Digital Calibration Certificates Operation Manual

Group Boxjelly

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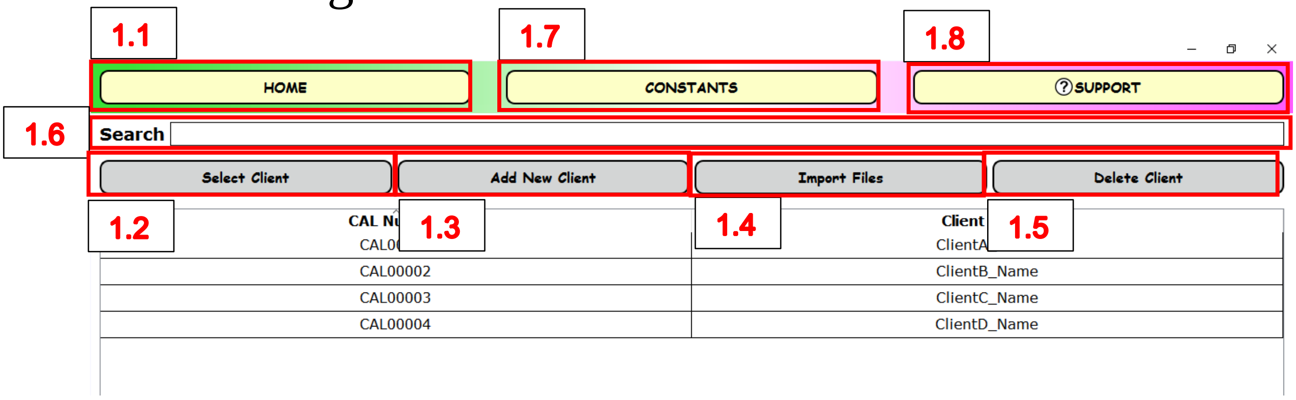
1 Home Page



1.1 Home Button

- Exists on every main window except pop-up windows to direct users to the application's home page

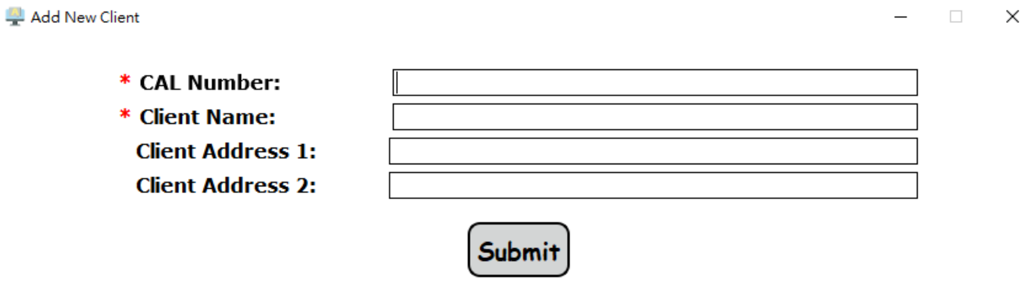
1.2 Select Client Button

- Upon successful activation, users will be directed to the Client Information page (Section 2)
- Users can also double click on any rows instead of clicking this button

Section 1.2 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the select client button without selecting any client	Please choose a Client!

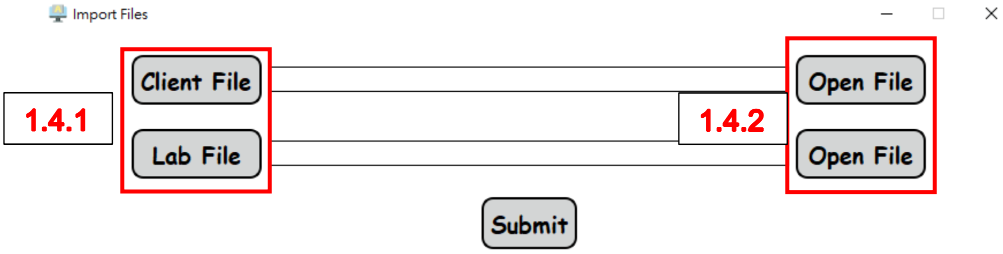
1.3 Add New Client Button

- This function allows the users to **<u>manually</u>** create new client in the application by inputting relevant information such as CAL number, client name, address etc. The label with a red asterisk denotes a mandatory field, optional otherwise
- This function should be used when the users have the client's information (e.g. name, address, chamber information) but do not have the corresponding raw excel files
- Note that the CAL number is case insensitive (e.g. CAL00001 is the same as cal00001)



Section 1.3 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the submit button without specifying both CAL number and Client Name	Please fill in CAL number and client name
2	Users entered the same CAL number again	CAL number already existed in the file system!

