E-platform for School Development & Accountability (ESDA) Version 5.2.x

Operation Manual

November 2023

Table of Contents

About this Manual

This Operation Manual aims to provide a step-by-step reference for the operation of ESDA. The content of this manual is grouped and categorised by the main modules of ESDA and its respective operation tasks.

The target readers of this Operation Manual are System Administrator, Survey Administrator, KPM Data Administrator and those who are authorised to view ESDA reports.

There are eight chapters in this Operation Manual, including:
- Chapter 1   Introduction to ESDA
- Chapter 2   System Tools
- Chapter 3   User Management
- Chapter 4   Survey Management
- Chapter 5   Data Input
- Chapter 6   Report Management
- Chapter 7   Data Submission
- Chapter 8   School-based Survey Management

Contact Us

Education Bureau (EDB) welcomes schools to share with us their opinions and good practices in using ESDA. Please contact the Indicators Section of the EDB to express any views and suggestions, or to share experiences by phone, fax or email.

You can contact the Indicators Section of the EDB by the following methods for enquiring about the technical problem of ESDA.
- Telephone: 2892 6577 / 2892 6476 / 2892 6544 / 2892 6507
- Fax: 2119 9074
- Email: indicators@edb.gov.hk

Note: For enquiries by email or fax, please state the technical problem encountered, school name and contact person with phone number.

Chapter 1 Introduction to ESDA

ESDA facilitates schools' collection and management of their school self-evaluation (SSE) data for enhancing their effectiveness in SSE. ESDA can run on both the schools' Local Area Network (LAN) and Wide Area Network (i.e. Internet) with Google Chrome v100 or above.

ESDA v5.0.x, there are seven main component modules, namely, System Tools, User Management, Survey Management, Data Input, Report Management, Data Submission and School-based Survey Management.

1.1 About ESDA v5.0.x

This section describes the pre-installation work of System Administrator, such as understanding hardware requirements and gathering installation related information.

1.1.1   Suggested System Configuration

To ensure adequate performance of ESDA v5.0.x, the following configurations are suggested for the system.

	Basic Requirements	Suggested Configurations
Processor	2 core 64-bit (x64) processor	4 core 64-bit (x64) processor
Memory	4 GB RAM	16 GB RAM
Harddisk	128 GB	512 GB
Network Configuration	Support TCP/IP network with a static IP address	Support TCP/IP network with a static IP address
Operation System	Windows Server 2016 or above	Windows Server 2019 or above
Supported Internet Browser	Google Chrome version 87 or above Opera version 61 or above Safari version 14 or above Edge version 46 or above Firefox version 86 or above	Google Chrome version 87 or above Opera version 61 or above Safari version 14 or above Edge version 46 or above Firefox version 86 or above

Adequate system requirements depend on how to conduct surveys by schools. For example, the "Suggested Requirements" above can support students at a year level (almost 200 students) to complete an online survey simultaneously. Schools are suggested to use a faster processor and spare more memory if it is planned for more students to complete an online survey simultaneously.

In general, schools should install ESDA v5.0.x on Windows Server 2016 (or its latest version).

1.1.2   Installation of Necessary System Patch(es) and Browser

The EDB suggests that schools install the latest service pack and update security patches of Windows Server 2016 or above. For details, please refer to the Microsoft website (http://windowsupdate.microsoft.com).

The EDB suggests that schools use the browser of Google Chrome v100 or above.

1.1.3   Other Recommended Software

It is always recommended that schools install Anti-Virus software and update the latest virus signature on the computer in which ESDA is installed.

1.1.4   Verify Network Settings

Before installation, please ensure that "Port 443" is available. If the "Port 443" is used by another application, please close that application for installing ESDA v5.0.x. If the "Port 443" is set for other uses of the server, System Administrator may refer to Appendix 1 for setting up ESDA with other ports.

Before installation, please set the ESDA v5.0.x system recommended browser as the default browser of the server.

1.1.5   Reference website for Microsoft licensing

Windows Server 2016 supports two licensing modes, device-based and user-based (they are also known as Windows Device CALs and Windows User CALs). For scenarios where multiple users share a device within an organisation, Windows Device CALs save budgets and simplify management. On the other hand, Windows User CALs are the best choice if there are many users in your organisation who need access to the network from a variety of unknown devices, or if many employees have to access the network through multiple devices.

For details, please refer to the Microsoft License Agreement website (http://www.microsoftvolumelicensing.com/userights/).

1.2 About Installation

This session provides the steps to install ESDA in Windows Server 2016. In addition to Windows Server 2016, ESDA can also be installed in the Windows Server 2019 operating system. The three main tasks of installing ESDA are as follows:

- Pre-installation checklist
- Install ESDA
- Checking after installing ESDA

In ESDA v5.0.x, version upgrade is a built-in function, users only need to connect the ESDA v5.0.x system to the Internet and the upgrade procedure is almost automatic. For details, please refer to the Section 2.5.

1.2.1   ESDA Installation

If the preparatory tasks have been completed, System Administrator may start to install the ESDA.

Step1: Download ESDA

1) Login to the Windows Server as an Administrator or as a user with administration rights.
2) Launch the browser and enter the URL https://www.edb.gov.hk/en/sch-admin/sch-quality-assurance/performance-indicators/esda/download.html for downloading the full ESDA installation programme (esda-v5.0.x.exe) to your computer.

Step 2: ESDA Installation

1) Double-click "esda-v5.0.x.exe". Select "I accept the agreement" and click "Next".
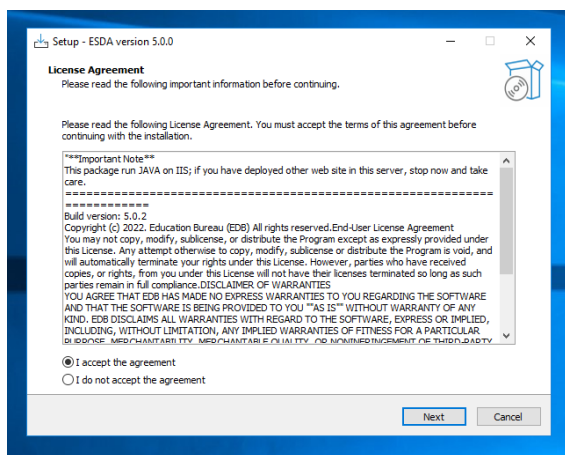
2)   The ESDA v5.0.x will be installed in a default folder, click "Next".

