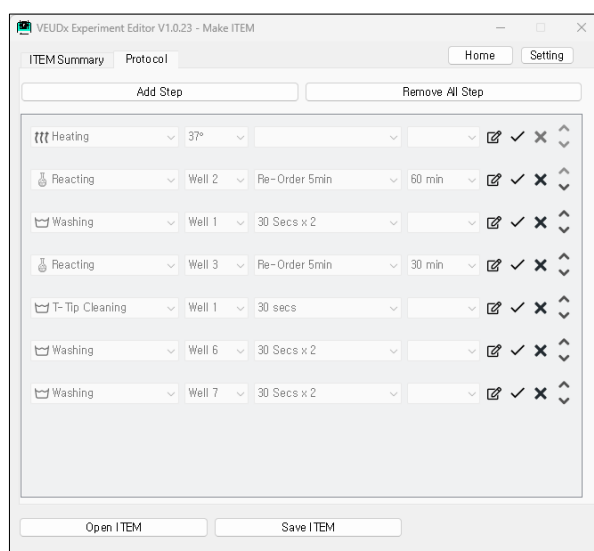
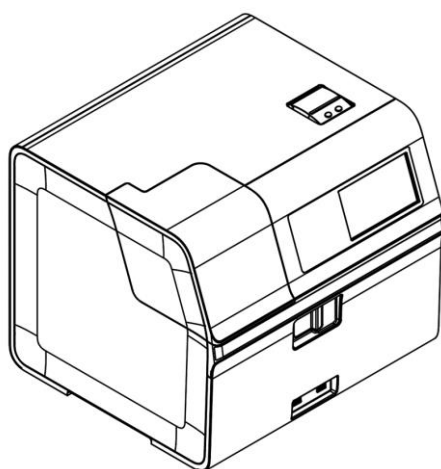


# Operation Manual

## VEUDx Experiment Editor



UM-VEUDx-1.0

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# 1. Installation

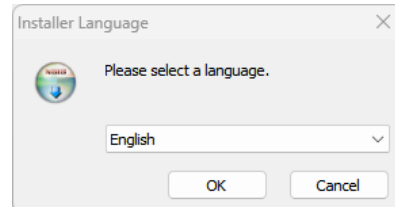
## 1.1 Installation

### 1.1.1 Execution

Execute VEUDx Experiment Editor Setup V1.x.x.exe on PC.