1.4 Import Files Button



- This function allows the users to <u>**automatically**</u> insert information for each client in the application with relevant information such as CAL number, client name, address, chamber information etc. If the client does not exist in the application, this function will create a new client record and its relevant chamber information. If the client already existed in the application, this function would insert a run directly for the associated client and chamber. **(Does not apply to section 3.2 and 3.5.2)**
- This function should be used when the users have both the client and laboratory CSV file with full information **(Does not apply to section 3.2 and 3.5.2)**

1.4.1 Client/Lab File Button

- Upon activation, a pop-up window will be shown, requesting for the client and laboratory CSV files
- Note that only <u>**CSV files**</u> will be displayed in the pop-up file window

1.4.2 Open File Button

- Upon activation, the corresponding CSV file will be opened for the users to view the content

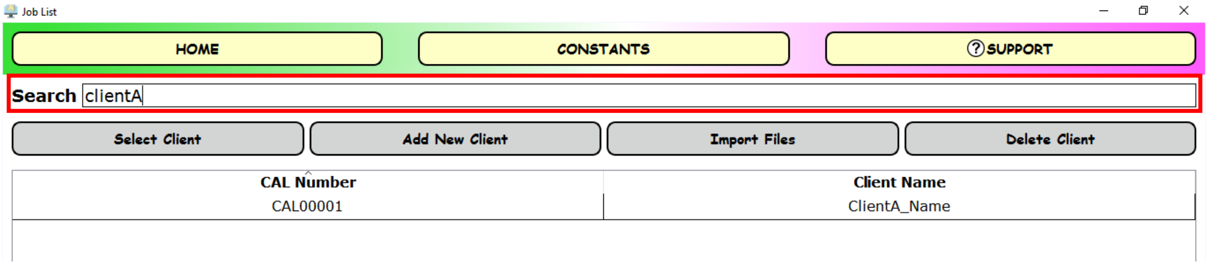
Section 1.4 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the submit button without specifying both client and lab file	Please fill in both client file and lab file path
2	Users click on the submit button with wrong client or lab file path	File not found, please check your file path.
3	Users click on the open file button (client) without specifying the file path or with wrong path	Client file not found, please check your file path
4	Users click on the open file button (lab) without specifying the file path or with wrong path	Lab file not found, please check your file path
5	Users uploaded two client files	Lab file is not MEFAC run, please check
6	Users uploaded two lab files	Client file is a MEFAC run, please check
7	Users uploaded client and lab files of different clients	CAL number from client file and lab file are not the same, please check
8	Users uploaded client file without specifying the CAL number	Client file does not contain CAL number, please check
9	Users uploaded lab file without specifying the CAL number	Lab file does not contains CAL num, please check
10	Users uploaded client file without specifying the Chamber	Client file does not contains model/serial, please check
11	Users uploaded client file with different IC HV values (compared against previous uploaded client file)	IC_HV values of all runs must be the same

1.5. Delete Client Button

- Upon activation, a pop-up warning indicating that selected user will be deleted will be shown

