



WeBrain Manual for Users

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1. What is WeBrain

WeBrain is a web-based computing platform that enables large-scale EEG and EEG-fMRI multimodal data storing, exploring and analyzing using cloud High-Performance Computing (HPC) facilities across UESTC and China. WeBrain connects researchers of different fields to EEG and multimodal tools and processing power required to handle the large datasets that have become the norm in the field. It also aims to construct an International Virtual Community of Brainformatics (IVCB) to set the scene for more ambitious multi-national initiatives and cooperation in brain research. It does at the same time reduce the technical expertise required to use these resources. It provides an easy-to-use for novice users (even no computer programming skills) and flexibility for experienced researchers. It is not necessary to install any software or system for users, all need is a modern web browser of any kind. A range of resources including neuroimaging analysis tools are available, as well as documents related to WeBrain.

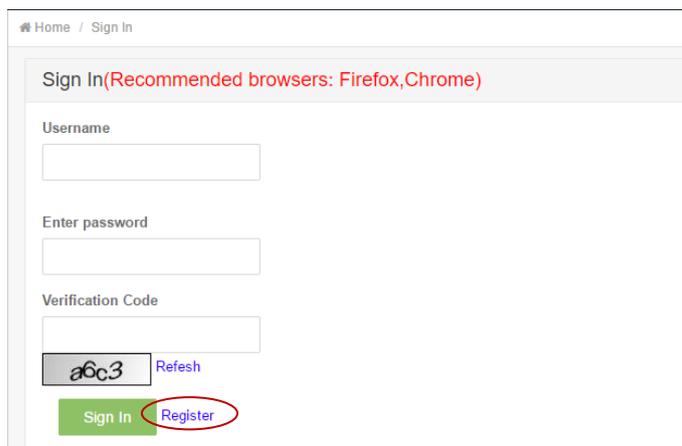
2. Getting started

2.1 Typical data workflow in WeBrain

- Upload your zipped files to WeBrain.
- Create and run a task on your zipped files on WeBrain.
- Check your processed output files on WeBrain.
- Download your output files to your computer.

2.2 Getting an account

- Click the “Visit WeBrain Portal”, you will go to login page.
- Click on “Register”.



- Fill registration information and submit (* is required). After submitting the registration, please check your email and click the email verification link. When your registration request has been approved by WeBrain administrators, your

account will be fully active.

Home / User Register

Register

Please fill the information to continue

*Username

*First Name *Last Name

*Institution Department

Research Field *Email

*Country *City

Address

*Enter password *Confirm password

*Tel.

*Verification Code
 [Refresh](#)

- Before approved by WeBrain administrators, you can:
 - use your username and password to login to view/change your personal profile,
 - view current status of your account,
 - resend the verification email,
 - resubmit the application.

My information

Please fill the information to continue

Username: user1

***First Name** ***Last Name**

***Institution** **Department**

Research Field

***Country** ***City**

address

***Email** ***Tel.**

Status

[Resend Email](#)

2.3 Upload files

Two Options for Uploading Files: 1) If you only have a few files/subjects to upload, you may find it convenient to upload them one by one (one zip file one subject); 2) or if you have many files/subjects, you may want to upload them all at once (one zip file multiple subjects).

Upload files (one zip file one subject)