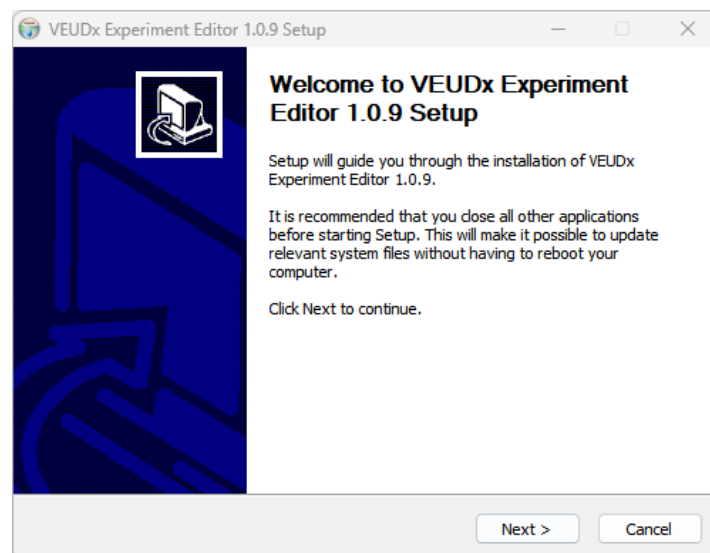
### 1.1.2 Language selection

Choose the language you want to use



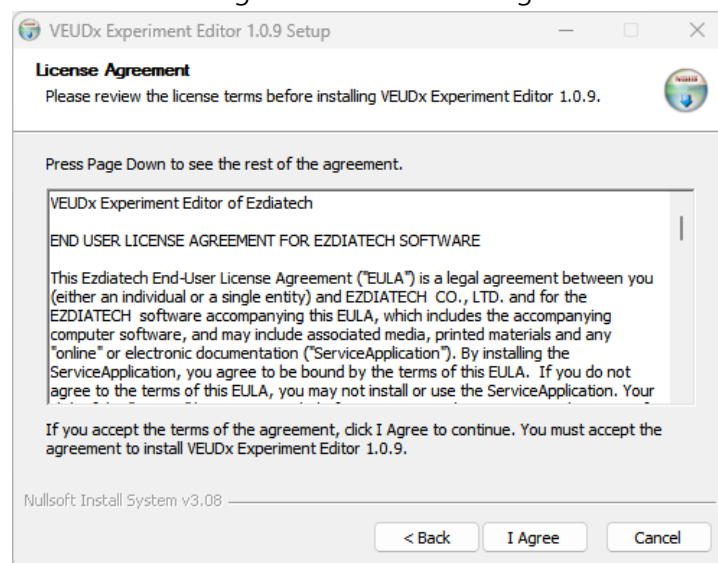
### 1.1.3 Start installation

Check the contents and click 'Next'.



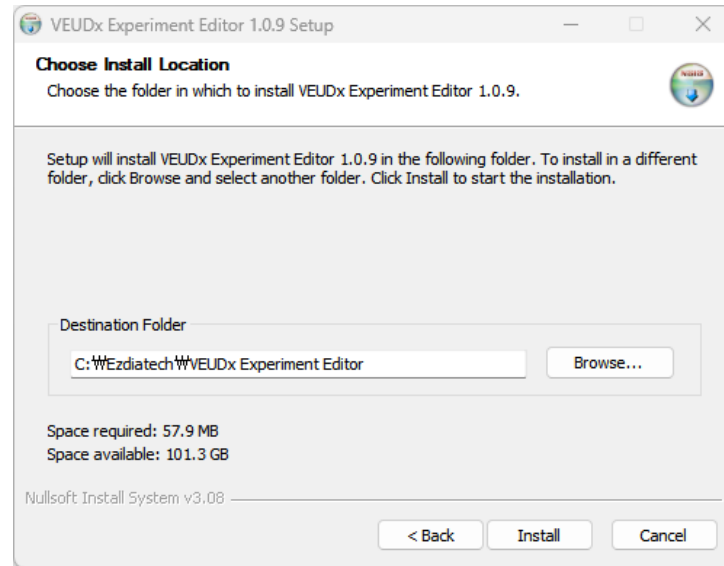
### 1.1.4 Check License

Read the license agreement and click 'I Agree'.

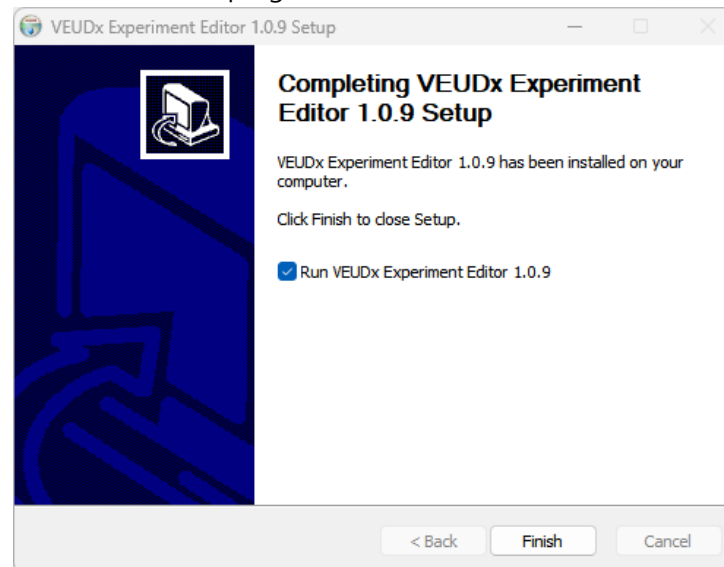


### 1.1.5 Installation

Check the installation path and click 'Install'.