> *Note:*
>
> *System Administrator can change the destination folder by clicking "Browse" button.*
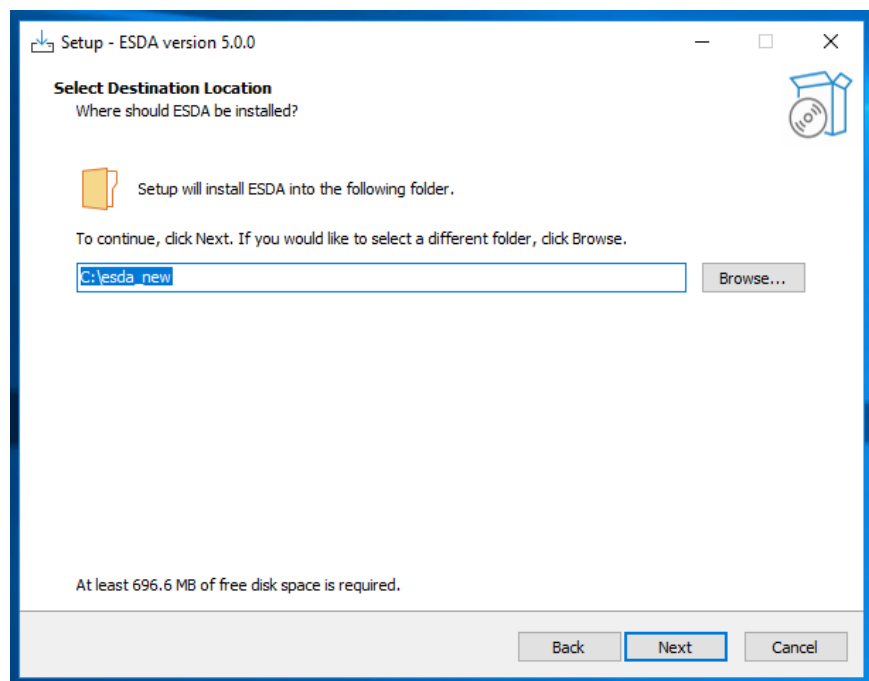
3)   Click "Install" to start the installation.
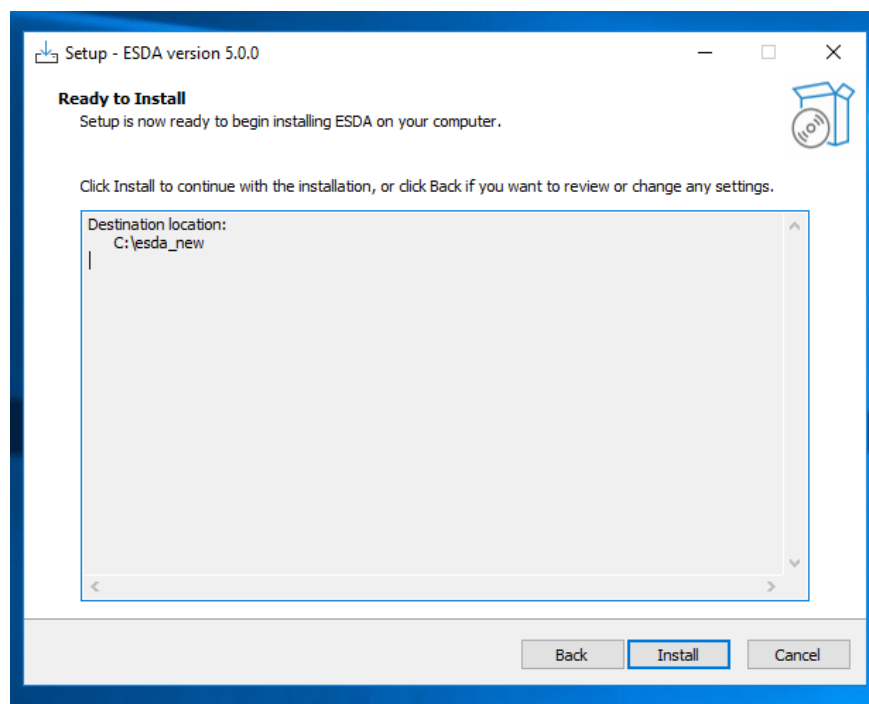
4) Installing ESDA v5.0.x.
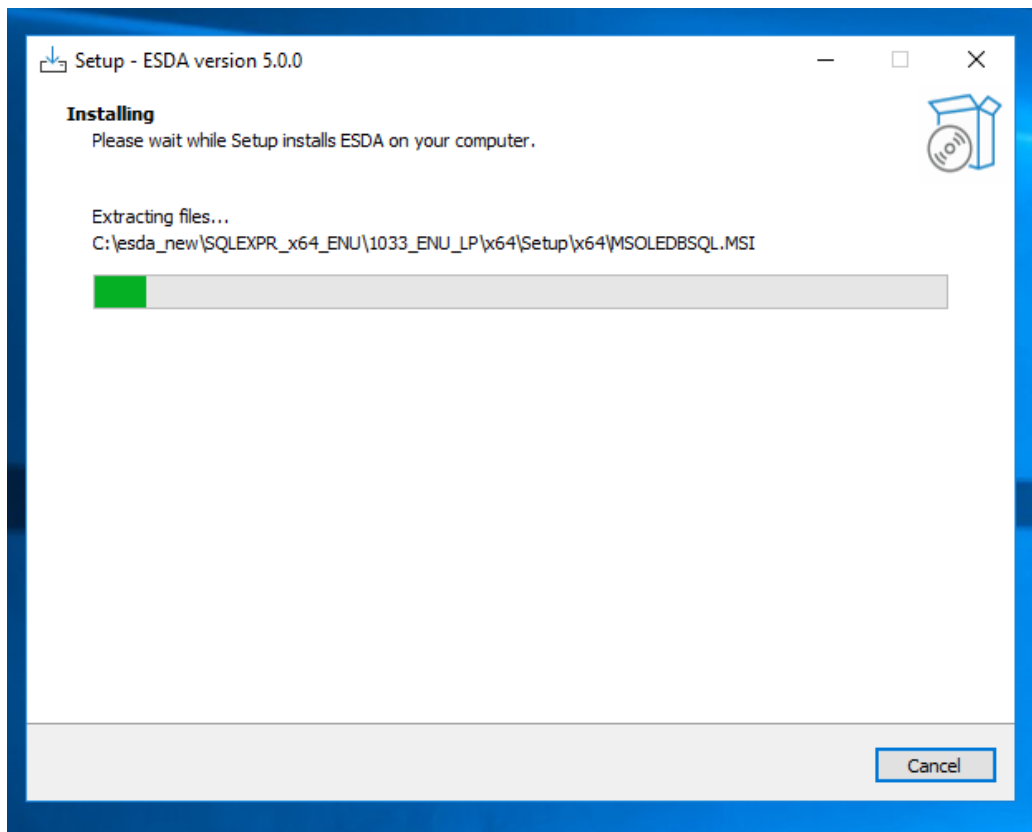
5) Installing the MSSQL.
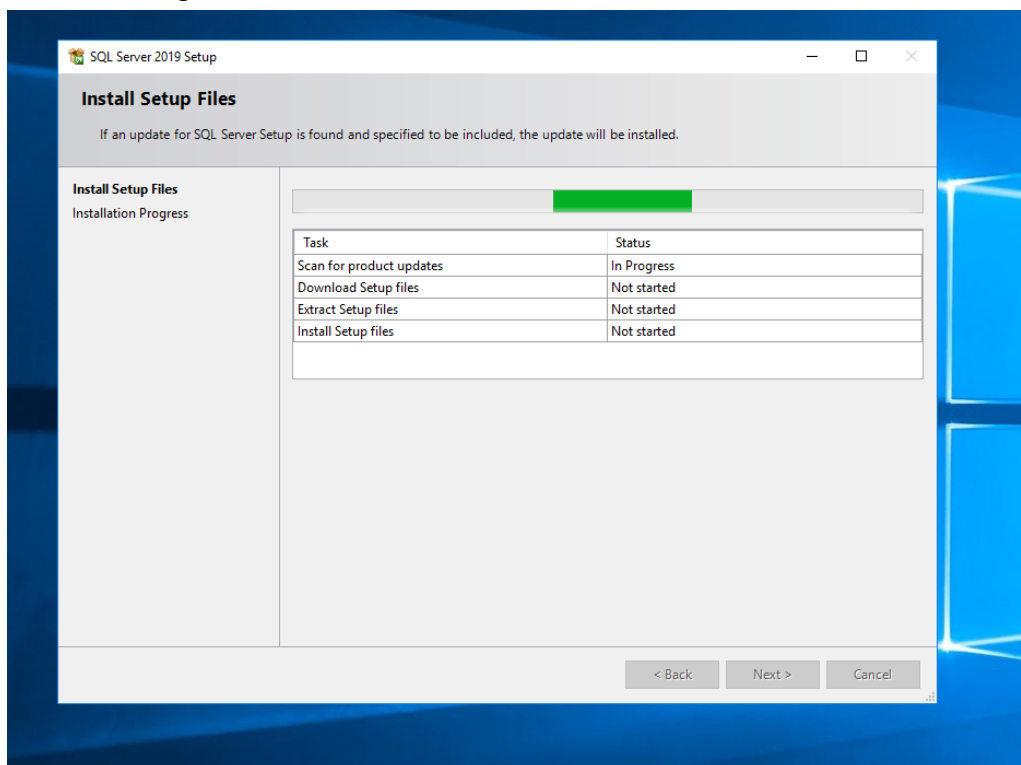
6) Click "Next" when the installation is completed.
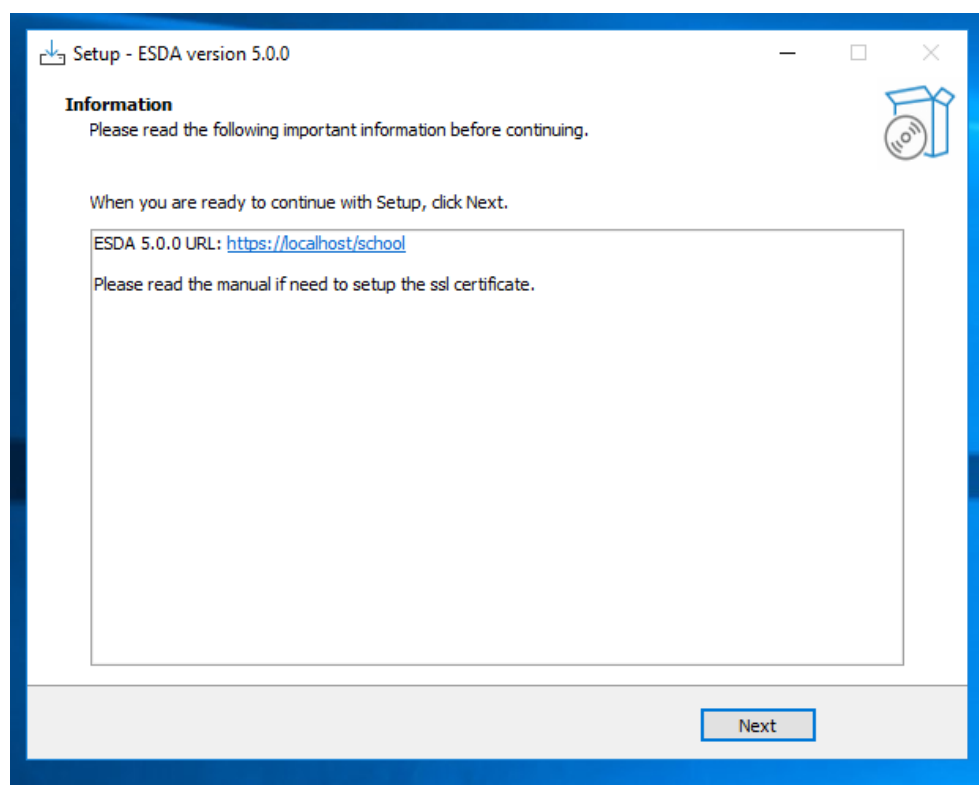
> **Note:**
>
> *If ESDA v4.x.x is detected on the same server during installation, ESDA v5.0.x will be registered automatically.*
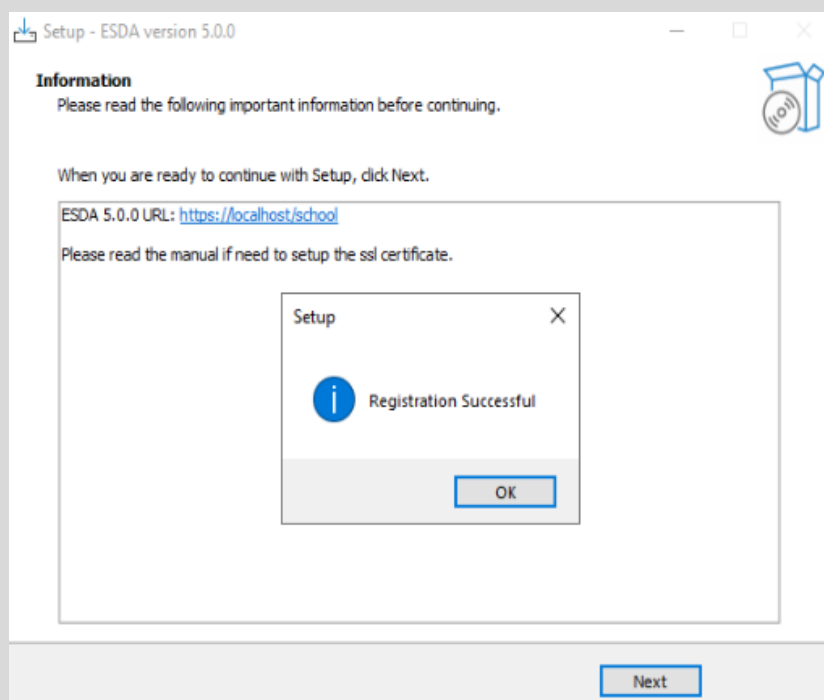
7) Click "Finish" to close the installation programme.
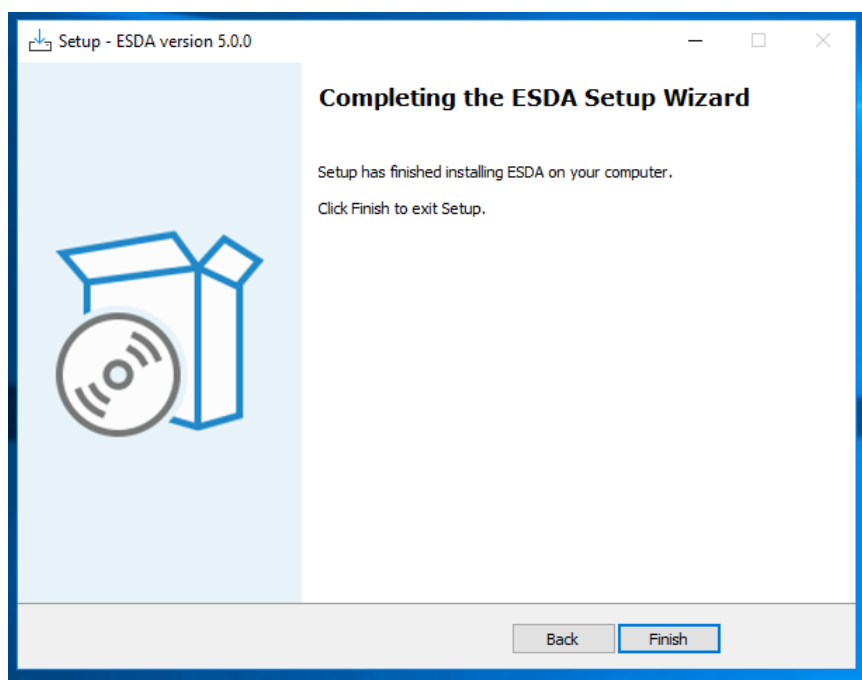
8) Restart Windows Server after the installation is completed.