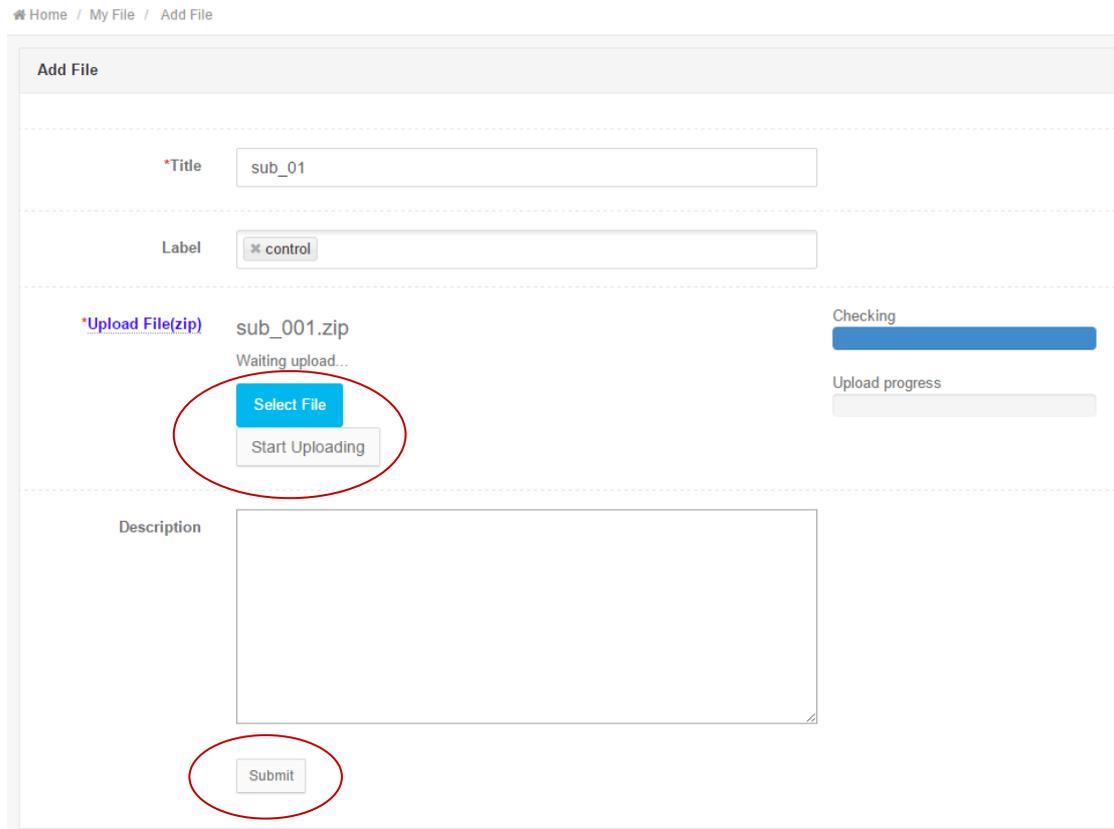
For example, there is a zip file of EEG data (one subject), a ‘Sub_01.zip’ file which contains all EEG files generated by EEG system (e.g. files of BrainProduct EEG system: sub_01.dat, sub_01.vhdr and sub_01.vmrk) or a folder consisting of the EEG files.

- Click on “+New File”

ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
142	Result File	89-test8	Completed	89-test8	Directory			2018-01-15 16:49:00	Edit Delete

- Add the zip file to upload
Title: Title of data. E.g. sub_001
Label: Label of data (e.g. task name, patient, control and task name etc.). It is used to search/filter files.

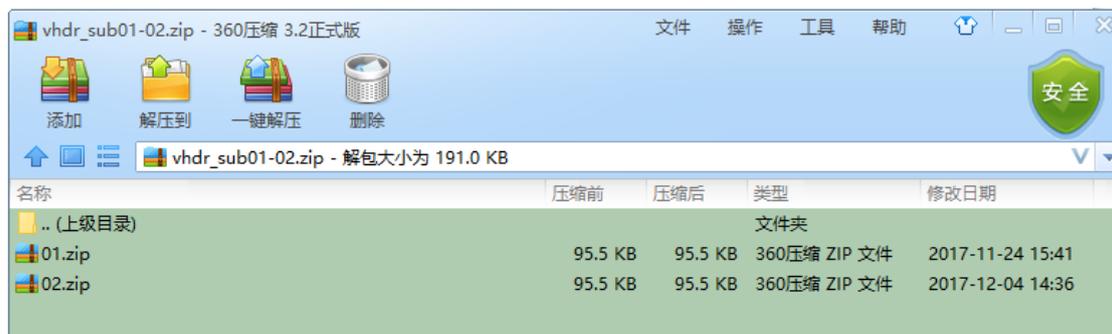
Description: User can fill any details about the data.
 Click “Select File” → “Start Uploading” → “Submit”