**location****1.1.6 Installation completion**

Check to run the program and click 'Finish'.



## 2. Term definition

### 2.1 ITEM

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- 2.1.1 ITEM** ITEM consists of ITEM name( ex) TBI, Neurology ), Marker name, Pixel Cut, Experiment Protocol, etc.
- 2.1.2 Protocol** Protocol is a collection of experimental procedures (Steps).
- 2.1.3 Step** This is the procedure for each well. (ex) Well 6 Washing 1 min )
- 2.1.3 ITEM file** ITEM File is created as VEUDxITEM\_ITEM\_name.zip file.  
(ex, VEUDxITEM\_TBI.zip )

### 2.2 LOT

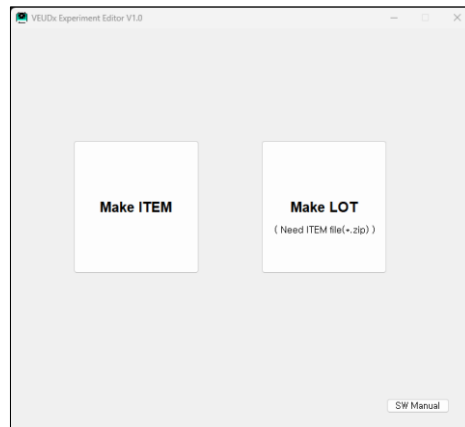
---

- 2.1.1 LOT** Depending on the produced LOT, it consists of calibration, concentration cut-off value, etc. An ITEM file is required to create a LOT.
- 2.1.2 LOT file** A LOT XML file that stores LOT information and a Barcode PDF file are created.  
Ex)  
VEUDxLOT\_TBI\_EZTB22111601.xml  
VEUDxLOT\_TBI\_EZTB22111601\_BarCode.pdf

## 3. Start

### 3.1 Start screen

**3.1.1 Start screen** On the start screen, you can select 'Make ITEM', 'Make LOT', or 'SW Manual'.



## 4. Make ITEM

### 4.1 ITEM creation start screen

**4.1.1 Start screen** ITEM Open, save and edit are possible.

- In the ITEM Summary tab, you can edit the item name, maker name by RSMP length, unit, pixel cut, experiment time, Dilution Factor, Fluorescence Exposure Time, Optical photography only, etc.
- You can edit steps in the Protocol tab.

Length	Marker	Unit	Pixel Cut (%)
200		pg/ml	Bottom 25
250		pg/ml	Top 5
300		pg/ml	
350		pg/ml	Dilution Factor 4
400		pg/ml	
450		pg/ml	Fluorescence Exposure Time1 500
500		pg/ml	

## 4.2 Edit ITEM Summary

### 4.2.1 Open ITEM

Press the "Open ITEM" button to select the previously created ITEM file.

ITEM files are in \*.zip. (ex, VEUDxITEM\_TBI.zip )

VEUDx Experiment Editor V1.0.23.2 - Make ITEM

ITEM Summary Protocol Home Setting

ITEM Name TBI Initialize

Length	Marker	Unit	Pixel Cut (%)
200	UCH-L1	pg/ml	Bottom 25
250		pg/ml	Top 5
300	GFAP	pg/ml	Dilution Factor 4
350		pg/ml	Fluorescence Exposure Time1 500
400		pg/ml	
450		pg/ml	
500		pg/ml	

Total Estimated Time (Min.)