1.2.2   Set up e-Certificate

In order to set up ESDA v5.0.x to run on port 443, a valid e-Certificate is required. Schools can purchase a valid e-Certificate from a recognised Certification Authority (CA) or create a self-signed e-Certificate:

A) Using an e-Certificate purchased from a Certification Authority

1) **Make sure the purchased e-Certificate is in PKCS#12 format (the extension is ".p12").** If the e-Certificate is not in PKCS#12 format, please use other tools to convert the e-Cert to the PKCS#12 format first, for example using openssl to convert the e-Cert from ".crt" file to ".p12" file. Please refer to its website https://www.openssl.org/ for download and use openssl.

2) Use a System Administrator account to login to the server where the ESDA v5.0.x is installed.

3) Copy the e-Certificate in PKCS#12 format (e.g. "cert.p12") to the server (e.g. C:\temp\cert.p12).

4) Open "Windows Command Prompt" and enter the following command to convert the e-Certificate in PKCS#12 format into ".keystore".

```
"%JAVA_HOME%\bin\keytool" -importkeystore -srckeystore C:\temp\cert.p12 -srcstoretype
PKCS12 -destkeystore C:\temp\.keystore -deststoretype JKS
```

5) Enter a new password for the ".keystore" file, **the password should be the same as the password for the e-Certificate in PKCS#12 format**.

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -importkeystore -srckeystore C:\temp\cert.p12 -srcstoretype PKCS12 -des
tkeystore C:\temp\.keystore -deststoretype JKS
Importing keystore C:\temp\cert.p12 to C:\temp\.keystore...
Enter destination keystore password:
Re-enter new password:
```

6) Enter the password for the e-Certificate in PKCS#12 format.

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -importkeystore -srckeystore C:\temp\cert.p12 -srcstoretype PKCS12 -des
tkeystore C:\temp\.keystore -deststoretype JKS
Importing keystore C:\temp\cert.p12 to C:\temp\.keystore...
Enter destination keystore password:
Re-enter new password:
Enter source keystore password:
```

7) Please copy the certificate ". keystore" in the above path (e.g. C:\temp.keystore) to the installation path "C:\esda_new\apache-tomcat-9.0. xx\conf".

8) Edit the Apache Tomcat configuration file (e.g. C:\esda_new\Apache_Tomcat_9.0\conf\server.xml) with a text editor (e.g. Notepad) and change the attribute "keystorePass" from "changeit" to the password entered in step 5.
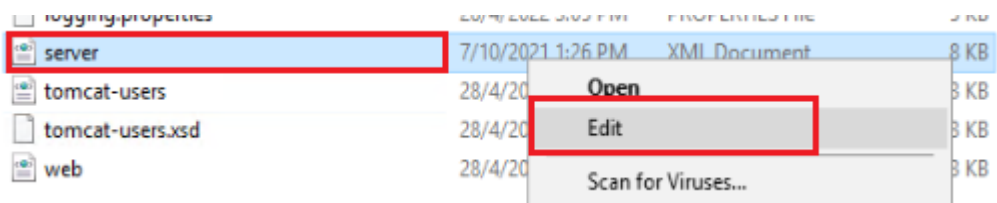
> **Note:**
>
> If you need to re-establish the e-Certificate in PKCS#12 format to ".keystore" file, please first delete the certificate ".keystore" in the path of step 7 and start over with step 4.

9) Open "Windows" and "Windows Administrative Tools", then select "Services".

10) Select "Apache Tomcat 9.0 ESDA" and click "Restart".

B) Creating a self-signed e-Certificate

1) Login as an Administrator to the server where the ESDA v5.0.x system is installed.

2) Enter the following command at "Windows Command Prompt":

「"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:< domain name >」

（ e.g. 「 "%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:esda.schoola.edu 」）

Enter keystore password, e.g. password
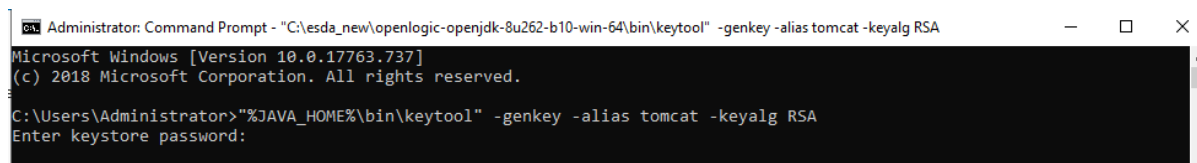
3)

> Enter the password for the steps above:
>
> Enter the domain name, e.g. esda.schoola.edu
>
> Enter the organizational unit, e.g. esda
>
> Enter the organization, e.g. Testing Primary School A
>
> Enter the city, e.g. Hong Kong
>
> Enter the state, e.g. China
>
> Enter the country code (two-letter), e.g. CN

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:esda.schoola.edu
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]:  esda.schoola.edu
What is the name of your organizational unit?
  [Unknown]:  esda
What is the name of your organization?
  [Unknown]:  Testing Primary School A
What is the name of your City or Locality?
  [Unknown]:  Hong Kong
What is the name of your State or Province?
  [Unknown]:  China
What is the two-letter country code for this unit?
  [Unknown]:  CN
```

4)

> Enter 'yes' to confirm the input.

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:esda.schoola.edu
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]:  esda.schoola.edu
What is the name of your organizational unit?
  [Unknown]:  esda
What is the name of your organization?
  [Unknown]:  Testing Primary School A
What is the name of your City or Locality?
  [Unknown]:  Hong Kong
What is the name of your State or Province?
  [Unknown]:  China
What is the two-letter country code for this unit?
  [Unknown]:  CN
Is CN=esda.schoola.edu, OU=esda, O=Testing Primary School A, L=Hong Kong, ST=China, C=CN correct?
  [no]:  yes
```

5)

> Enter the password for the steps above, e.g. password

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:esda.schoola.edu
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]:  esda.schoola.edu
What is the name of your organizational unit?
  [Unknown]:  esda
What is the name of your organization?
  [Unknown]:  Testing Primary School A
What is the name of your City or Locality?
  [Unknown]:  Hong Kong
What is the name of your State or Province?
  [Unknown]:  China
What is the two-letter country code for this unit?
  [Unknown]:  CN
Is CN=esda.schoola.edu, OU=esda, O=Testing Primary School A, L=Hong Kong, ST=China, C=CN correct?
  [no]:  yes

Enter key password for <tomcat>
        (RETURN if same as keystore password):
Re-enter new password:
```

6)

> The certificate is generated in the above path (e.g. C:\Users\Administrator).

```
C:\Users\Administrator>"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA -ext san=dns:esda.schoola.edu
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]:  esda.schoola.edu
What is the name of your organizational unit?
  [Unknown]:  esda
What is the name of your organization?
  [Unknown]:  Testing Primary School A
What is the name of your City or Locality?
  [Unknown]:  Hong Kong
What is the name of your State or Province?
  [Unknown]:  China
What is the two-letter country code for this unit?
  [Unknown]:  CN
Is CN=esda.schoola.edu, OU=esda, O=Testing Primary School A, L=Hong Kong, ST=China, C=CN correct?
  [no]:  yes

Enter key password for <tomcat>
        (RETURN if same as keystore password):
Re-enter new password:

Warning:
The JKS keystore uses a proprietary format. It is recommended to migrate to PKCS12 which is an industry standard format
using "keytool -importkeystore -srckeystore C:\Users\Administrator\.keystore -destkeystore C:\Users\Administrator\.keyst
ore -deststoretype pkcs12".
```

7) Copy ".keystore" from the above path (e.g. C:\Users\Administrator\.keystore) to the installation path "C:\esda_new\apache-tomcat-9.0.xx\conf".
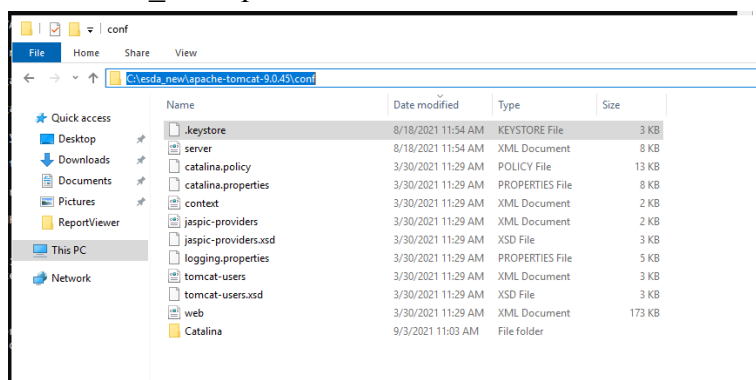
8) Edit Apache Tomcat configuration by using a word processor (e.g. Notepad) (e.g. "C:\esda_new\Apache_Tomcat_9.0\conf\server.xml"). Change the attribute "keystorePass" from "changeit" to the password entered in step 5 (e.g. password).