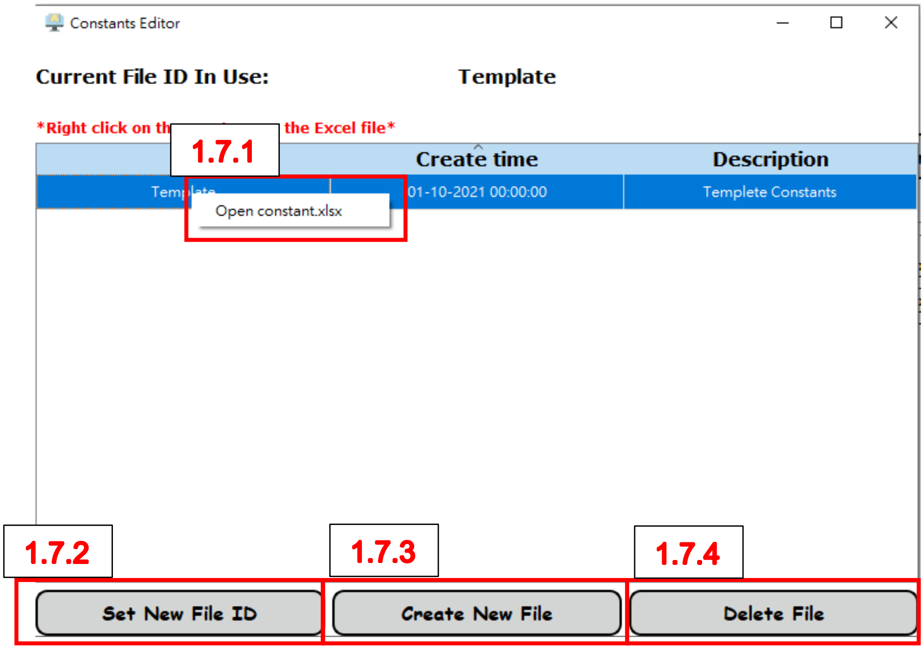
Section 1.5 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the delete client button without selecting any client	Please choose a client to delete

1.6 Search Bar



- Users can perform a dynamic search based on CAL number or client name
- Dynamic search is case-insensitive
- Valid results will be displayed on the page, blank otherwise

1.7 Constants Button



- Exists on every main window except pop-up windows to direct users to the Constant Editor pop-up window

1.7.1 Right click on any row

- Users can open the excel file and modify the content

1.7.2 Set New File ID

- Users can select which constant excel files to use to perform MEX analysis calculations

1.7.3 Create New File

- Users can create a new constant excel file based on a base template. A new row will be created upon successful creation of the file

1.7.4 Delete File

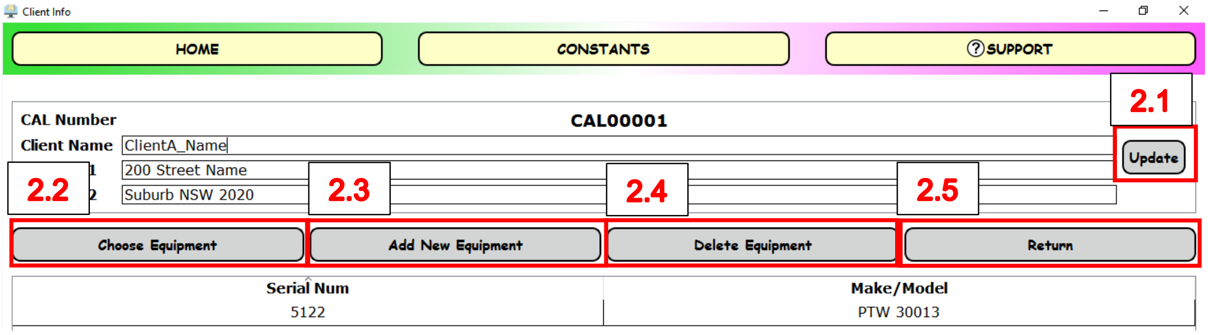
- Users can delete any constant excel file except the template excel file. If all files are deleted, then the application will perform MEX analysis using the template excel file

Section 1.7 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the set new file id button without specifying any row	Please choose a constants
2	Users click on the delete file button without specifying any row	Please choose a constants
3	Users select the template row and click on the delete file button	Sorry, template constants cannot be deleted
4	Users click on the delete file button when opening the same file	Please close the constants file first

1.8 Support Button

- Exists on every main window except pop-up windows to open the operations manual document (this document)

2 Chamber Page



2.1 Update Button

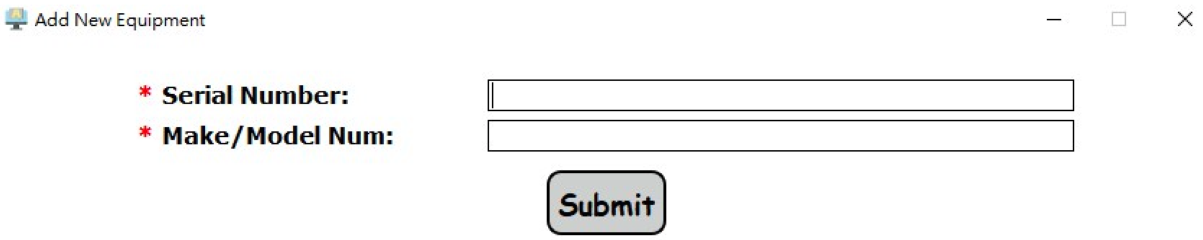
- Upon activation, the client's information will be updated for that specified CAL number
- A pop-up window will be shown to inform user that the information is updated successfully
- Updated information will be reflected in all existing files in the application (no need for users to re-upload previous runs)

