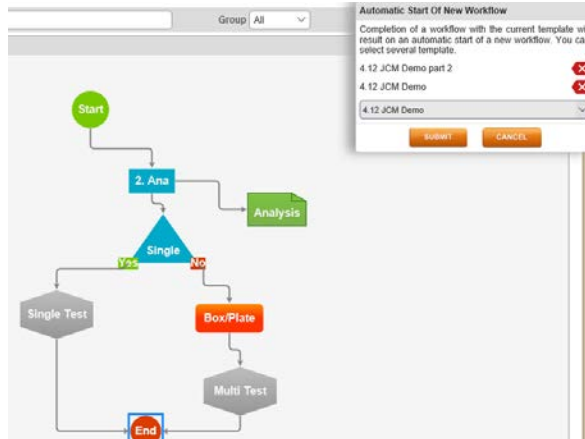
### 3-1-4. Workflow end

**End**

The End node concludes a workflow. The end icon must be connected from a series of steps and connections to the start. As for the other nodes, you have to click on the **End** icon and drag it into the template diagram.

There may be multiple paths to get to an end node. The end node has multiple options. The default choice is for reaching the end node to indicate the workflow is complete. Options may be selected where reaching the end node will allow automatic start of another predefined workflow – one of which choices could be itself (i.e. a loop).





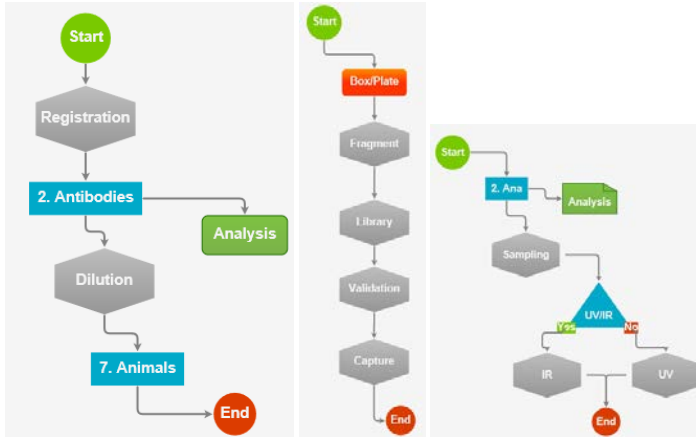
You can also indicate a delay in days to start automatically a new workflow.

The screenshot shows the 'Automatic Start Of New Workflow' dialog box. It contains the text: 'Completion of a workflow with the current template will result on an automatic start of a new workflow. You can select several template.' Below this text, there is a list of templates: '4.20 demo'. The '4.20 demo' template is selected. Below the list, there is a section titled 'Automatic Start Delay' with the text: 'If a delay is inserted then the newly automatic created workflow will only start after the delay. Leave empty or set to 0 if no delay is intended'. There is a text input field for the delay, followed by the label 'Days'. There are 'SUBMIT' and 'CANCEL' buttons at the bottom of the dialog box.

**Don't forget to click save**  when you are done. Saving will be blocked if certain invalid choices are selected: a specific warning message will appear to assist with corrections.

**⚠ Some workflows can be drawn in the designer and lead to unresolvable situations. Take care to use decision nodes and end node redirection to avoid this type of occurrence.**

Below are some workflow examples showing a variety of logic.



### 3-2. Automatic records creation

With this option, users can create automatic records from a LabCollector module (i.e. a workflow node) towards other LabCollector modules (i.e. subsequent workflow nodes). This feature allows records to be made with a predefined naming scheme for the workflow.

The “Automatic records” option is only available if the module node points to another module node as above for **Samples** module node.

Automatic records creation is done as follows:

1. Once your template is created, click on the module from which you want to generate automatic records.
2. Select **Automatic Records** option and enter records characteristics: mandatory fields depending of the module and contact. You have then to select one of the options to automatically name your records - prefix/suffix/new name - and indicate their value.

The image shows a workflow editor interface. On the left, a flowchart starts with a green 'Start' node, leading to a blue '6. Animals' node. From '6. Animals', the flow splits into three parallel paths: '2. Samples', '8. Samples', and '9. Antibodies', all of which converge at a red 'End' node. A red arrow points from the '6. Animals' node to the configuration panel on the right.