```
<Connector
protocol="org.apache.coyote.http11.Http11NioProtocol"
port="443" maxThreads="200"
scheme="https" secure="true" SSLEnabled="true"
keystoreFile="conf/.keystore" keystorePass="changeit"
clientAuth="false" sslProtocol="TLS" URIEncoding="UTF-8"/>
```
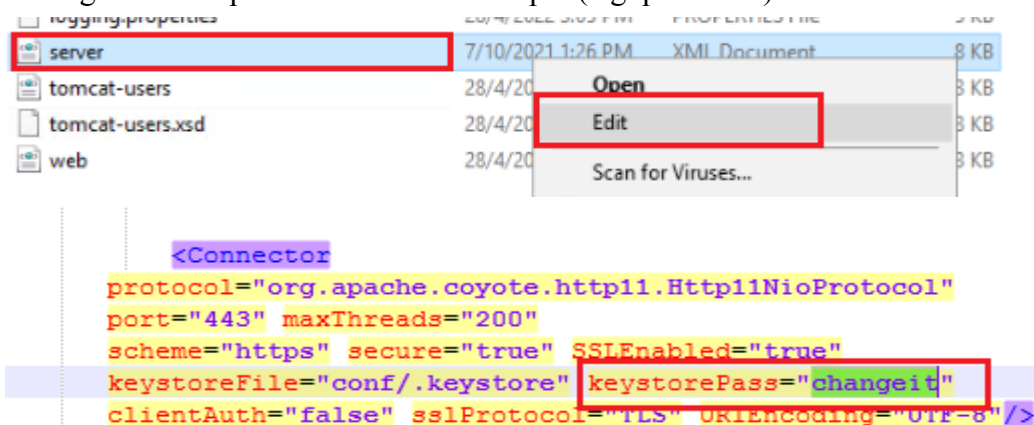
> *Note:*
>
> To re-establish a self-signed e-Certificate, please delete the e-Certificate ".keystore" generated in the path of step 6 and then restart from step 2.

9) Open "Windows" and select "Windows Administrative Tools", then click "Services".
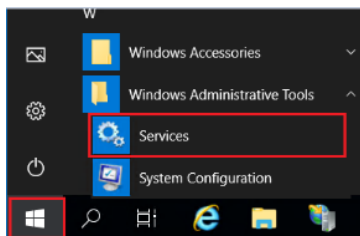
10) Choose "Apache Tomcat 9.0 ESDA", then click "Restart".
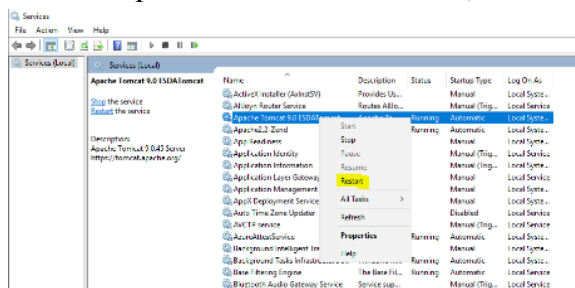
> *Note:*
>
> As the self-signed e-Certificate is not signed by a recognised CA, the website will be marked as "Not Secure" by browser when users enter ESDA website (for example, the following screen will appear when using Google Chrome). Users must click "Proceed to" to access the website or refer to the Appendix 2 of the Installation and Data Migration Guide to set up the self-signed e-Certificate at client side.
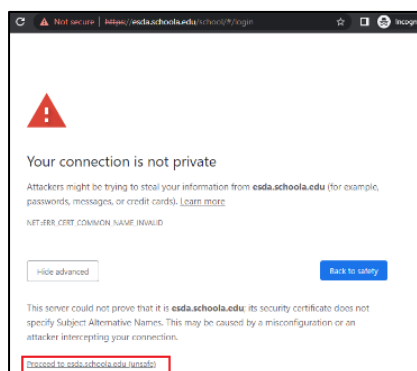
Please consider purchasing a valid e-Certificate from a recognised Certification Authority ("CA") (e.g. Hongkong Post) to improve the security.

1.2.3   Testing after Installation

1) Login as an Administrator to the Windows Server where ESDA v5.0.x is installed.

2) Launch a supported browser (e.g. Google Chrome, Mozilla Firefox, Microsoft Edge, etc.) to "**https://127.0.0.1/school**" or "**https://<IP address or domain name>/school**".

3) Login as a System Administrator to the ESDA v5.0.x system.
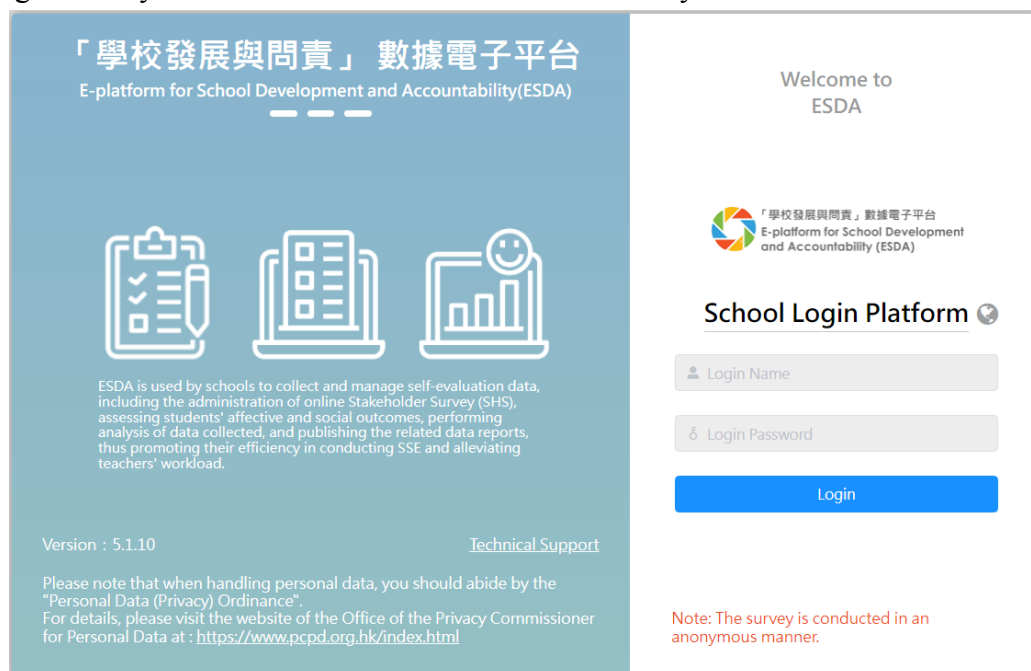
4) The default username of a System Administrator account is **admin** and the password is **P@ssw0rd**. **For security reason, please change the password of the default administrator account at once.** For details, please refer to Section 1.4.3.

1.2.4   Reinstall the ESDA

To reinstall ESDA v5.0.x, please uninstall the ESDA v5.0.x system at the "Programs" of the "Control Panel" before performing the installation steps in Section 1.2.
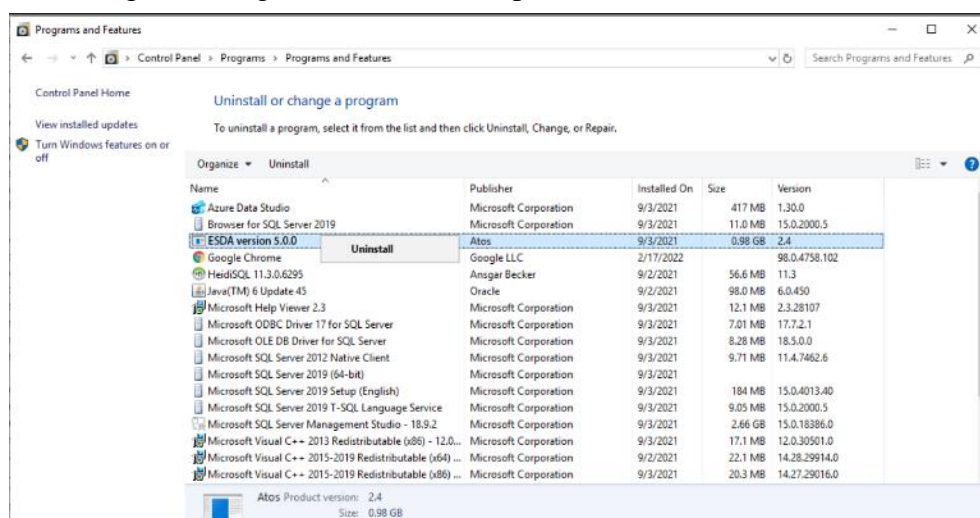
1.3 System Registration

1.3.1   System Registration

System Administrator have to complete the registration for ESDA v5.0.x before using any functions in the system. System Administrator should obtain a registration key from the Indicators Section of the EDB for system registration so that the ESDA system could start be used. If the ESDA v4.6.0 and ESDA v5.0.x systems are installed on the same server, ESDA v5.0.x will be registered automatically. If the ESDA v4.6.0 and ESDA v5.0.x systems are installed on different servers, please send an email to the Indicators Section of EDB (indicators@edb.gov.hk) to request a registration key and follow the steps below to system registration.