2.2 Choose Equipment Button

- Upon successful activation, users will be directed to the Equipment Information page (Section 3)
- Users can also double click on any rows instead of clicking this button

Section 2.2 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the choose equipment button without specifying any row	Please choose an equipment

2.3 Add New Equipment Button



- This function allows the users to **<u>manually</u>** create new equipment for a specific client in the application by inputting mandatory information such as serial number and make/model number

Section 2.3 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the submit button without specifying both Serial Number and Make/Model Number	Please fill in Make/Model and Serial
2	Users try to add the same equipment again	Equipment already existed in the job

2.4 Delete Equipment Button

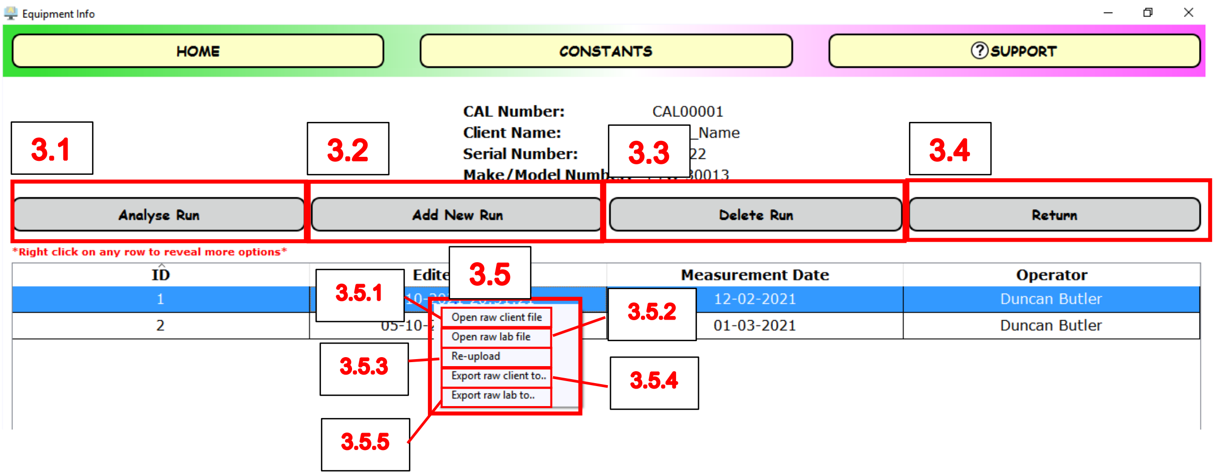
- Upon activation, a pop-up warning will be shown to indicate that selected user will be deleted

Section 2.4 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the delete equipment button without selecting any equipment	Please choose an equipment to delete

2.5 Return Button

- Upon activation, users will be brought back to the previous page

3 Equipment Information Page



3.1 Analyse Run Button

- Users can select one or more than one runs to be analysed
- Single run can be selected by clicking on any rows
- Multiple runs can be selected by using normal Windows operations:
    1. CTRL+A (select all)
    2. CTRL + left-mouse click (user's custom selection)
    3. CTRL + mouse drag or just mouse drag
- Upon successful activation, users will be directed to Analyse Run Page (Section 4).
- Users can also double click on any row instead of clicking this button

Section 3.1 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the analyse run button without selecting any run(s)	Please choose at least one run to analyse
2	Other situations that lead to failure to analyse when users click on the analyse run button, including but not limited to the incorrect format of the uploaded file, the content of the file cannot be parsed, and the file is damaged, etc.	Cannot resolve raw files. Please check the data

3.2 Add New Run Button

- This function allows the users to insert new run in the application that is tagged to a specific client and equipment
- Refer to Section 1.4 for a detailed functionality explanation

3.3 Delete Run Button

- Upon activation, a pop-up warning will be shown to indicate that selected run(s) will be deleted
- Multiple runs can be deleted by using normal Windows operations:
    1. CTRL+A (select all)
    2. CTRL + left-mouse click (user's custom selection)