The configuration panel on the right is titled 'Automatic Records (?)' and is set for the 'Animals' module. It includes the following settings:

- Automatic Records (?)
- Automatic Records - Predefine Values**
- 2. Samples**
  - Sample Type: Serum
  - Contact: Super Admin
  - Prefix / Suffix / New Name: Prefix + Name
  - Prefix / Suffix / New Name Default Value: SER-
  - Increment Separator: -
- 8. Samples**
  - Sample Type: brain
  - Contact: Super Admin
  - Prefix / Suffix / New Name: New Name
  - Prefix / Suffix / New Name Default Value: Animal brain
  - Increment Separator: /
- 9. Antibodies**
  - Specificity: [Empty]
  - Type: Select Type
  - Isotype: Select
  - Contact: [Empty]
  - Prefix / Suffix / New Name: Name + Suffix

For example, an animal named **Dog5689** gives: SER-Dog5689-1 (Prefix + **Name**), Animal brain/1 (New Name) and **Dog5689**-AB1 (**Name** + Suffix).

3. Click on the **SUBMIT** button followed by the green template saving button to save modifications.

### 3-3. Stages and steps

The [stage node](#) in workflows has multiple options including adding steps and using forms to edit records. There is also a section to include instructions.

Options are defined and selected from this type of form:





The screenshot shows a web-based form for creating a workflow template. It is organized into several sections:

- Stage Info:** A text input field for the stage name.
- Instructions:** A rich text editor with a toolbar (bold, italic, underline, link, etc.) and a text area containing instructions: "Use the Blue tips in this step for QC test. If a deviation occurs aliquot a sample into a 2mL tube and create a new record. The record will be auto named." Below the text is a small blue image placeholder.
- Product:** A dropdown menu for "No Product", a quantity input field, and a "Units" dropdown.
- Assign Team:** A dropdown menu for "Select Team".
- Stage Steps:** A section with an "Add Step" button, a "New Step" row with a time limit dropdown (set to "MINUTES"), and a "Complete Stage (All Steps) Time Limit" dropdown (set to "MINUTES").
- Deviation Module:** A dropdown menu for "Samples".
- Stage Fields (Samples\_QC):** A grid of checkboxes for "Optional Unique Code", "Name", "Comments", "Owner", "Info", "Animal Origin", "Antigen origin", and "result".
- Stage Fields (Plants):** A grid of checkboxes for "Optional Unique Code", "Name", "Comments", "Owner", "Type", "Type 2", "Taxonomy", "Shipping number", "Genetic Results", "Transfection Date", "B-Number", and "Genetic Results".
- Require Validation By Administrator:** A highlighted yellow section with checkboxes for "Use Password", "Use Labcollector Login Password", "Use Specific Password", and "Require Same User".
- Save Changes:** "SUBMIT" and "CANCEL" buttons at the bottom.

Note that the form will vary based on connections to other nodes and modules as well as the way each of these are defined/configured.

1. Give a name to the stage.
2. A text editor allows indicating instruction, you can also add images.
3. A link with one product in **Reagent & Supplies** module can be done indicating quantity and unit that have to be used.
4. A team may be pre-assigned using the selection in 'Assign Team'.
5. Steps can be added and described. Steps can have time limits. The entire stage may also have a time limit.

- Steps may be added using the **Add Step** link and removed by clicking on .
- Steps can be moved by clicking and dragging the double arrows icon .
- A deviation node may be selected to allow the creation of deviation records/samples.
  - If a module(s) or box/plate node(s) appears prior to the stage, the form allows particular fields from that module to be edited by selecting the tick boxes.
  - Security can be applied on the stage node.  
Validation by an administrator can be required using LabCollector password or a template specific password.  
'Require Same User' option will force all data entry and editions of a stage to be done by a single user. Entry into the stage can require the user to enter their LabCollector password.  
The same user can also be required for all portions of the workflow.  
Note that admin and super-admin level users automatically have the ability to validate workflows.

