

LabCollector

"Your Laboratory management solution"

User guide

Parser

November 2018



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1- INTRODUCTION

Thank you for choosing one of AgileBio's solutions. We hope it will help you to expand LabCollector's capabilities.

This add-on is a file parser that allows reading values in a file and then updating fields in a record or creating new records with some fields values updated based on the file.

The scope of the manual is for setup and basic usage. If you will be making and using highly complex files to parse or plan on integrating instruments it is recommended that you contact AgileBio for assistance.

2- INSTALLATION

You can get **Parser Add-on** by downloading it from 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 of addons are available on our website. **Parser Add-on** can be installed on common operating systems. Installation is performed by AgileBio on cloud hosted instances. Win2Parser is windows only and may be required in some scenarios.

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 and on the LabCollector website. It is also available by navigating the browser URL for your instance of LabCollector at */parser/changelog.txt.

2-1. Manual mode

Unzip and copy **Parser Add-on** folder in the extra modules folder. For Windows the default will be:

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

If using Win2Parser, download this from LabCollector.com and follow the instructions in the installation wizard.

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 **Parser Add-on** module will be activated. Click on the module to finish the installation. The initial installation and upgrades will show anything created or checked in the database.

The Add-on will remain in a 30 days free trial mode with one possible parser model until you save a license in the **Setup** menu (requires admin credentials). 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. The license will allow the purchased number of parser models.


3- PARSER MODELS

Parser models are designed to allow the definition of what data to parse from a file to populate and/or create records based on various files.

Several aspects of LabCollector may need to be setup and populated with data and/or records to use the Parser for certain use cases. In particular, the following will generally need to be setup:

- User accounts ([admin > users & staff](#)).
- Custom/default fields ([admin > custom fields](#) and [admin > default fields](#)).
- Preferences for modules ([admin > preferences](#)).
- General setup for email server & API ([admin > other > setup](#))
- Storage system ([admin > manage storage](#)).

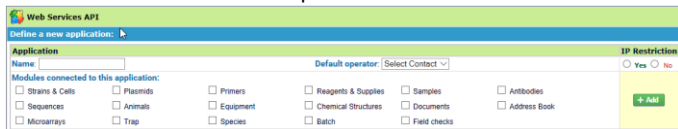
Additional steps to setup LabCollector to accommodate your parsing requirements may be necessary in some cases.

 Certain features and uses of Parser are only available after an appropriate part of LabCollector and the folders to use as a source of files are created and/or configured. E.g. if you want to use parser to update project codes and allow an email alert, the project code must be enabled in default fields and the email server must be configured.

3-1. Parser / LabCollector setup

The steps below describe how to ensure several essential aspects of LabCollector are setup to allow parser to function:

- 1) Navigate to [admin > setup > Web Services API](#) and create an API for the modules of interest to update. The API token is required when defining a parser model. You will likely need to create a new API model and associated token for each parser model.



Application	Used Modules	IP Restriction
Name: parser strains Default operator: admin1 Token: s100a <input type="button" value="Regenerate token"/>	<input type="checkbox"/> Strains & Cells <input type="checkbox"/> Plasmids <input type="checkbox"/> Primers <input type="checkbox"/> Reagents & Supplies <input type="checkbox"/> Samples <input type="checkbox"/> Antibodies <input type="checkbox"/> Sequences <input type="checkbox"/> Animals <input type="checkbox"/> Equipment	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="button" value="Update"/>

- 2) Navigate to **admin > setup > Proxy, Tasks Scheduler and Email** and configure the email server. Note that this may already have a valid configuration. Send a test email to check.

Alert Emails Settings

From:

To:

Email server: Custom SMTP Server Localhost by PHP


SMTP: (enter a valid SMTP server to use for sending emails)

Port:

Username:


Password:

Secure: (SSL and TLS need Open SSL on the server)

 These configuration actions require the super-admin level account.

3-2. Win2Parser setup

The steps below describe how to setup Win2Parser. If your setup does not use Win2Parser, this section of the manual may be ignored.