- You have the option of uploading zipped files. There is a memory limit of 4GB per file, 100GB per user.
- Repeat upload procedure for each zipped file.
- Continue until all files have been uploaded to the WeBrain.
- **Support to upload zipped files ONLY.**

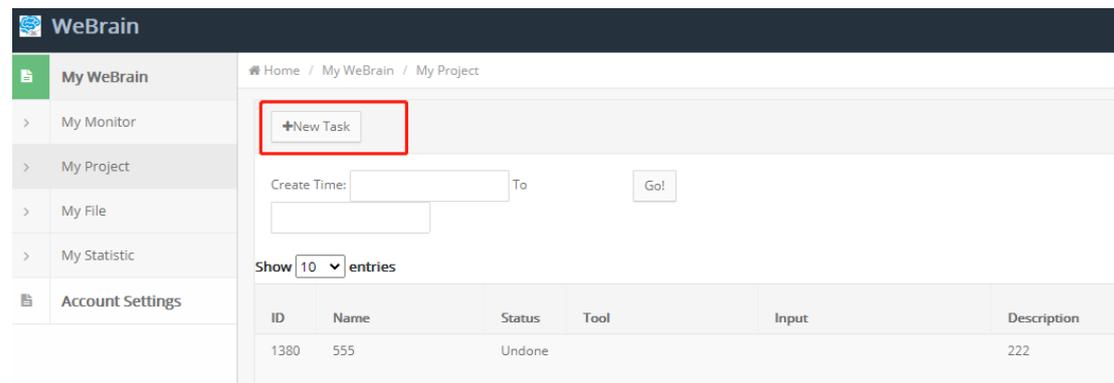
Upload files (one zip file multiple subjects)

To upload files of multiple subjects at once, you can compress all zip files of subjects to a zipped file first (e.g. a vhdr_sub01-02.zip file which contains zip files of subjects 1-2). Then you can upload and unzip them in the WeBrain system.



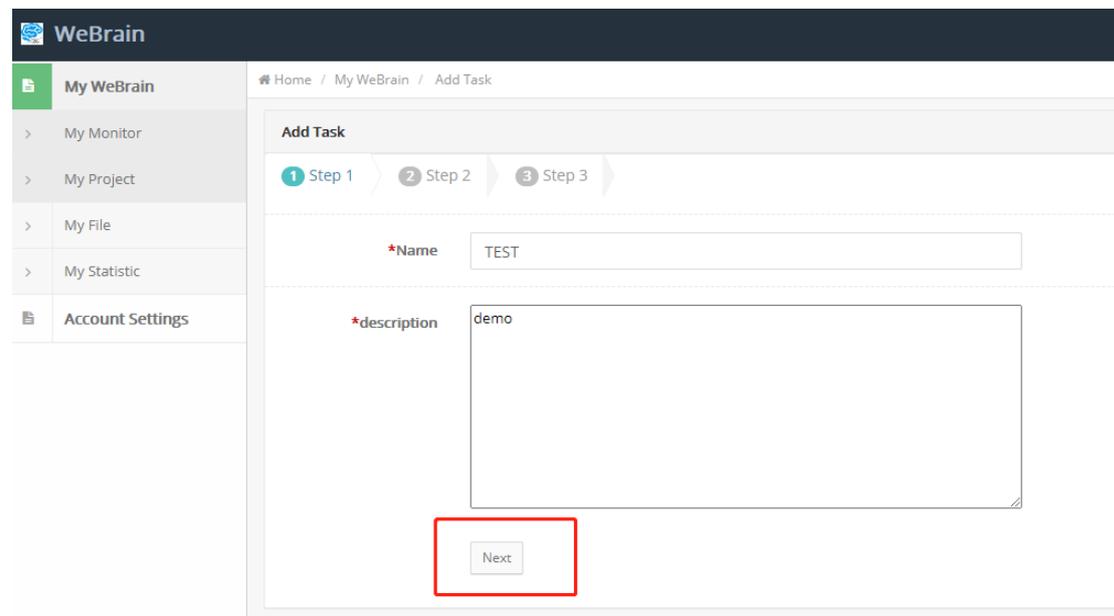
2.4 Create a task

- Click on “+New Task”