**Require Validation By Administrator**  
Use Password

Use Labcollector Login Password

Use Specific Password

**Require Same User**  
Validate User On Stage Entry

Use Labcollector Login Password


Changes and editions only take effect by clicking the submit button at the bottom of the menu followed by using the green save button for the entire workflow.

### 3-4. Templates library



The screenshot shows the 'Workflow Manager' interface. At the top, there are buttons for 'Archive', 'Archive', and 'Add Template'. Below is a table listing workflow templates. The first template is 'demo complex JCM' with status 'Archived' and user 'Super Admin'. The second template is 'Genetic Cell Line Demo' with status 'Active' and user 'Super Admin'. The table has columns for Status, Used, Module, Box, Stage, Analysis, Processes, Status, Archived By, Archived On, Docs, and Options.

	Status	Used	Module	Box	Stage	Analysis	Processes	Status	Archived By	Archived On	Docs	Options
demo complex JCM Super Admin	Archived	Never	1	0	12	0	0	0	Super	2017-04-24	0	Details Restore
Genetic Cell Line Demo Super Admin	Active	Never	2	1	5	2	0	0			0	Details Edit Config Archive

The left side shows the template name, user who created the workflow template and option to make this the default selection. The double arrow icon  allows clicking and dragging to rearrange the order of the templates.



The status options are Active and Archived.


Used provides the number of times the template has been used to **start** a job.







The middle table provides the number of each node type used in the template.

Archived templates show the user who archived the template with a date stamp.

**Docs** cell shows the number of linked documents from the documents module. Each module and stage in the workflow can be linked to documents/protocols from LabCollector Documents module. You can also associate a document to the workflow in general. To associate documents to a specific workflow, you have to click on the number below **Docs**, then:

1. Click to select the module or if it is general to make the document available for the entire workflow.
2. Documents can be filtered by categories or searched by name.
3. Once the document is selected, you have to click on the icon  to add it. Multiple documents may be added to any stage within a template.
4. A document can be removed by clicking on the icon .

**Documents** 

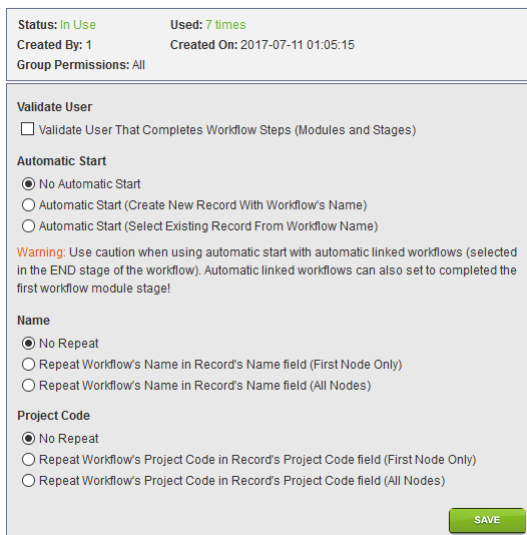
Template's Modules	Documents in selected module	Select a new document
General (All Modules)	 Project 234	550 Project 234
2. Samples 	 	549 Test
Stage (PCR on serum)	 	548 Example Incident report
6. Animals		547 test ie
8. Samples		546 double end
9. Antibodies		545 test ins
Stage (Stage)		544 auto
Stage (Stage)		543 doc1

When you start your workflow, documents are accessible in each node in the *Documentation* section or in the general bar if you choose to link your document to the entire workflow.



Saved templates can be edited and/or modified to create new templates or archived using the choices under Options:

- **Details** provides a view of the workflow along with some information about the workflow template.
- **Edit** allows you to load a saved template for editing and modifying.
- **Config** brings up a window that allows several options to apply configuration options to the entire workflow.



Template wide options for validation can be set.

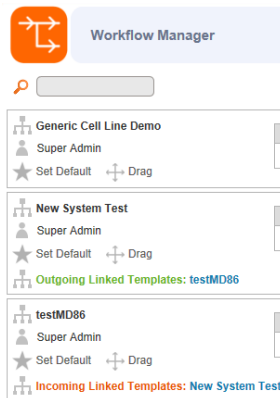
Automatic start of the workflow can be selected by creating new record or selecting record already in the database based on the name of the workflow.