 Some parts of Win2Parser can only be completed after a model is described in the Parser module.

Win2Parser provides an interface to select a folder to parse files from and options to indicate which parser model is associated to which folder. The Parsing actions can be started or stopped. Logs may be viewed. Folder details can be created (1), edited (2) or deleted (3).

The screenshot shows the Win2Parser application interface. At the top, there is a blue header with the Win2Parser logo and name. Below the header is a table with the following columns: Folder, URL, Retries, and Action on fail. The table contains four rows of data:


Folder	URL	Retries	Action on fail
C:\Users\agilebio\Documents\parser\pars...	http://127.0.0.1/demo/...	0	Rename
C:\Users\agilebio\Documents\parser\Dem...	http://127.0.0.1/demo/...	0	Rename
C:\Users\agilebio\Documents\parser\Sam...	http://127.0.0.1/demo/...	0	Rename
C:\Users\agilebio\Documents\parser\Che...	http://127.0.0.1/demo/...	0	Rename

Below the table, there is a section for Service Status, which is currently 'running'. To the right of the status are three buttons: 'New' (marked with a red circle 1), 'Edit' (marked with a red circle 2), and 'Delete' (marked with a red circle 3). At the bottom, there are four buttons: 'Start Service', 'Stop Service', 'Logs', and 'Done'.

View showing list of folders and details Win2Parser will take on each. Folder column refers to the folder observed to parse into, based on the URL indicated. Retries shows how many attempts to parse will be done. Action on failure is also shown.

The screenshot shows the 'Folder to watch' dialog box. It has a blue header with the title 'Folder to watch'. Below the header, there are four input fields: 'Folder' (with a 'Browse Folder ...' button), 'URL', 'Retries' (a numeric spinner set to 0), and 'Action' (a dropdown menu set to 'Rename'). At the bottom right, there are 'OK' and 'Cancel' buttons.

When you add/edit an individual folder for parsing, the folder may be selected (local to the current computer/server). The URL comes from the parser model using the link

icon  in the model list. Retries is the number of attempts to retry upon a detected failed parsing. Action is what action will be taken on the parsed file: Moved to failed folder (a Failed folder will be created and failed files will be import in it), Rename (the file will be renamed), and Delete (the file will be deleted from the parsed folder).

3-3. Home Page

The home page of parser shows several options for admin level users to configure the parser as well as other features to review actions taken by the parser.



The home menu will bring up the screen seen above.

Model List will show the list of parsing models and allow a user of sufficient permission to edit parsing models.

Add New Model allows creation of a new parsing model.

Setup allows modification of the license and email alerts.

The file parsing history shows details on parsing. The list may be sorted by each column.

3-4. Email Setup

With this option, users can receive an alert if a file is detected as failing to parse. From the parser menu, navigate to **Setup > Email Alerts Setup**, then add email addresses.

Parser

Email Alerts Setup

Notify by email if file parse fails

Email recipients

parsing_@myemail.net;IT_Works@mail.org

Input email accounts separated by ;

Submit

3-5. Model List & Adding a model

To create a new model, click on **Add New Model**.

Add/Edit New Model

Template/Model Name: Model Name

File Source: Select a File Source

API Token: LabCollector API Token

Module Name: Select a Module

Update/insert: Update records, ignore when not found

File Type: Select File Type

SUBMIT

A form opens and includes:

- Template/model name: this option can contain any name to aid identification of the parsing model.
- File Source: Win2Parser or an identified local folder.
- API token: The token created in [admin > setup > Web Services API](#) (refer to section 3-1).
- Module Name: select the module the parser will act on.
- Update vs insert records: By default, parser will update records if the file contains an identifier and the record exists in LabCollector. If the record does not exist, this option chooses to ignore the section of the file to parse **OR** create a new record with information from the file.