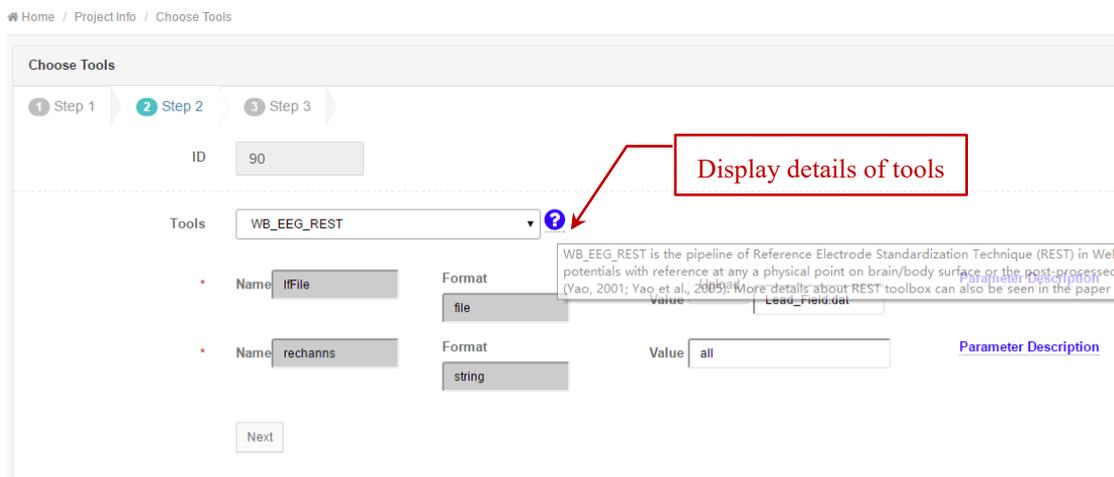
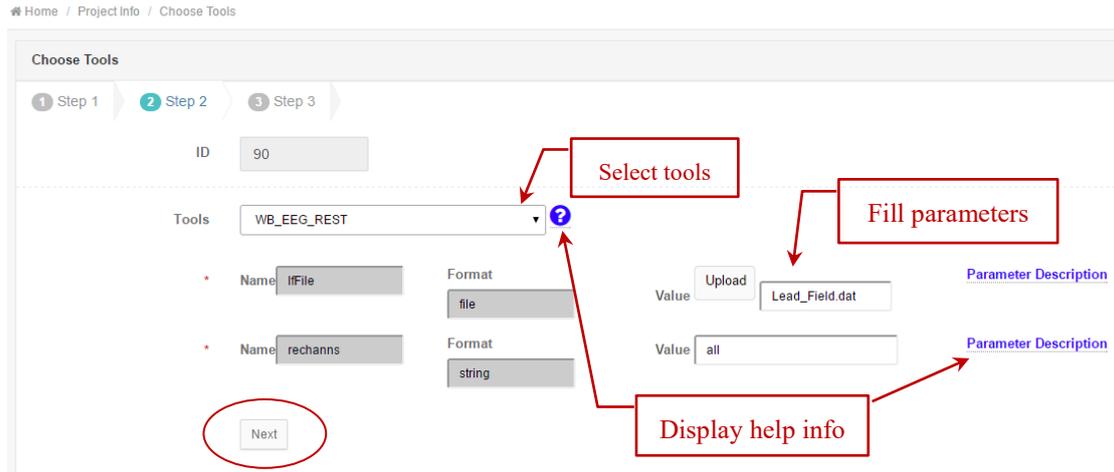
Step 1

- Fill the task name and description (required).
- Click on “Next” to next step.



Step 2

- Select tools you want to use.
- Fill parameters.
- Place the mouse on blue words “Parameter Description”, descriptions of tools and parameters will be displayed.
- Click on “Next” to select data files.