The configuration options allow you to control the naming of records and use of project codes during a workflow.

All changes will only become effective if you select save in the bottom right. Clicking the X in the top right will not save any changes.

- **Archive** sends the workflow to the archive. Using the Restore link, you can unarchive a workflow.

Additional information about each workflow is also displayed. Some of the information is a dynamic link to content. There is also a search bar.



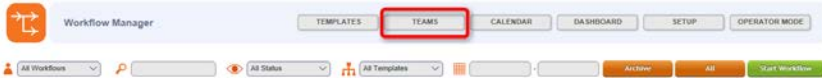
### 3-5. Teams

Teams can be created to allow assignment of workflow steps or entire workflows to a group of users rather than a single person. Teams may also have the ability to validate workflows. Note that admin and super-admin level users automatically have the ability to validate workflows.

A single user may be placed on zero, one or multiple teams.

A team may have one or multiple users.

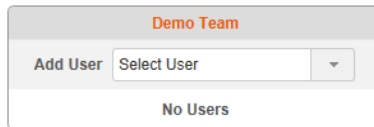
To add a new team, navigate to teams by selecting the Teams button in the menu.



Then name the team and click the green add button.

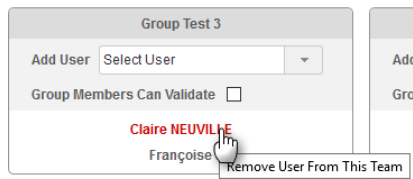


A new team is created. No users are in the team upon creation.



To add users, type or select a user. The box will act as both a dropdown menu and autocomplete to select a LabCollector user account.

If you attempt to enter the name of a person that does not exist within LabCollector, the person will not be added to the team.



To remove a user from the team, click on the name to be removed. Hovering the mouse will also present helper text on the actions for clicking.

Click the name of the team to provide the options to **Deactivate** or **Delete** the team. There are some restrictions on deleting a team. If the team has been used, it may only be deactivated. Selecting Deactivate will remove the team from the list of available teams to assign to a workflow.

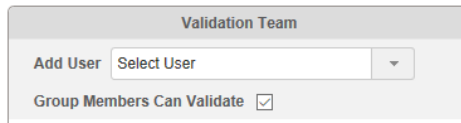


Demo Team  
Deactivate | Delete

Add User  ▼

james  
Françoise

Clicking the box “Group members can validate” will allow the members of the team to validate workflows. In many situations it is useful to create a specific team for validations. By default, users with admin level access may validate workflows. If you do not want a workflow validator to have an admin level permission in the rest of LabCollector they can have this permission by being assigned to a team with validation privileges.



Validation Team

Add User  ▼

Group Members Can Validate

## 4- WORKFLOWS/JOB

This chapter explains how to do a Workflow/Job after a template has been made. Due to the freedom to create any type of template, not all possible scenarios can be covered in this manual. For additional information [contact](#) AgileBio.

### 4-1. Start New Jobs (Workflows)



To start a new workflow, navigate to the LabCollector workflows add-on homepage. Click on the **Start Workflow** button on the top of the homepage. Then:

- Select the appropriate template (a view of the selected template will appear).
- Name the workflow
- Enter additional information such as: project code, observations, start and end date. These options can be expanded by clicking on 'Enable Advanced Options'.

This information can also be updated or filled in while the workflow is in progress. Depending on the configuration, warnings may appear if the name of a workflow could create a conflict by having a duplicate job or duplicate record.

The start and end date are required to create the gantt chart associated with the workflow job.

The observations will appear in every stage of the workflow.

To start this new workflow, click on the **START** button. After clicking start, the workflow/job will be added to the list on the homepage.








## 4-2. Homepage

In the Workflow Manager Add-on, jobs status and advancement are monitored. If users validate each step of the workflow by clicking on the **Set as complete** icon (see below), they can have a quick view of their jobs advancement summarized on the homepage.


The list can be sorted by clicking on the headers for Job Name, Template, Status, Progress and Date. An arrow will indicate if the sort is in ascending or descending order. The list can also be filtered by user, status, template, date and by making a search.