\* RT 6 samples assumptions

☐ Optical photography only  
☐ Optical + Demagnetization only  
☐ Make RSMP QC Data

Open ITEM Save ITEM

### 4.2.2 Edit ITEM Summary

- Item name
- Marker name used by RSMP length
- Unit used by RSMP length
- Total experiment time
- Pixel Cut Bottom, Top
- Dilution Factor
- Fluorescence Exposure Time
- Optical photography only
- Optical + Demagnetization only
- Make RSMP QC Data

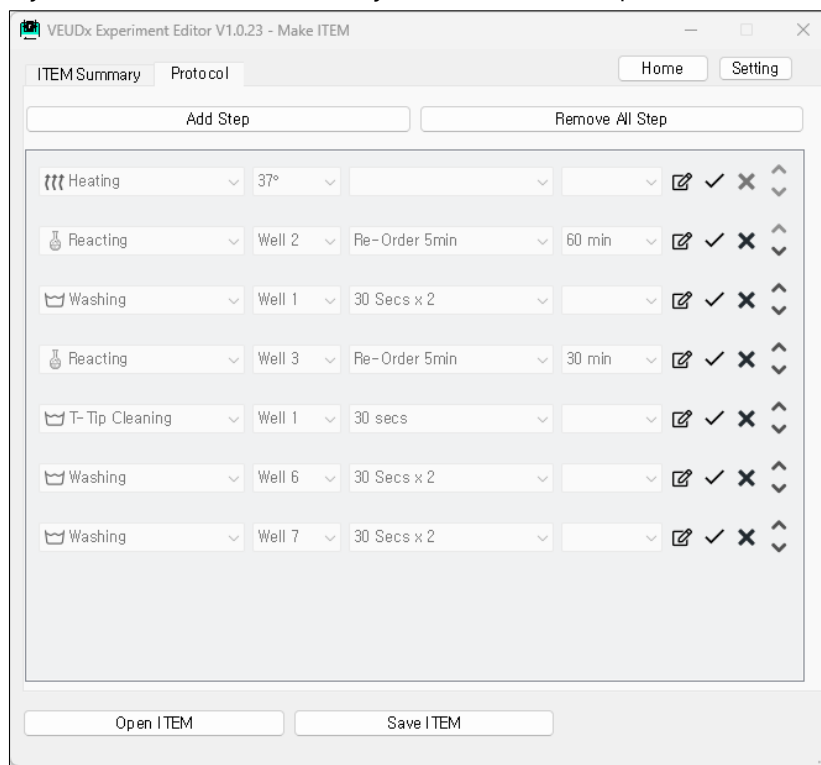
Editable.

- If "Optical photography only" is selected, only optical photography is performed for the cartridge that has been tested.
- If "Optical + Demagnetization only" is selected, only optical photography and "Demagnetization" is performed for the cartridge that has been tested.

### 4.3 Edit Protocol

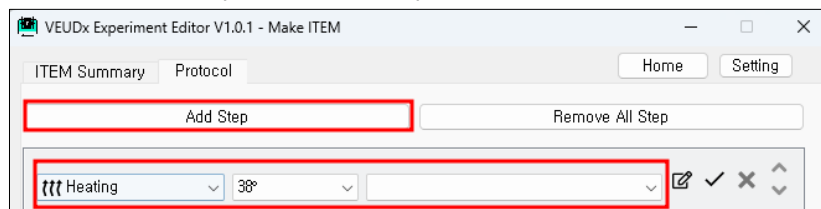
#### 4.3.1 Protocol tab

If you select the Protocol tab, you can edit the Step.



#### 4.3.2 Add Step

Click the "Add Step" box at the top and add an item.



- Selection by Category

.Heating : 30° / 35° / 37° / 38° / 39° / X / RT selectable

.Reacting : Reaction Well (Well 2~5) selectable

- Re-Order 2min (Change the location of RSMP every 2 minutes.)

-> 1~30 min selectable

- Re-Order 5min (Change the location of RSMP every 5 minutes.)

-> 1~480 min selectable

.Washing: Well1~7 and time (30 secs, 20 secsX2, 30 secsX2) selectable

.T-Tip Cleaning: Well1~7 and time (30 secs) selectable



Heating can be selected only once and must be located only in the first step.