Step 3

- Select data files.
- If you don't want to run a computing task on all of the files, one method to avoid having to select each zip file individually is to search files by label. Select the label of data you have filled or set the range of upload time, and click on "Go!" to filter files.
- There are two types for selecting files: 1) If you only want to select zip files for each subject, you may select them one by one in the list of files; 2) or if you want to select files from a folder (e.g. results of a task or a unzipped folder), you may click on "🔍" to view the folder structure and select files.
- Click on "Save" to save the task.
- Or click on "Execute" to execute task directly.

Home / Task Info / Choose Tool / **Choose File**

Upload Time: To Label:

Show entries

<input type="checkbox"/>	<input type="text"/>	ID	Source	Title	File Name	Type	Label	Description	Create Time
<input type="checkbox"/>	<input type="text"/>	858	Result File	564-demo6	564-demo6	Directory		564-demo6	2020-03-12 13:22:00
<input type="checkbox"/>	<input type="text"/>	857	Upload	TEST	testdata 1.zip	File	TEST	TEST	2020-03-12 13:20:28
<input type="checkbox"/>	<input type="text"/>	856	Result File	563-demo5	563-demo5	Directory		563-demo5	2020-03-12 13:11:30
<input type="checkbox"/>	<input type="text"/>	855	Result File	562-demo4	562-demo4	Directory		562-demo4	2020-03-12 13:06:00
<input type="checkbox"/>	<input type="text"/>	854	Result File	559-demo1	559-demo1	Directory		559-demo1	2020-03-12 12:58:00

Home / Project Info / Choose Algorithm / Choose File

Upload Time: To Label:

Show entries

Select files

<input type="checkbox"/>	<input type="text"/>	ID	Source	Title	File Name	Type	Label	Description	Create Time
<input type="checkbox"/>	<input type="text"/>	146	Upload	sub01-02	vhdr_sub01-02.zip	File	test	one zip two subjects	2018-01-16 14:37:32
<input type="checkbox"/>	<input type="text"/>	142	Result File	89-test8	89-test8	File	test	89-test8 0000	2018-01-15 16:49:00
<input checked="" type="checkbox"/>	<input type="text"/>	136	Upload	sub_02	sub_002.zip	File	test		2018-01-06 16:52:22
<input type="checkbox"/>	<input type="text"/>	134	Upload	test1	data_test1.zip	File	test	test data 1	2018-01-06 16:07:05
<input type="checkbox"/>	<input type="text"/>	113	Upload	test5	01.zip	File	test		2017-12-30 10:14:36

Showing 1 to 5 of 5 entries

Filter files

Save or execute task

Home / Project Info / Choose Algorithm / Choose File

Upload Time: To Label:

Show entries

File structure

<input type="checkbox"/>	61-test6	
<input checked="" type="checkbox"/>	...121-sub_001.zip	29.80M
<input type="checkbox"/>	...95d-sub_002.zip	29.80M

Showing 1 to 9 of 9 entries

View folder and select files

- Click on “Execute” and check on “Ok”, the task will be in the list of tasks. You can click on “Edit” to edit task (**undone task ONLY**), “Detail” to see details of the task

and “Delete” to delete task (user can delete waiting, failed and undone task ONLY).

- Here we click on “Detail” to see details of a completed task.

Home / My WeBrain / My Project

+New Project

Create Time: To

Show 10 entries

ID	Name	Status	Tool	Input	Description	Creator	Create Time	Operation
90	TEST	Succeed	WB_EEG_REST	sub_002.zip,sub_001.zip	This is WeBrain demo for users.		2018-01-15 17:19:51	Detail

- Details of the task will be showed on the page.
- Click on “+” to show files in the result folder.
- Scroll down to see log information - the following is an example of part of the log (not all lines are shown).
- Click on “zip and down load” to download results. The download link will be sent to your email. Noting that the link will expire in 30 days, you need to download it as soon as possible.
- You also can download result files from “My File” panel.