The row for each job will also be color coded to aid in quickly evaluating what needs to be done:



-  Grey rows are for started and running jobs.
-  Light yellow rows require **validation**.
-  Green rows are **100% completed**.
-  Dark orange rows are **blocked**.
-  Red rows are **dead** jobs.


Job Name	Template	Status	Progress	Current Step	Next Step	Start Date	End Date
JCM 2016 11 14 005	JCM 2016-11-14 001	Dead	17%	Stage   stage 1		2016-11-15	
JCM 2016 11 14 004	JCM 2016-11-14 001	Running	67%	Stage	Stage   Stage	2016-11-15	
JCM 2016 11 14 003	JCM 2016-11-14 001	Running	73%	Stage		2016-11-15	
JCM 2016 11 14 002	JCM 2016-11-14 001	Running	0%	Plasmids	BoxPlate	2016-11-15	


For each job, on the home page, you have several possible actions via the buttons on the right:


 View Gantt chart (see chapter 4-7)




 Start a job/view details to work on the job

 Change workflow's name   

 Delete a workflow. **Only possible when a job is at 0% progress without any records created or added.**

 Archive a workflow. **Only possible when a job has 100% COMPLETE status or DEAD status.**

 Workflow Report. Not available to all user levels. Generates a report on the workflow listing information about the template used, as well as specific information from each node within the template.


 To convert a job status to **DEAD** in a module node, before clicking **Set as Complete**, click on the  of the **Validation** section, fill the form then select **Blocked** as initial Status, then save. You have to validate this change of status by clicking on the  icon and then select **Permanently Blocked**.

The dead status can also be selected in stage node by clicking the button in the Status section.


 **The status of 'dead' and 'complete' cannot be changed once set.**

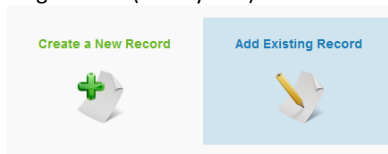
### 4-3. Adding records and general information


In the Workflow Manager, jobs steps are linked to LabCollector data modules for record storage and edition. There are two modes for adding records and information. The first described here is the main method. There is also an **operator mode** (see chapter 4-9) designed to show only the exact information needed to complete any particular step of the workflow.

To access a job, first click on the icon  on the line for your job. From there, you can add records either automatically or manually depending on how the template was designed (see [Config](#) point above).


Then, you can add a record by following these steps:




1. Select the desired module of your workflow by clicking on it. Note for operator mode, you will be directed directly to the node.
2. Click on the **Add module record** icon .
3. A new window appears. Here you can choose to create a new record or to add an existing record. You can add multiple records including a mix of new and existing records (one by one).



If you add an existing record a window with a list of records and a search bar will appear. After searching for the desired record, select it by clicking  (the process is similar to the one used to add documents, see chapter 3-4).

If you want to create a new record, the process is the same as in LabCollector (see LabCollector Manual for full details). In brief, a window appears allowing you to input all of the desired information about the record. Note that some sections may be autofilled based on the setup for records and/or the workflow. If any fields are mandatory, they must be completed at this time. You must click the **SAVE** icon to complete the action of adding the new record to the workflow.

 **The ability to add new or existing records can be unavailable with some automatic record creation options.**

Once the module records are added, you can edit them by using the **Edit** icon . New information must be saved as usual when updating records. Barcodes can be generated/printed using the icons:  and .

### Other actions:



**Add validation:** to add a validation step before moving to the next stage (also see DEAD status). **NOTE:** this validation is distinct from validations options chosen during template design.



**Add observation.** This can apply to one module or the entire workflow. The icon to the right of observations for the node makes an observation only for the node. The icon at the top right applies throughout the entire workflow.



**Assign user:** with this function, you can assign a defined LabCollector user to a specific step. A user can also be assigned to all other nodes in the workflow.

test >> Animals

---


Assign this module to user:

Select

Assign this user to all modules



**Set execution time:** To define the start/end dates associated to a step. These are assigned dates – not actual dates for starting/ending. Some rules prevent assigning nonsensical dates.