### 4.3.3 Edit Step



- : Change edit Step mode
- : Save Step
- : Delete Step
- : Change Step Order

## 4.4 Save ITEM and Installation

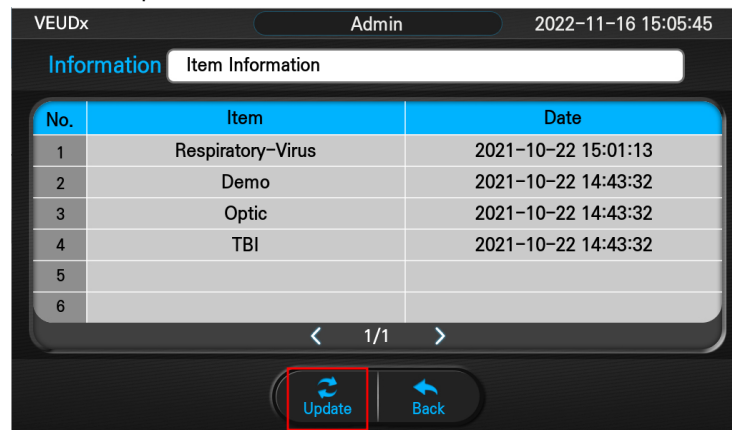
### 4.4.1 Save ITEM to PC

Click the "Save ITEM" button to create an ITEM zip file.

\*For how to save only protocol (script) for development reference, refer to the setting section.

### 4.4.2 ITEM installation on VEUDx equipment

1. Copy the ITEM file created above to an external USB memory
2. Run VEUDx equipment
3. Admin Login (Initial Admin Password: 0000)
4. Click Settings
5. Click Information
6. Click Item
7. Mounting on an external USB memory device
8. Select Update



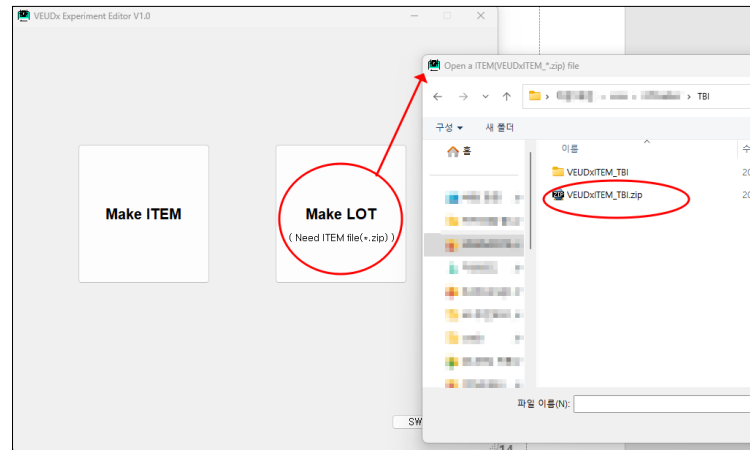
9. Select ITEM to update
10. ITEM update complete
11. Restart after shutting down the equipment

## 5. Make LOT

### 5.1 Select ITEM file

#### 5.1.1 Select ITEM file

Select ITEM file to make LOT.



### 5.2 Make LOT

#### 5.2.1 Start

Length	Marker	a	b	c	d	Make
200	200um					Make
250						Make
300	300um					Make
350						Make
400	400um					Make
450						Make
500	500um					Make

The ITEM name and Marker name read from the ITEM file are displayed.

#### 5.2.2 Enter LOT information

- 4PL Parameters (a, b, c, d)
- LOT creation date

- LOT Serial
- LOT Expire Date can be entered.
- \*Barcode Name, Note can be used as a reference.