Home / My WeBrain / Detail

Detail

Project ID: 90 Project Name: TEST

State: Succeed Tool: WB_EEG_REST

Begin Time: 2018-01-17 13:11:01

Output: [zip and download](#)

+ 90-TEST 2018-01-17 13:11:37

Log [Download Log](#)

```

2018-01-17 13:11:57 Start Project.....
2018-01-17 13:11:57 Project ID: 90
2018-01-17 13:11:57 loading leadfield.....
2018-01-17 13:11:57 leadfield matrix: 3000 sources/diploes X 63 channels
2018-01-17 13:11:57 loading data and calculating.....
2018-01-17 13:11:57 No. of subjects: 2
2018-01-17 13:11:57 -----
2018-01-17 13:11:57 calculating: 0a3888481be0f6374fb5407db0d1895d-sub_002
2018-01-17 13:11:57 [Warning: MATLAB has disabled some advanced graphics rendering features by
switching to software OpenGL. For more information, click <a
href="matlab:opengl('problems')">here</a>.]
2018-01-17 13:11:57 Warning: the name of the dataset has changed on disk, updating .dat & .fdt data file to the new name
2018-01-17 13:11:57 No. of channels: 66
2018-01-17 13:11:57 No. of re-referenced channels: 63
2018-01-17 13:11:57 re-referenced channels: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
2018-01-17 13:11:57 Retain un-selected channels (e.g. EMG, EOG, bad channels etc.).....
2018-01-17 13:11:57 Saving dataset...
2018-01-17 13:11:57 -----
2018-01-17 13:11:57 calculating: 6076ae00ab140374288638a427a05121-sub_001

```

Annotations:

- Show files in folder (points to the '+' icon)
- Zip and download results (points to the 'zip and download' link)
- Download log (points to the 'Download Log' link)

2.5 Download files

- There are two types for downloading files: 1) you may click on “download” to download zip files one by one in the list of files; 2) or if you want to download files at once, you may select files in the list and click on “zip and download” to download selected files.
- Noting that if you click on “zip and download”, the download link will be sent to your email and the link will expire in **30** days. Users need to download it as soon as possible.

The screenshot shows a file management interface with a table of files. The table has columns for ID, Source, Title, Status, File Name, Type, Label, Creator, Create Time, and Operation. The 'Operation' column contains 'Edit Delete' and 'Download' links. Red boxes and arrows highlight the selection checkboxes and the 'zip and download' button at the bottom.

ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
148	Result File	96-test10	Completed	96-test10	Directory			2018-01-17 13:18:00	Edit Delete
147	Result File	90-TEST	Completed	90-TEST	Directory			2018-01-17 13:12:00	Edit Delete
146	Upload	sub01-02	Completed	vhdr_sub01-02.zip	File	test		2018-01-16 14:37:32	Edit Delete Download
136	Upload	sub_02	Completed	sub_002.zip	File	test		2018-01-06 16:52:22	Edit Delete Download
135	Upload	data_test-unzip	Completed	data_test	Directory			2018-01-06 16:16:48	Edit Delete
134	Upload	test1	Completed	data_test1.zip	File	test		2018-01-06 16:07:05	Edit Delete Download
113	Upload	test5	Completed	01.zip	File	test		2017-12-30 10:14:36	Edit Delete Download
68	Upload	sub-01	Completed	sub_001.zip	File	test		2017-12-25 11:18:52	Edit Delete Download

2.6 My Monitor

- Task monitor

Green: succeed; Red: failed; Blue: terminated; gray: other

The screenshot shows a task monitoring interface with a grid of task cards. Each card displays the task ID, Algorithm, Input, State, and Creator. The cards are color-coded: Green for 'Succeed', Red for 'Failed', and Blue for 'Terminated'.

Task ID	Algorithm	Input	State	Creator
test9	WB_EEG_REST	6078ae00ab14 sub_001.zip.su	Succeed	
test17	WB_EEG_REST	sub_002.zip.on2	Succeed	
test6	WB_EEG_REST	sub_002.zip.su	Succeed	
test5	WB_EEG_REST	on201110610	Failed	
test8	WB_EEG_REST	sub_002.zip.sub	Succeed	
test2	a-1		Succeed	
test1	WB_EEG_REST		Terminated	

2.7 My file

Search/filter files

- Fill the time or label to search/filter files have been uploaded.