Steps must be validated in order. Certain branching and loops within a workflow has the possibility to lead to unresolvable scenarios (see chapter 3-1). To continue from one node to the next with the possibility to validate subsequent steps, you must click on the  button.

If you want to close, click the icon at the top left to return to the LabCollector homepage. Alternately, use the Homepage button to return to the workflows homepage.

#### 4-4. Automatic LabCollector records generation


If the **automatic records** option has been selected (see chapter 3-2), then the workflow users will automatically have LabCollector records made in the corresponding modules.

**Automatic records creation will be effective after module record adding (see previous chapter 4-3) and workflow step validation.**

test >> Animals

Insert the desired number of automatic records and the prefix / suffix for each module

Module	Number	Type	Prefix / Suffix	Increment Separator	Additional Info
Samples:	<input type="text" value="1"/>	<input type="text" value="Prefix"/> ▼	<input type="text" value="SER-"/>	<input type="text" value="-"/>	Sample Type: Serum   Contact: Super Admin
Samples:	<input type="text" value="1"/>	<input type="text" value="New Name"/> ▼	<input type="text" value="Animal brain"/>	<input type="text" value="/"/>	Sample Type: brain   Contact: Super Admin
Antibodies:	<input type="text" value="1"/>	<input type="text" value="Suffix"/> ▼	<input type="text" value="-AB"/>	<input type="text"/>	Specificity:   Type: Monoclonal   Isotype: IgE   Contact: Super Admin




At this step, default values are the same as those filled in during template creation but users can choose another prefix or suffix for their records than the one define previously. This prefix/suffix will be automatically added to the derivate records names which are based on the parent record name (see chapter 3-2). The number of automatic records can also be setup here in Number column.







If deviation is selected, the step affected will be highlighted in yellow. If a module for deviation records was selected, a deviation record must be created before completed the stage. If a deviation module was not selected, the deviation will appear in the record of the workflow.

Steps	Start Dev	End
1 Draw then record observations in comments	Started on 2017-07-04 00:23:52 By Super Admin Completed on 2017-07-04 00:24:58 By Super Admin	
Completed In 00:01:06 / Expected: 5 Minutes / Remaining: 00:03:54		
2 Divide sample into two portions	Started on 2017-07-04 00:25:02 By Super Admin Completed on 2017-07-04 00:25:02 By Super Admin	
Completed In 00:00:00 / Expected: 5 Minutes / Remaining: 00:05:00		
3 Record Sample Type - print & attach barcode label to both portions	Started on 2017-07-04 00:25:04 By Super Admin Deviation Reported On 2017-07-04 00:25:05 By Super Admin Completed on 2017-07-04 00:25:07 By Super Admin	
Completed In 00:00:00 / Expected: 5 Minutes / Remaining: 00:05:00		
STAGE TOTAL: Completed In 00:01:15 / Expected: 15 Minutes / Remaining: 00:13:45		

If a record is designated to be updated as part of the stage, the Stage Form will appear. Click the blue pencil  to edit the fields. Click the eye to show or hide the fields available to edit.




The barcode and printer icon allows printing the record barcode either directly or using the barcode printing options available within LabCollector.

Parent Module (Animals)


Dog 45789
Last Update: 2016-10-28 11:24:42
Owner: ALS   

Date of Death	<input type="text"/>
Comments	<input type="text"/>

---

SG7
Last Update: 2015-07-07 10:27:50
Owner: Super Admin   

Date of Death	<input type="text"/>
Comments	<input type="text"/>

Parent Module (Animals)

Mr T
Last Update: 2017-07-04 00:31:23
Owner: ALS8   
Save
Cancel

Project Code

Description


**Note:** If you select some data during the template creation, stage forms will be available to fill but only if the record has been created or added at a previous module node. If multiple records were created or added you must select the record to update. The green save button must be used to save the changes to the record.

Similar to the other nodes, for stage nodes, you have to change the status to continue and complete the workflow.

⚠ The following status choices may be changed to other options once saved: in preparation, pending, in progress, to repeat and blocked. The remaining status choices, **completed and dead**, cannot be changed once saved.

⚠ Sometimes the status of complete may be blocked due to the way the template is constructed.