1) Mouse over "System Tool", then click "System Setting".
2) Select the school level in "School Level" section.
3) Enter the registration key.
4) Click "Register".

> *Note:*
>   *The registration key of ESDA v4.x.x is not applicable to ESDA v5.0.x.*

School Badge Upload

↻ Reset	☁ Upload

ℹ Upload Image of 250 x 100 Pixels or 250% ratio size [JPG/JPEG/PNG File Format]

System Registration

School Level

Registration Key

1.3.2   Automatic Version Control

Please conduct a system update after the registration of ESDA v5.0.x.

1) Mouse over "System Tools" and then click "System Update".
2) Switch on the "Maintenance Mode".
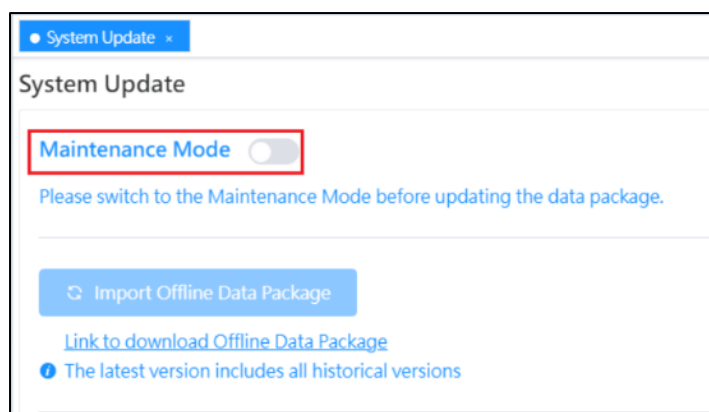
3) Click "Update" in the Online Package List section. "Updating" will be prompted when the system update is started.   It takes about 15-20 minutes.
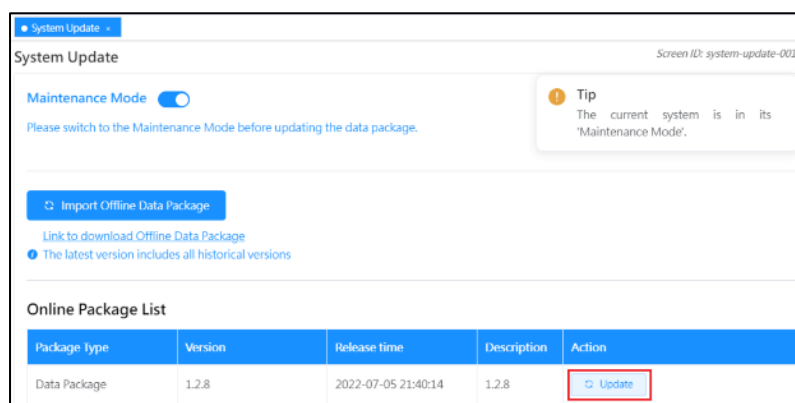
4) Switch off the "Maintenance Mode" after the system update is completed.
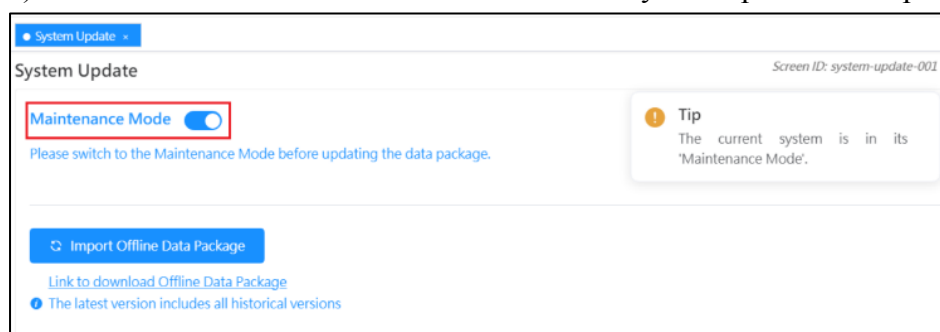
1.4 Login, Logout and Change Password

1.4.1   Login

1) To login ESDA v5.0.x, a user must enter his / her Login Name and Login Password.

2) Click "Login" or "Enter" key on the keyboard for authentication.

3) Read the statement. If agreed, click "Agree" to enter ESDA.

1.4.2   Logout

1) To logout ESDA, a user must click "User Name" at the top-right corner and then click "Log Out".
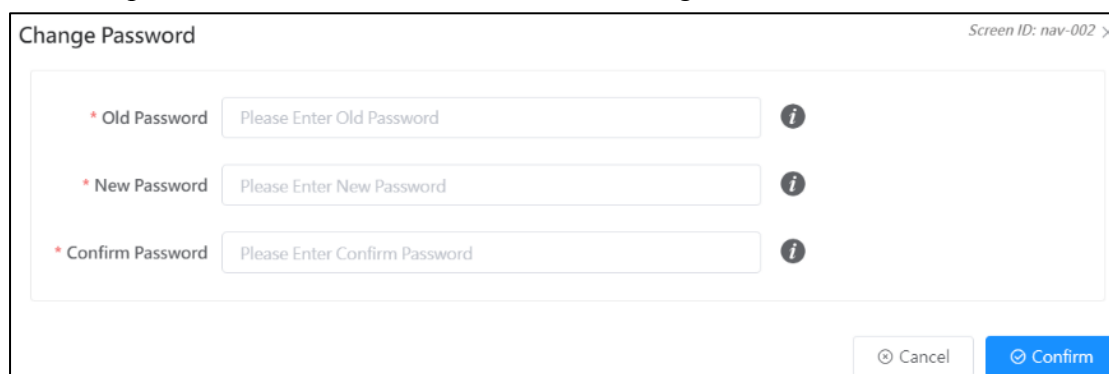
1.4.3 Change Password

1) Click "User Name" at the top-right corner and then click "Change Password".
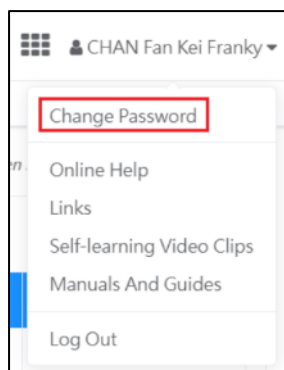
2) Enter "Old Password" and "New Password", and then click "Confirm".

3) The new password will be effective from the next login.

Note:

1) *To meet the latest security requirement, the effective period for a user password is six months. Users will receive a mandatory request for changing the password and cannot re-use the previous eight passwords.*

2) *For schools publishing questionnaires via online mode, System Administrator may use the function "reset user password" to help users to reset the passwords before publishing the questionnaires, if necessary.*

1.5 Navigating ESDA

ESDA v5.1.x system is divided into Left Frame and Main Frame.
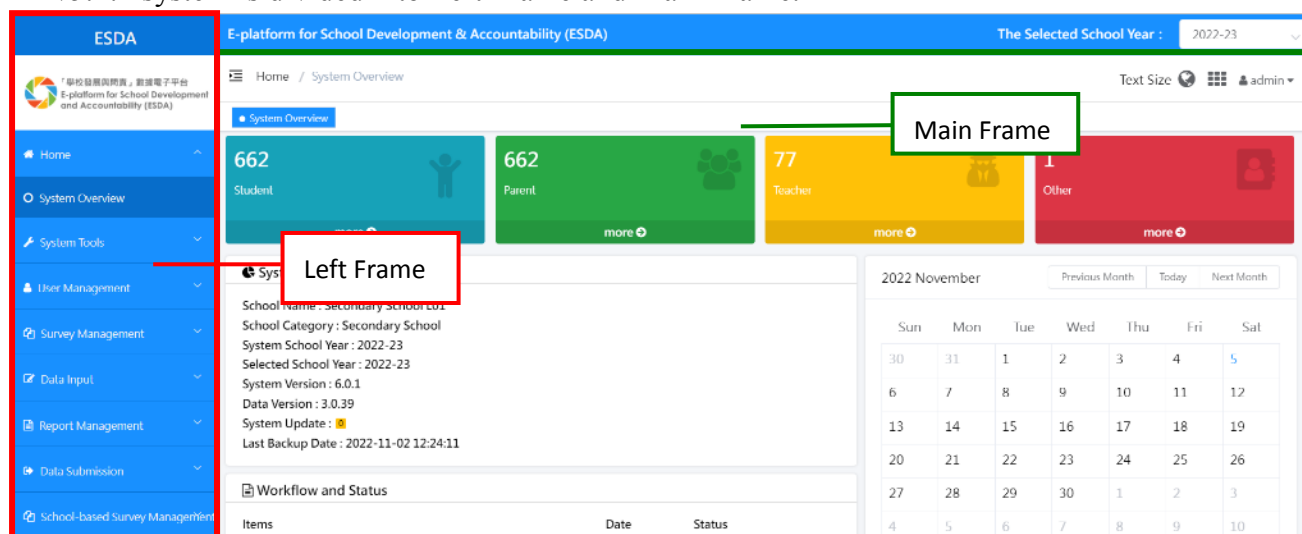
1.5.1   Left Frame

Left frame includes the following information:

1) School Badge; 2) Function module buttons that can be used
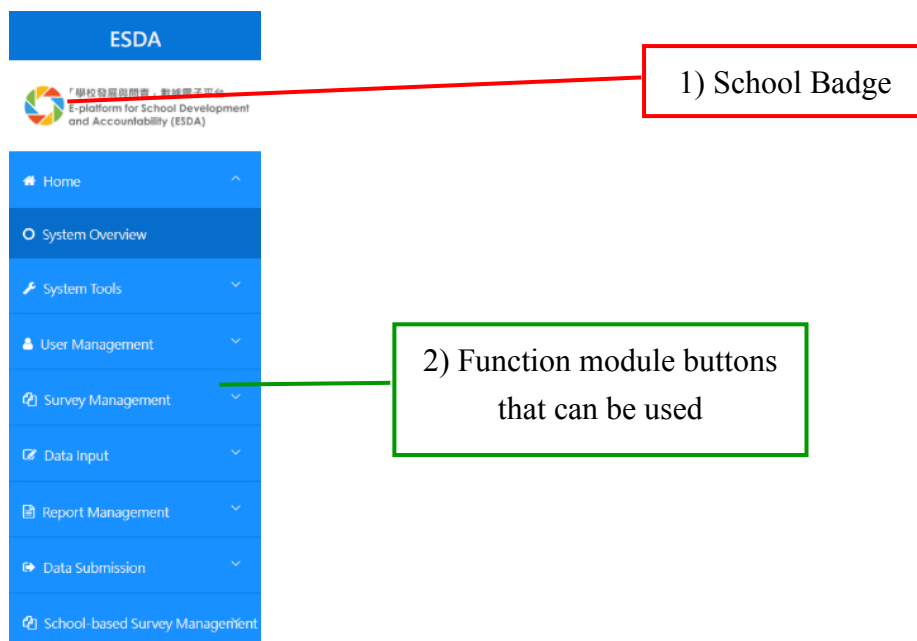
1.5.2 Main Frame

The main frame is for showing and processing data input or exporting data. The main frame includes the following information:

1) Change Password; 2) Online Help; 3) Links; 4) Self-learning Video Clips; 5) Manuals and Guides; 6) Logout; 7) Change Language; 8) Change System Colour
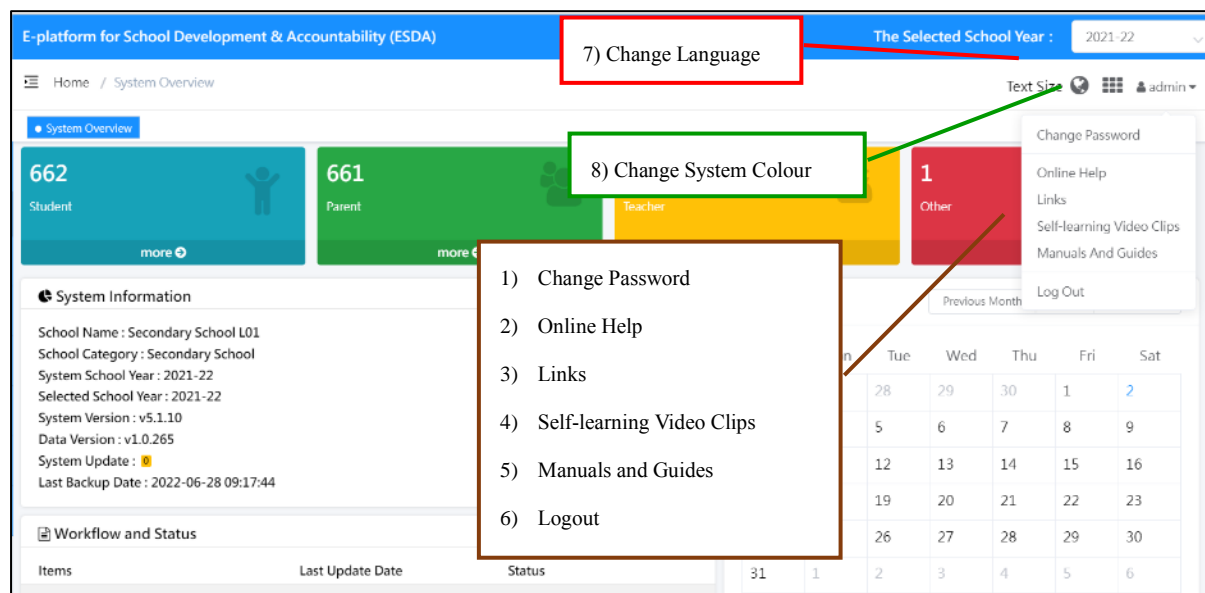
1.5.3 Functional Modules Views

There are seven major function modules under ESDA v5.1.x system.