Home / My WeBrain / My File

+ New File

Upload Time: To Label:

Show 10 entries

View files

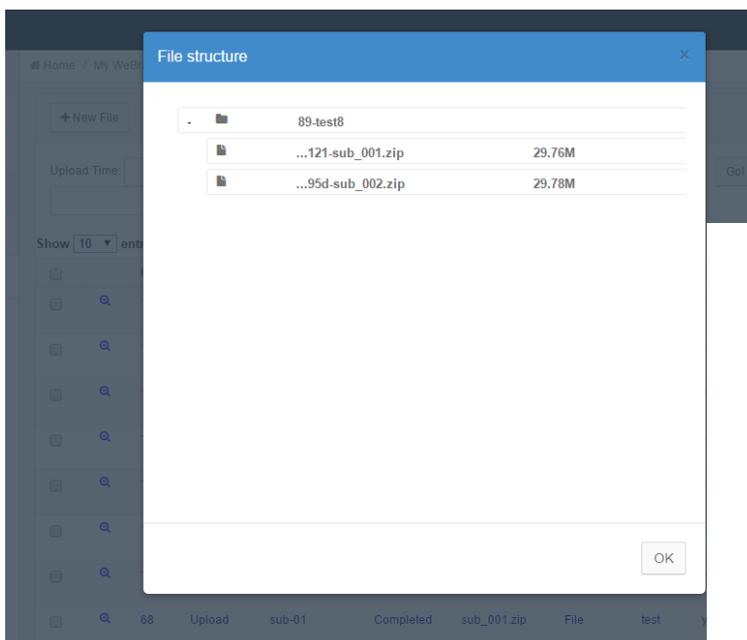
- You will see the list of files you have uploaded/calculated.
- Green: result files; Blue: uploaded files; Gray: other files.
- Click “🔍” to view the file/folder structure.

Show 10 entries

<input type="checkbox"/>	ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
<input type="checkbox"/>	42	Result File	89-test8	Completed	89-test8	Directory			2018-01-15 16:49:00	Edit Delete
<input type="checkbox"/>	139	Result File	81-test7	Completed	81-test7	Directory			2018-01-06 17:19:30	Edit Delete
<input type="checkbox"/>	136	Upload	sub_02	Completed	sub_002.zip	File	test		2018-01-06 16:52:22	Edit Delete Download
<input type="checkbox"/>	135	Upload	data_test-unzip	Completed	data_test	Directory			2018-01-06 16:16:48	Edit Delete
<input type="checkbox"/>	134	Upload	test1	Completed	data_test1.zip	File	test		2018-01-06 16:07:05	Edit Delete Download
<input type="checkbox"/>	114	Result File	61-test6	Completed	61-test6	Directory			2017-12-30 11:09:00	Edit Delete
<input type="checkbox"/>	113	Upload	test5	Completed	01.zip	File	test		2017-12-30 10:14:36	Edit Delete Download
<input type="checkbox"/>	68	Upload	sub-01	Completed	sub_001.zip	File	test		2017-12-25 11:18:52	Edit Delete Download

Showing 1 to 8 of 8 entries

First Previous 1 Next Last



Edit file

- Label and description of the file/ can be changed **ONLY**.

Show 10 entries

ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
142	Result File	89-test8	Completed	89-test8	Directory			2018-01-15 16:49:00	Edit Delete
139	Result File	81-test7	Completed	81-test7	Directory			2018-01-06 17:19:30	Edit Delete
136	Upload	sub_02	Completed	sub_002.zip	File	test		2018-01-06 16:52:22	Edit Delete Download
135	Upload	data_test-unzip	Completed	data_test	Directory			2018-01-06 16:16:48	Edit Delete
134	Upload	test1	Completed	data_test1.zip	File	test		2018-01-06 16:07:05	Edit Delete Download
114	Result File	61-test6	Completed	61-test6	Directory			2017-12-30 11:09:00	Edit Delete
113	Upload	test5	Completed	01.zip	File	test		2017-12-30 10:14:36	Edit Delete Download
68	Upload	sub-01	Completed	sub_001.zip	File	test		2017-12-25 11:18:52	Edit Delete Download

Showing 1 to 8 of 8 entries

Unzip zip and download

Delete file

- Click on “Delete”.
- Click on “Ok” / “Cancel” of pop-up window.