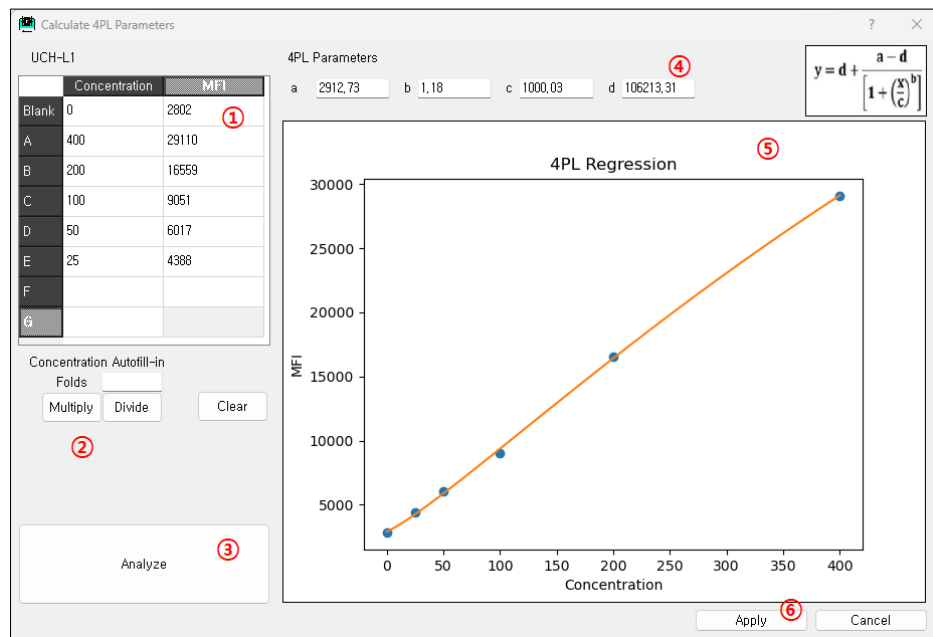
### 5.2.3 Calculate 4PL Parameters

- Select "Make" button for each Maker.

Length	Marker	4PL Parameters			
		a	b	c	d
200	200um				

**Make**

- 4PL calculation screen



- ① Concentration, MFI input  
(Copy/Paste available in Excel/Notepad)
- ② Automatically multiply and divide as much as Folds(multiples) based on A concentration
- ③ Calculate 4PL parameters and graphs according to the input concentration and MFI values
- ④ Calculated graph
- ⑤ Apply to the LOT edit screen by selecting "Apply" button

LOT Edit Code

Barcode Name:

Lot ID:

4PL Parameters

Length	Marker	a	b	c	d
200	200um	2912.73	1.18	1000.03	106213.31
250	250um				
300	300um				
350	350um				
400	400um				
450	450um				
500	500um				

Make

LOT ID:

Barcode Version:

Expire Date:

Open LOT Save LOT (PDF)

### 5.2.3 Save LOT

Click the "Save LOT(+PDF)" button

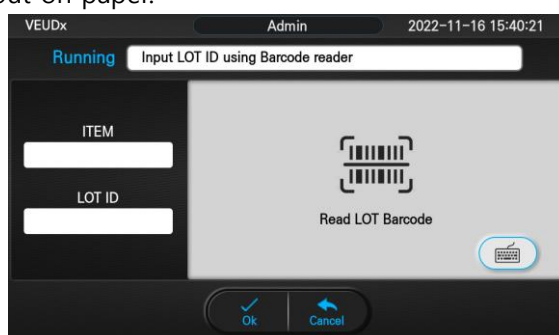
Two LOT XML files and Barcode PDF files are created.