```
                                    ┌─────────────┐
                                    │ School ESDA │
                                    └─────────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────────┐
│  System  │  │   User   │  │  Survey  │  │   Data   │  │  Report  │  │   Data   │  │ School-based │
│  Tools   │  │Management│  │Management│  │  Input   │  │Management│  │Submission│  │    Survey    │
│          │  │          │  │          │  │          │  │          │  │          │  │  Management  │
└──────────┘  └──────────┘  └──────────┘  └──────────┘  └──────────┘  └──────────┘  └──────────────┘
```

System Tools	User Management	Survey Management	Data Input	Report Management	Data Submission	School-based Survey Management
System Setting	Class Level Management	Publish Survey	Input KPM Data	Stakeholder Survey Report	Preparation for Submission	Manage School-based Survey
School Year Setting	Class Management	Manage Survey	Input Physical Development Data	KPM Item Report		Manage School-based Survey Items
System Backup	Group Management	Fill In Survey		APASO II Report		
System Update	User Management			APASO III Report		
System Log	Import User List			School-based Survey Report		
	Export User List					
	Reset Passwords					

1.5.4 Browse / Select Function

1) Mouse over the required function.

2) Click on the function name to access that function.
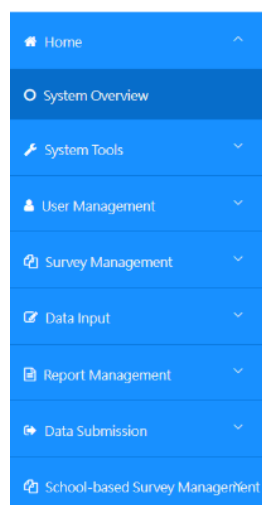
1.5.5 Traceable Direction Path

The traceable direction path is located at the top left-hand corner of Main Frame. It is designed to help users locate current location related to the module / function navigation path. The standard format is as follows:

[Current Phase] / Function List / Function
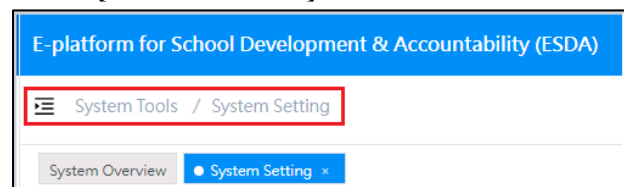
1.5.6 Messaging Function

In general, the system has three kinds of message.
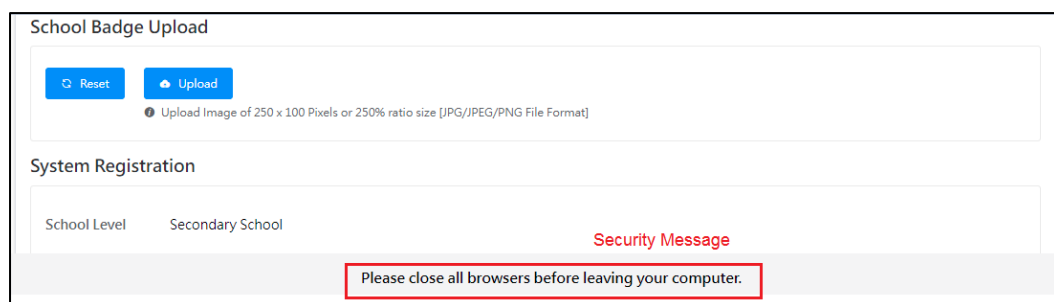
1) "User message" highlights the operation related information.
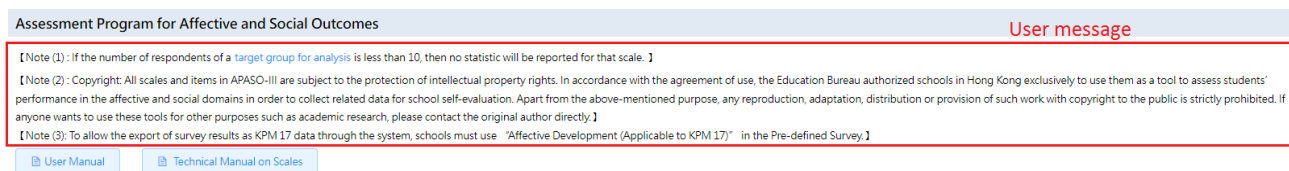
2) "Alert message" prompts when System Administrator login to ESDA for system related information.
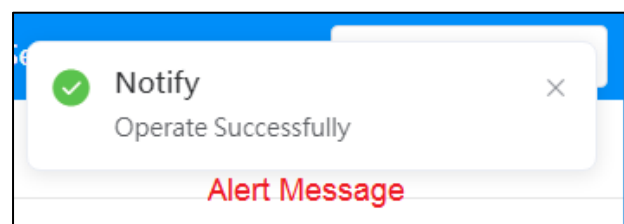
3) "Security message" shows the general security information at the bottom of the page.
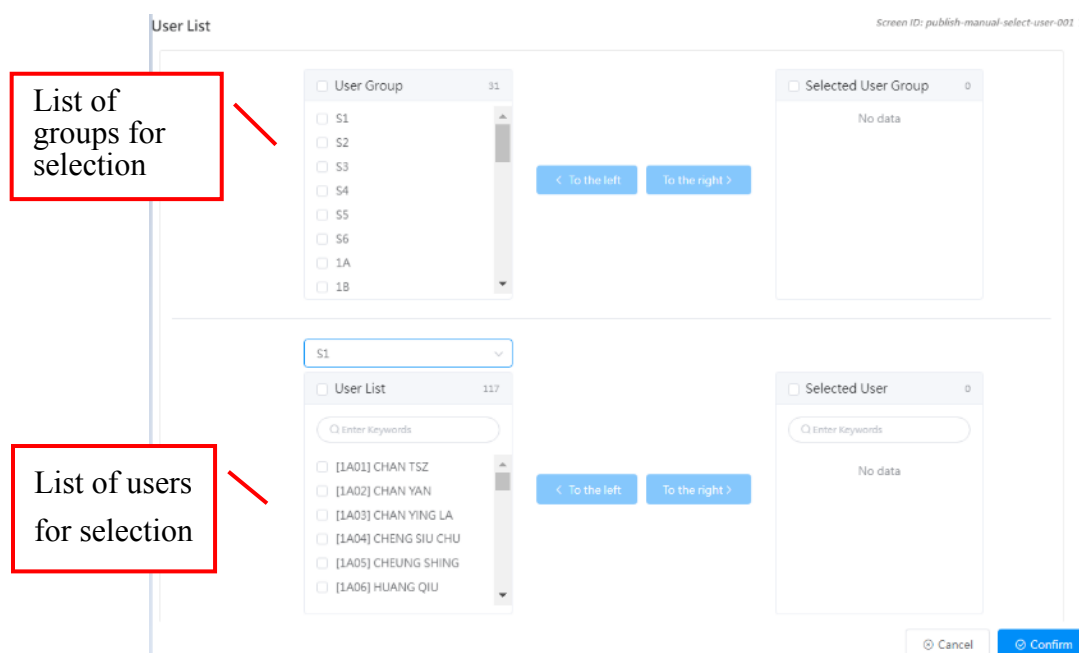
The EDB will disseminate user message, alert message, and security message through ESDA v5.1.x, System Administrator cannot change these messages.

1.6 Some Common Operations

1.6.1   Select groups and users from groups

It is used for selecting a combination of group(s) and some users of a group.

1) To select users from a group, check the group name and click "To the right >".
2) To select all users from a group, check the "Select All" in the first row of "User List" and click "To the right >".
3) To select the user name to be deleted from the "Selected User Group" panel and click "< To the left".
4) Please follow the display on the above screen to select users from a group.   Select the "Use Name" and click "To the right >".
5) To select the user name to be deleted from the "Selected User" panel and click "< To the left".

1.6.2 User Selection

This appears when selection of user operation is needed, such as selecting users from a Student group.

1) To select users in the group, browse the group first, then select the user and then click "To the right >".

2) To delete a selected user, select users in the "Selected Users" list, then click "< To the left".

1.6.3 The "Select All" checkbox

"Select-all" checkbox appears when multi-selection operation is needed.

Once users check the "Select-all-checkbox" on the first row of the panel, all the check boxes below will be selected. However, if one or more of the checkbox(es) for the records below is / are unchecked, the "Select-all-checkbox" will be unchecked automatically.

1.6.4 Delete User

1) To delete a user, select the user from the relevant "User Type" and click "Delete".

2) Click "Confirm" to confirm the deletion.
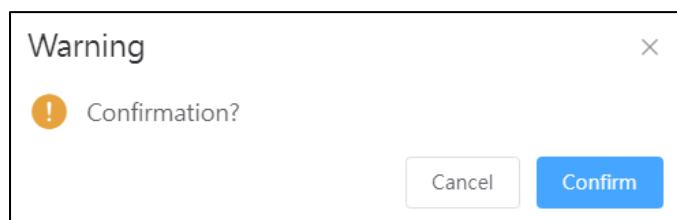