OK

webrain.uestc.edu.cn 显示 :
Are you sure delete it?

[Yes](#) [Cancel](#)

Home / My WeBrain / My File

Upload Time: To Label: Go!

Show 10 entries

ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
142	Result File	89-test8	Completed	89-test8	File	test		2018-01-15 16:49:00	Edit Delete Download
139	Result File	81-test7	Completed	81-test7	Directory			2018-01-06 17:19:30	Edit Delete
136	Upload	sub_02	Completed	sub_002.zip	File	test		2018-01-06 16:52:22	Edit Delete Download
135	Upload	data_test-unzip	Completed	data_test	Directory			2018-01-06 16:16:48	Edit Delete

Unzip file

- Select a zipped file and click on “Unzip”.
- **Unzip a zipped file at once ONLY.**
- **It is recommended to unzip a zipped file ONLY which includes multiple subjects (one zip file multiple subjects).**

Show **10** entries

<input type="checkbox"/>	ID	Source	Title	Status	File Name	Type	Label	Creator	Create Time	Operation
<input checked="" type="checkbox"/>	146	Upload	sub01-02	Completed	vhdr_sub01-02.zip	File	test		2018-01-16 14:37:32	Edit Delete Download
<input type="checkbox"/>	142	Result File	89-test8	Completed	89-test8	File	test		2018-01-15 16:49:00	Edit Delete Download
<input type="checkbox"/>	139	Result File	81-test7	Completed	81-test7	File			2018-01-06 17:19:30	Edit Delete Download
<input type="checkbox"/>	136	Upload	sub_02	Completed	sub_002.zip	File	test		2018-01-06 16:52:22	Edit Delete Download
<input type="checkbox"/>	135	Upload	data_test-unzip	Completed	data_test	Directory			2018-01-06 16:16:48	Edit Delete
<input type="checkbox"/>	134	Upload	test1	Completed	data_test1.zip	File	test		2018-01-06 16:07:05	Edit Delete Download
<input type="checkbox"/>	114	Result File	61-test6	Completed	61-test6	Directory			2017-12-30 11:09:00	Edit Delete
<input type="checkbox"/>	113	Upload	test5	Completed	01.zip	File	test		2017-12-30 10:14:36	Edit Delete Download
<input type="checkbox"/>	68	Upload	sub-01	Completed	sub_001.zip	File	test		2017-12-25 11:18:52	Edit Delete Download

Showing 1 to 9 of 9 entries

First Previous **1** Next Last

zip and download

2.8 My statistic

- View WeBrain usage of current user.

Stat. Type: Stat. Begin Time: To

Show **10** entries

User	Stat. Type	Record Type	Stat. Begin Time	Stat. End time	Total tasks Time	Success	Fail	Running	Not started	Upload file count	Upload file size(M)
	Year	Record	2018-01-01 00:00:00	2018-12-31 00:00:00	8	3	1	0	4	0	5
	Year	Record	2017-01-01 00:00:00	2017-12-31 00:00:00	6	4	1	0	1	2	55

Showing 1 to 2 of 2 entries

First Previous **1** Next Last

2.9 Account settings

- Change your profile and password.

Edit User

Username: youlong

*First Name *Last Name

*Institution Department

Research Field

*Country *City

address

*Email *Tel.

Change Your Password

*Current password:

*New password:

*Re-enter Password:

*Verification Code [Refresh](#)

3. Copyright:

All copyright of the WeBrain reserved by the Key Laboratory for NeuroInformation of Ministry of Education, School of Life Science and Technology, University of Electronic Science and Technology of China. WeBrain is for non-commercial use only. It is free but not in the public domain.

4. Acknowledgement

1. We thanks the REST, NIT, SPM, Fieldtrip and EEGLAB toolboxes.
2. We thanks MATLAB.
3. Original author of this user guide is Li Dong.