- LOT XML file (ex, VEUDxLOT\_TBI\_EZTB22111601.xml) Used to save work

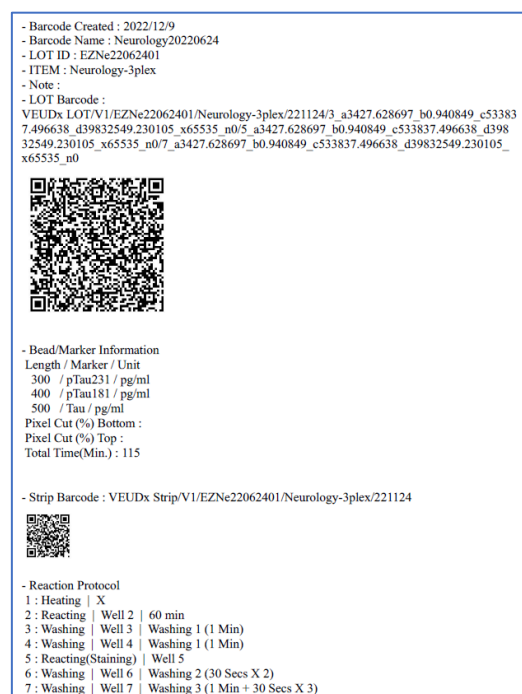
When using VEUDx equipment, it can be used when there is no Barcode Reader equipment.

- Barcode PDF file (ex, VEUDxLOT\_TBI\_EZTB22111601\_BarCode.pdf)

It is used for reading VEUDx equipment LOT/Strip Barcode by printing it out on paper.



< VEUDx equipment LOT reading screen >



< PDF file for LOT Barcode output >

### 5.2.4 Open LOT

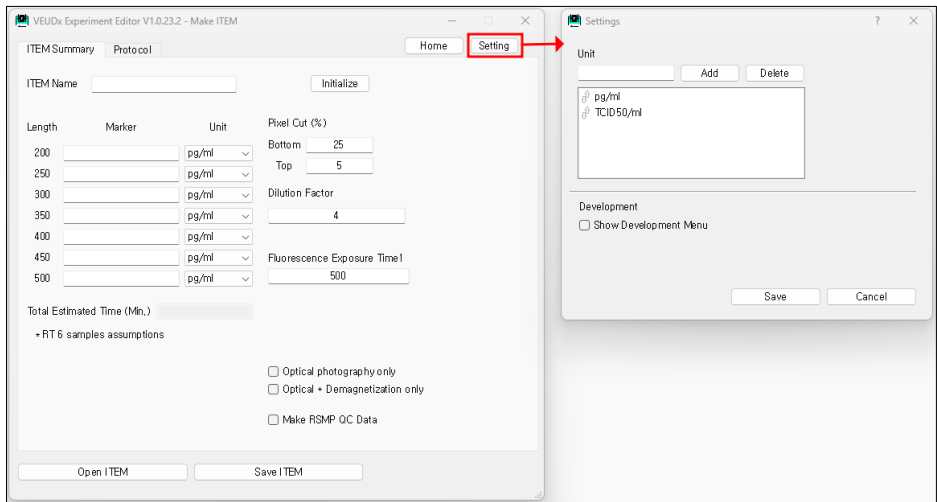
Editing is possible by selecting the saved LOT XML by pressing the "Open LOT" button.

## 6. Settings

### 6.1 Open Settings

#### 6.1.1 Open Settings

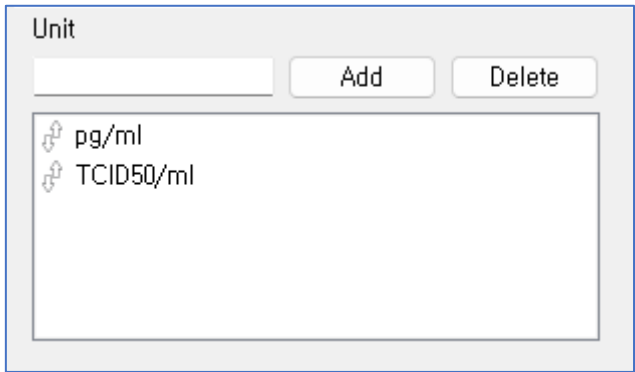
'Press the 'Settings' button.