- File types: Allows an indication of the file type. Options are available based on each file type to customize the parsing model.
 - i. Upload to field. Needs to have UPLOAD type field (database upload, disk folder upload in custom fields or upload default fields).
 - ii. MS Excel. Indicate the row number where the data start, check the box if you have first row header and write the Excel sheet name or index number.
 - iii. CSV. Indicate the separator, the row number where the data start and check the box if you have first row header.
 - iv. XML
 - v. Json. Indicate the root tag name.
 - vi. Plain text. Indicate the separator, ...

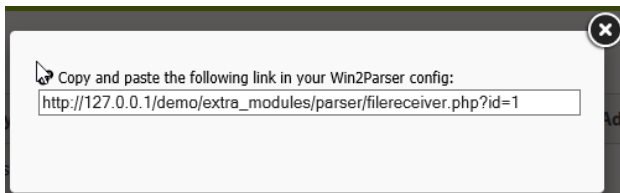
The model list option will show all of the existing parser models. This will include the model name, file source, module affected as well as columns to add fields or edit actions.

#	Model Name	File Source/Type	Module Name	Folder	Add Fields	Actions
1	Strains	win2parser / csv	Strains & Cells		Add Fields/Parts/Tags	🔗 ✎ 🗑️

In the above example, the model list shows a parsing model named strains using csv files via the Win2Parser that will affect the strains & cells module.

The model name, file source, module affected only show information. The 'Add Fields' and 'Actions' columns are interactive.

Actions allows retrieving the link information to populate Win2Parser. The URL is applied after opening Win2Parser and creating a new parsing folder or editing an existing parsing folder. Copy this to the section for URL in the folder to watch section of Win2Parser.



The trash icon allows deleting a parsing model.
 The pencil icon allows editing details about the parser.

Add fields/parts/tags

The menu for editing how a file is parsed:

Add New File Parts/Tags						
	File Tag Name	Field Name	OR	Select Column Index	Database Field	Select Database Field
						<input type="checkbox"/> Mark as Record ID <input type="checkbox"/> Allow empty <input type="button" value="Add"/>
#	Parts/Tag Name/Column Index	Database Field	Record ID	Allow empty	Delete Field	
1	2	pid		No		
2	1	count	Yes	No		

Note: This menu adapts slightly based on the file type. This is a view for a csv file.

The menu has several options. The file tag name **OR** column index will locate a column of the file. For a csv file this will typically be the column header. The position in the file can also be indicated as column 1 (1st column) up to column n (nth column). Database field is the LabCollector field to be updated. 'Mark as Record ID' indicates if this field is used to identify the record. Allow empty indicates if an empty value can be tolerated. Add/Delete allows adding/removing the tag and field combination from the parsing model.

The following is an example parsing model and file.

Add New File Parts/Tags						
	File Tag Name	Field Name	OR	Select Column Index	Database Field	Select Database Field
						<input type="checkbox"/> Mark as Record ID <input type="checkbox"/> Allow empty <input type="button" value="Add"/>
#	Parts/Tag Name/Column Index	Database Field	Record ID	Allow empty	Delete Field	
1	2	pid		No		
2	1	count	Yes	No		

```

Pasrer_10001.txt - Notepad
File Edit Format View Help
ID,PID,
1,7832,
2,pt52,
3,KJ7312,
4,6783,|
    
```

The model has two columns to look at in the file. Count is the field to identify the record in LabCollector. It may not be empty. The second column is a single field the parser will update. This field is called 'pid'.

4- PARSING

This chapter explains how to execute the parsing of a file. For additional information, refer to the knowledge base on labcollector.com or contact AgileBio.

4-1. Execution

To start parsing copy or move the files to parse into the designated folder. Parser and/or Win2Parser will detect the new files and begin to parse the files based on the models created for the designated folder.

The history of parsing actions is available in both the Win2Parser log as well as the parser home page.

5- UPGRADING AND UPDATING

To update or upgrade the **Parser Add-on** module, just download it on our website (www.labcollector.com). Depending on your setup you may need both parser and Win2Parser. Unzip the folder(s) and paste files in the following folder:

Ex. on Windows setup:

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

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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