## 4-6. Workflow barcodes printing

During a workflow execution, users can print all the workflow records barcodes. The user has to click on the **Start** icon and then on the icon . They will be redirected on the LabCollector Barcode Label Series tool with several parts of the form pre-filled based on the workflow.

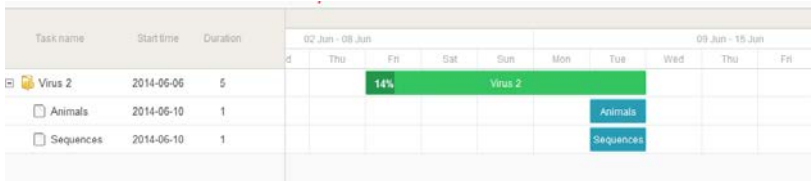
Printing within operator mode is more limited and also varies by user permission level.



## 4-7. Gantt viewer

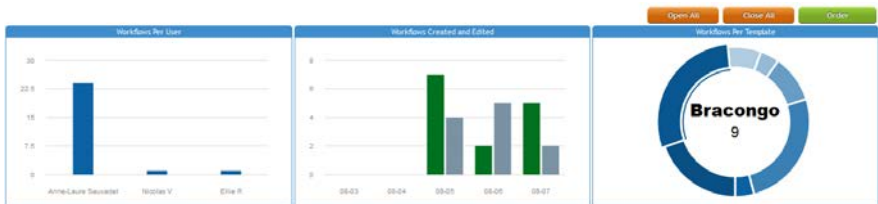
The Workflow Manager add-on includes a Gantt viewer. Click on the **View Gantt Chart** icon  to see a Gantt chart.

The Gantt chart can only display information about nodes with defined calendar information.



## 4-8. Dashboard viewer

The Workflow Manager add-on includes a dashboard view giving information on users' activities and the number of workflows per user, project or template. Several views are available and these can be adjusted to the preference of the user.



## 4-9. Operator Mode

The workflows may be done in a more restricted view called operator mode or standalone operator mode. This particular mode is available on the general menu and by standalone calling `/operator_mode.php` at the end of the URL.



The view and screen layouts are designed to provide only the essential information, instruction and input capability for the exact workflow at hand. Connections to other parts of LabCollector are almost entirely hidden.

Selecting operator mode presents a simplified view within the view of LabCollector

The top screenshot shows the 'Workflow Manager' interface. The top navigation bar includes 'HOME', 'MODULES & ADD-ONS', 'TOOLS', 'ADMIN', 'HELP', and 'ALERTS'. The 'Job List' section has a search bar with 'test' and a table with the following data:

Name	Template	Status
Test Teams	JCM test 20170013 003 (teams)	Running
Test Completed VI	4.13 new features test part 2	Running
Test Completed V	4.13 new features test part 2	Running
Test Completed IV	4.13 new features test part 2	Running

The bottom screenshot shows the 'Job List' view in operator mode. The top navigation bar includes 'Active Session: Super Admin (admin)' and 'Logout'. The 'Job List' section has a search bar with 'test' and a table with the following data:

Name	Template	Status
Test Teams	JCM test 20170013 003 (teams)	Running
Test Completed VI	4.13 new features test part 2	Running
Test Completed V	4.13 new features test part 2	Running
Test Completed IV	4.13 new features test part 2	Running

The job list only provides basic information about jobs. Only jobs specifically available to the user are visible to search and select.

The CLOSE button, at the top right, returns to the Workflows home page.

The button Open Standalone removes further extraneous information and options. The user will only view the information and options necessary to complete their workflow jobs. Some abilities to view, edit and print will be unavailable within operator mode.

## 5- UPGRADING AND UPDATING

To update or upgrade the **Workflows Manager Add-on** module, just download it on our website ([www.labcollector.com](http://www.labcollector.com)). Then, unzip the folder and paste files in the following folder:

Ex. on Windows setup:

```
Programs\AgileBio\LabCollector\www\lab\extra_modules\workflow
```

As a general suggestion, we always recommend making a backup prior to performing an upgrade or update.

If your instance of LabCollector is cloud hosted with AgileBio, contact a sales or support representative to update.



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