### 6.2 Unit

#### 6.2.1 Unit

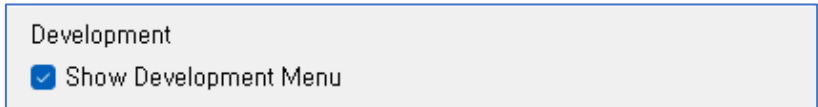
Units to be displayed in the Unit Combo List of the ITEM Summary tab can be edited.

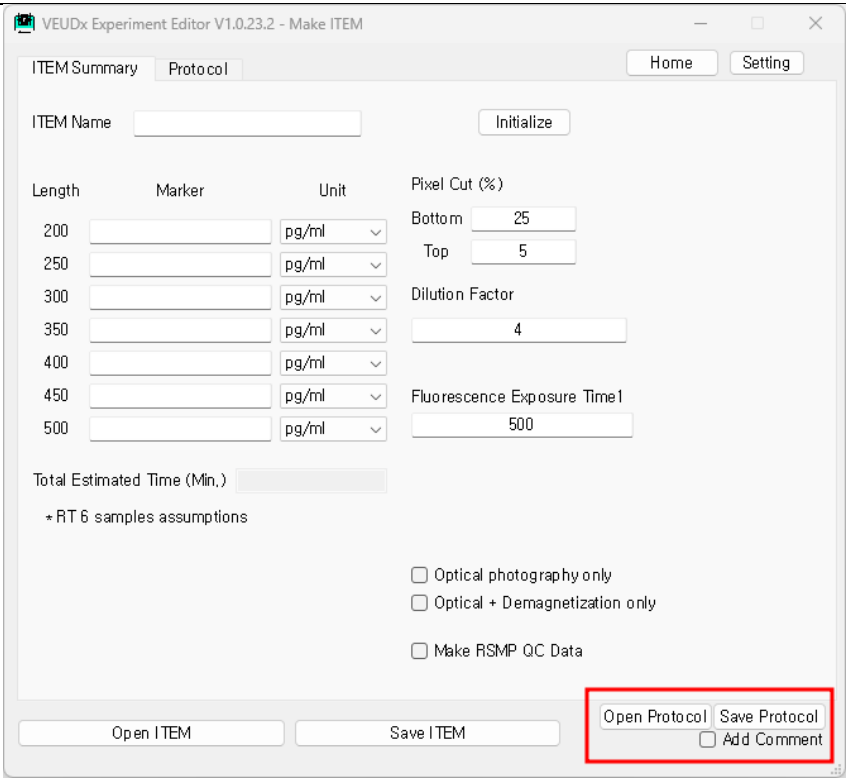


### 6.3 Development menu

#### 6.3.1 Development menu

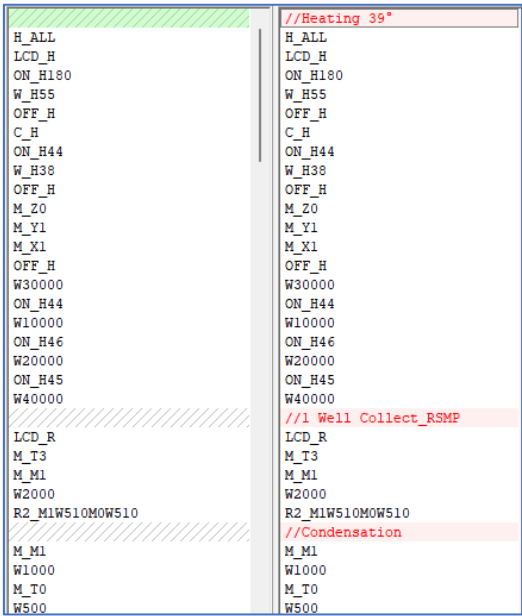
If you select the development menu, you can open/save only the protocol and display comments for analysis.





6.4.2 Save protocol file

If you press the 'Save Protocol' button, only the Protocol (Script) file can be saved separately.  
This is a development file and **cannot** be installed on a machine.  
When "Add Comment", comments are displayed on the Protocol (Script).



< Protocol display according to annotation options >