1.7 Suggested Scheduled Tasks

System Administrator should monitor the installed ESDA system regularly. The following table summarises the suggested tasks and schedules for reference:

	Tasks	Suggested Schedules	Reference
1	System Backup before upgrade	Before carrying out ESDA system upgrade	Section 2.4
2	Upgrade ESDA to the latest version	September or October; April or May (or when new upgrade package is available)	Section 2.1.4
3	Start a new school year	September or October	Section 2.3
4	Import Student user list	September or October	Section 3.6
5	Update Teacher user list	September or October	Section 3.6
6	Import data package	Before publishing stakeholder survey	Section 2.1.4
7	Scheduled System Backup	Daily	Section 2.4

Chapter 2 System Tools

2.1 About System Tools

The System Tools provides a set of tools for the System Administrator to manage the system-level setting (including System Setting, School Year Setting, System Backup, System Update, and System Log).

2.1.1 Administrative Procedures

The administrative work for ESDA can be grouped into four categories. This session describes the following administrative work.

Administrative Category	Specific Tasks
General administrative tasks (Session 2.1.2)	Stop and start ESDA, updating the school year setting, data archive and restore archived file.
User group and account administration (Session 3.1.3)	Create and maintain user groups and accounts to ensure that each user can login to ESDA and access relevant resources.
Backup and recovery (Sessions 2.4 & 2.7)	Perform regular backups for the restoration of ESDA data.
System version information (Session 2.5.1)	Monitor the installed ESDA versions and the latest version published by the EDB.

2.1.2 General Administrative Tasks

To maintain the system, some administrative tasks have to be performed regularly or annually. For example, the System Administrator should change the current school year setting before importing new user accounts in a new school year. To stop or start ESDA, the System Administrator needs to stop or start the Tomcat and MSSQL services. When the Tomcat and MSSQL services are stopped, no one can login to the ESDA.

2.1.2.1 Stop and Start ESDA

This section describes how to stop and start ESDA.

A) Stop ESDA

1) Click "Start" menu and click "Control Panel"
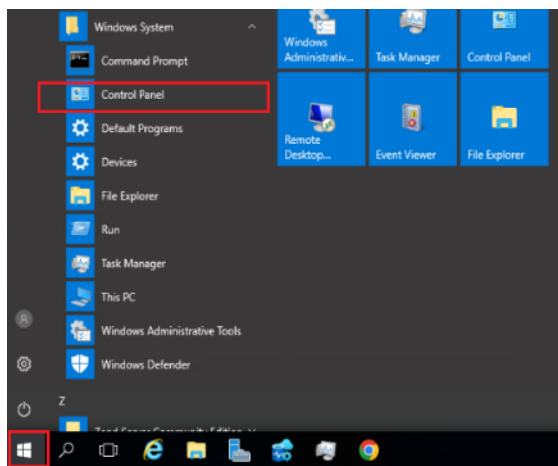
2) Click "Administrative Tools".
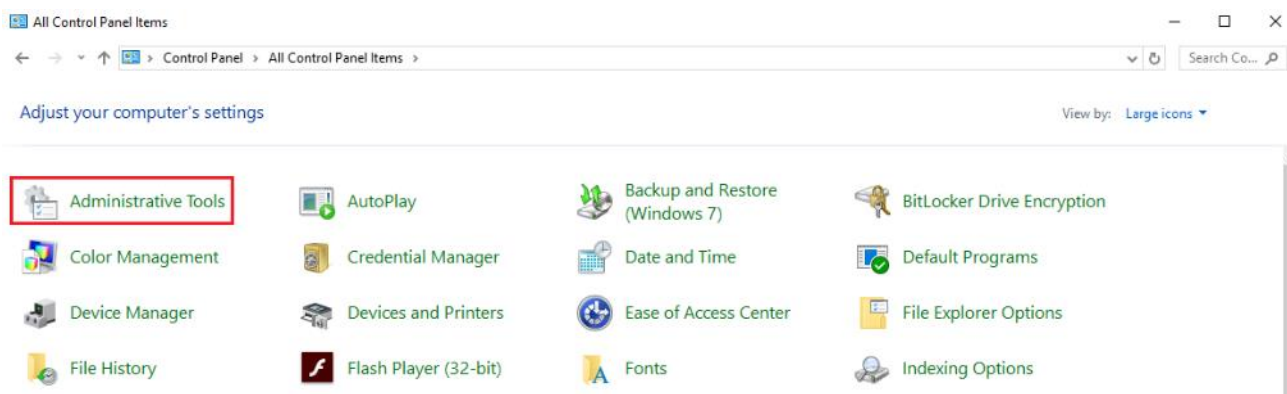
3) Click "Services".
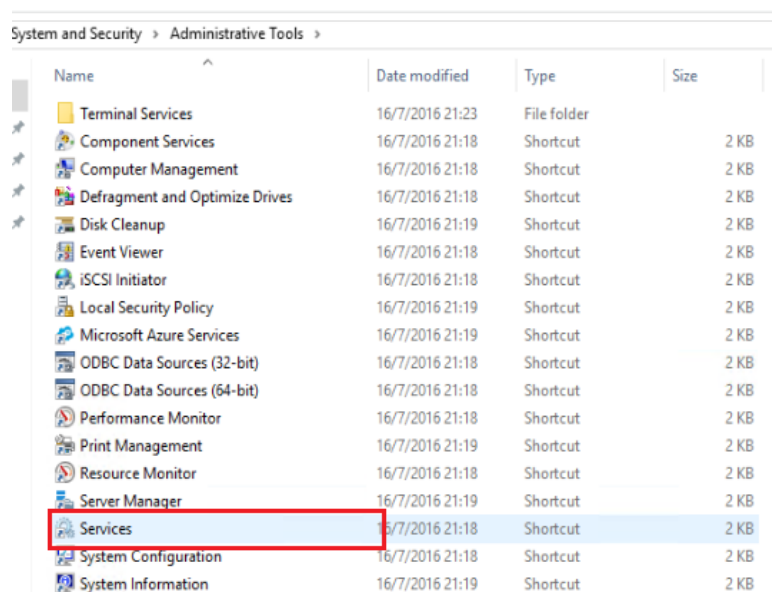
4) Click "Apache Tomcat 9.0 ESDA" services and "Stop" button.
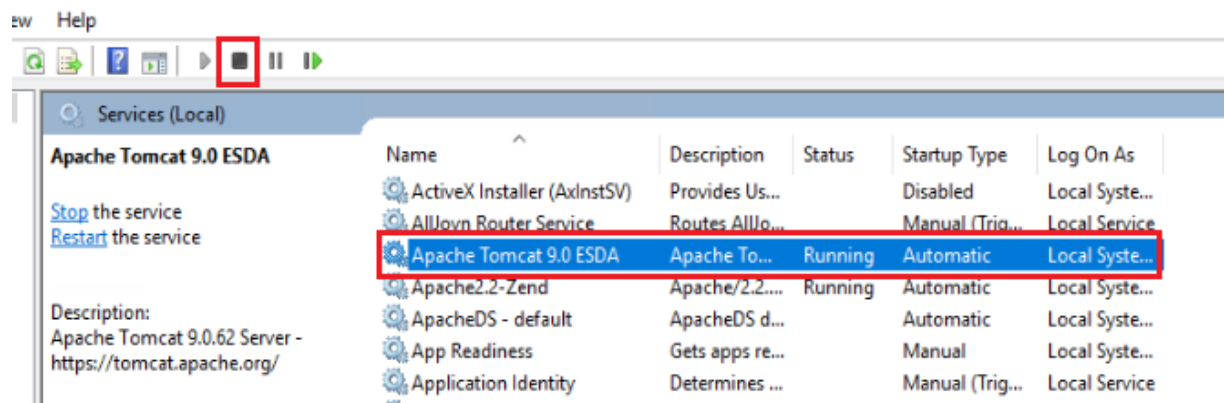
5) Click "SQL Server" services and click "Stop" button.
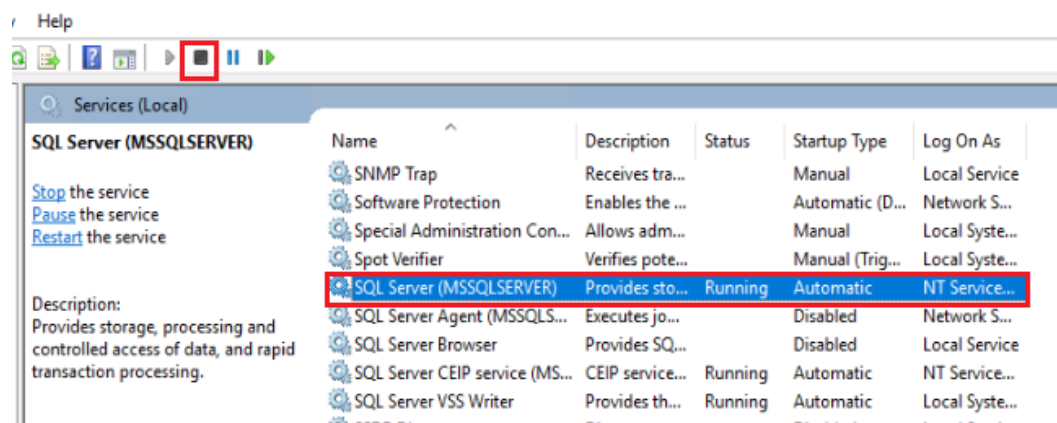
B) Start ESDA

1) Click "Apache Tomcat 9.0 ESDA" services and "Start" button.
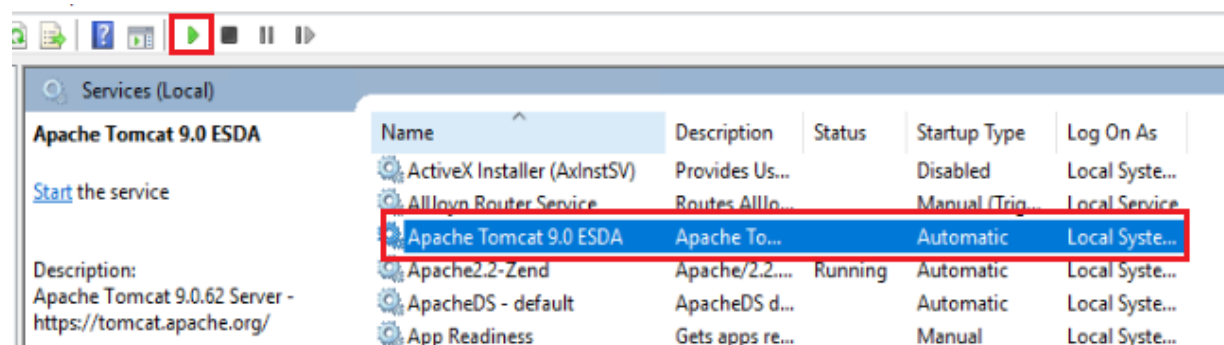
2) Click "SQL Server" services and click "Start" button.
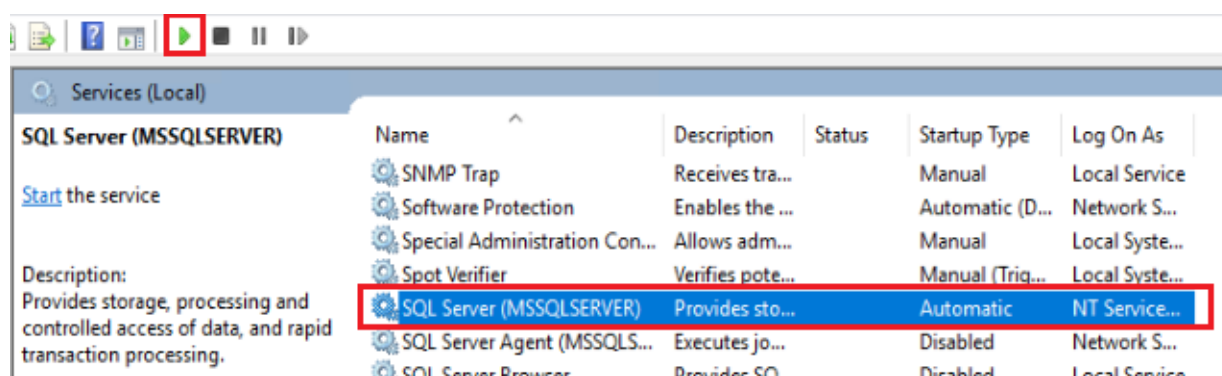
2.1.2.2 Updating School Year

Generally speaking, the System Administrator should update the school year before the commencement of the next school year. The System Administrator should set an appropriate school year as the "Current School Year".

1) Mouse over "System Tools" and then click "School Year Setting".
2) Select an appropriate school year as "Current School Year".
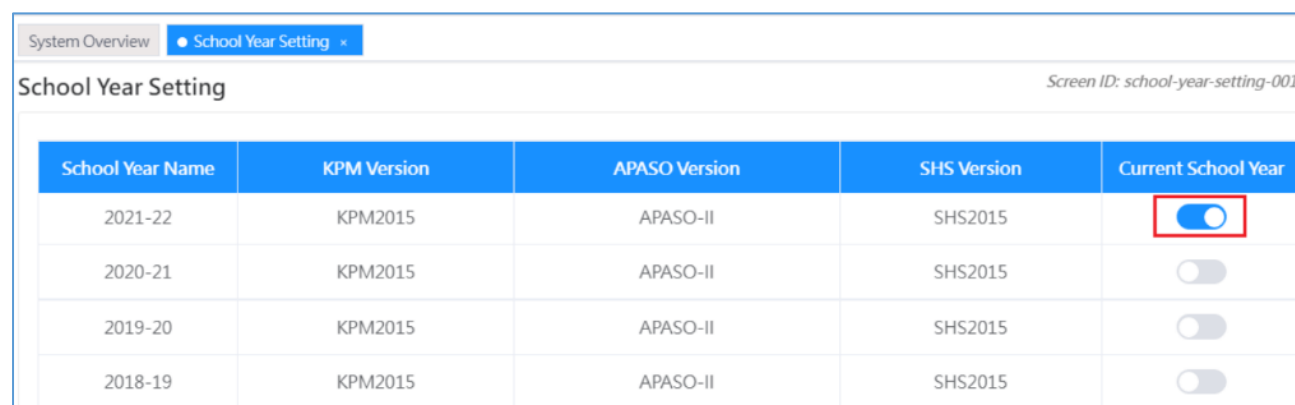
When the system is set for a new school year, all student accounts from the last school year will be automatically changed to inactive. Therefore, the following tasks must be carried out before the start of a new school year:

- Make a full backup of the ESDA system and data;
- Complete all published questionnaires;
- Print all survey reports and keep softcopy (if necessary);
- Prepare for system restore;
- Set new school year;
- Import student record of the new school year;
- Update teacher record of the new school year;
- Import data package of the new school year.

> *Warning:*
>