Section 3.3 Possible Warning Messages		
S/N	**Trigger**	**Warning Message**
1	Users click on the delete run button without selecting any run(s)	Please choose a run to delete

3.4 Return Button

- Upon activation, users will be brought back to the previous page

3.5 Right-click A Row for any Run

- Users can perform multiple operations in this page

3.5.1 Open Raw Client File

- Upon activation, raw client file will be opened

3.5.2 Open Raw Lab File

- Upon activation, raw lab file will be opened

3.5.3 Re-Upload

- Users can re-upload a pair of client and lab files
- Edited time will be updated accordingly to reflect the change
- Refer to Section 1.4 for a detailed functionality explanation

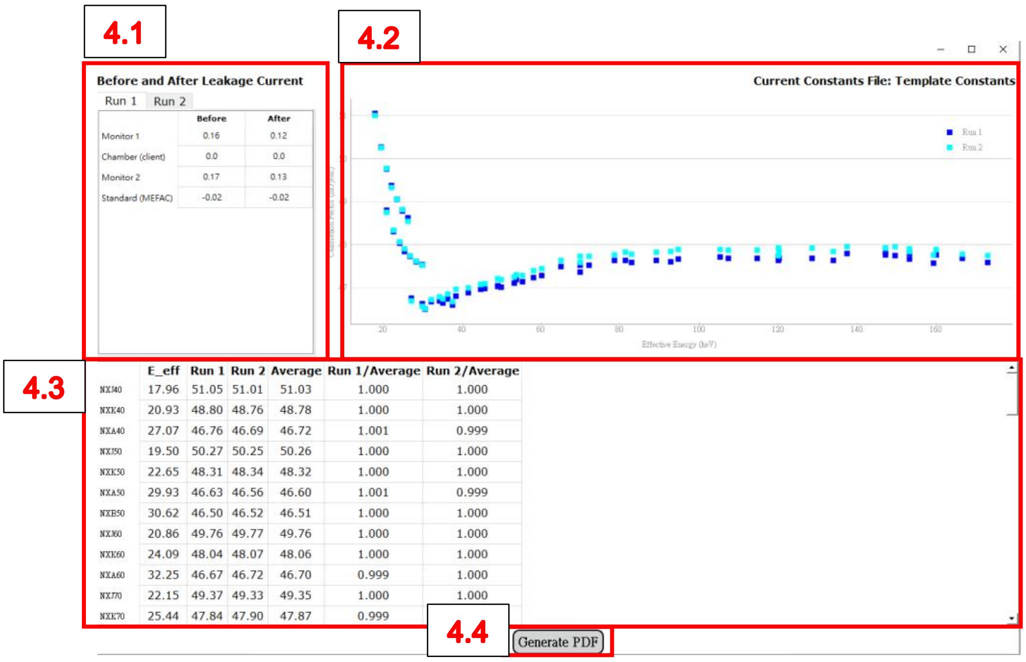
3.5.4 Export Raw Client File

- Users can export the client file to a user desired directory

3.5.5 Export Raw Lab File

- Users can export the lab file to a user desired directory

4 Analyse Run Page



4.1 Leakage Current Table

- Users can obtain leakage current values for all selected runs
- Cell will be highlighted in yellow if the absolute current value surpasses **<u>0.2</u>**

4.2 Dot Chart

- Users can zoom in or out to their desired positionings
- Users can drag the chart to their desired positionings
- An “A” icon will be shown on the bottom left of the Dot Chart to automatically position the chart back to its default position
- Users can hoover over each data point to obtain the calibration coefficient and effective energy value
- Users can choose to hide or unhide run(s) from the chart by left-clicking on the legend (shown on the top right of the chart)

4.3 Summary Table

- Table is sorted by beam quality first then by tube voltage in ascending order
- Table contains details of all selected run(s)
- "Average" column contains the average results of the selected run(s)

4.4 Generate PDF Button

- Upon activation, users will be prompted to select a directory to store the PDF report

4.4.1 Set Custom Margins for PDF Report

- If there are any pagination issues, users would have to set the margins manually in the pdf_template.xlsx
- pdf_template.xlsx is located at (**DC-Boxjelly\app\export**)
- The custom margin can be found in the pdf_template.xlsx file by navigating to Page Layout -> Margins -> Custom Margin.
- Set the margins according to the image provided below