> *Once the system has been set for the new school year and student records have been imported into the new school year, there is no other way to restore the system to its previous status unless restore the system.*

2.1.3 Windows Event Log Monitoring

The Windows Server 2016 provides a tool called "Event Viewer". With the Event Viewer, System Administrator can monitor events recorded in event logs. According to the event logs, System Administrator can understand the system workload and the corresponding effect on the system's resources. The event logs assist System Administrator to diagnose problems. According to the information from Microsoft (http://www.microsoft.com), the recommended procedures are:

1) Login Windows Server 2016 as an Administrator.

2) Click Start → Control Panel → Administrative Tools → Event Viewer.

3) To open Event Viewer and to refresh the view, on the **Action** menu click **Refresh**.

2.2 System Setting

System Setting for ESDA version v5.0.x is rendered to achieve the best presentation as well as easy management.

1) Mouse over "System Tools" and then click "System Setting".

2) Click the corresponding button to change the settings.

3) For details about each function button, please refer to the following sections:

Section	Setting Buttons	Description
2.2.1	Basic Information	Input and update school name, school session, System Administrator information and teacher in charge information.
2.2.2	School Badge	Upload school badge
2.2.3	Advanced System Setting	Change the display of online help and school year version setting

2.2.1 Basic Information

Schools can enter and update the school name, System Administrator information, teacher in charge information, school number (SCRN) and school session.

1) Mouse over "System Tools" and then click "System Setting".

2) Click "Basic Information" tab. Click "Edit".

3) Enter the required information and then click "Save".

4) School may choose to provide relevant contact information to the EDB.   If click "Yes", the contact information will be saved at both school and EDB server.   If click "No", the contact information will be saved at the school server only.

2.2.2 School Badge Upload

System Administrator can change the school badge at "System Setting".

1) Mouse over "System Tools" and then click "System Setting".

2) Click "Basic Information" tab.

3) Click "Upload" to upload in "School Badge Upload" section.

4) Select the school badge image file and click "Open".

5) System Administrator may click "Reset" to set the badge to the default picture.

2.2.3 Advanced System Setting

The System Administrator may select the information which will be displayed in the "Online Help".

1) Mouse over "System Tools" and then click "System Setting".

2) Click "Advanced System Setting" tab.

3) Select the "Help Display Setting" type.

4) All users can get the related help information from the "Online Help".

2.3 School Year Setting

School year setting is designed to define the current school year of the system. System Administrator should update this information at the beginning of each school year before importing student accounts and collecting information for that particular year.

1) Mouse over "System Tools" and click "School Year Setting".
2) Select an appropriate school year as "Current School Year".
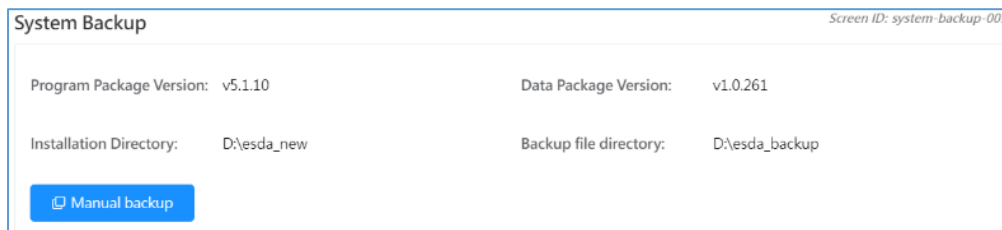
> **Note:**
> User accounts are associated with the school year, change of the current school year will change the users in ESDA. Therefore, the System Administrator should make sure that all surveys have been completed and announcement has been sent to all system users before changing the current school year.

2.4 System Backup

System Administrator should periodically back up the ESDA directory, e.g. "D:\esda_backup" to backup media (e.g. an external hard disk). System Administrator may check the installed directory and launch the backup procedure as follows:

2.4.1 System Backup Procedures
1) Login ESDA with a System Administrator account.
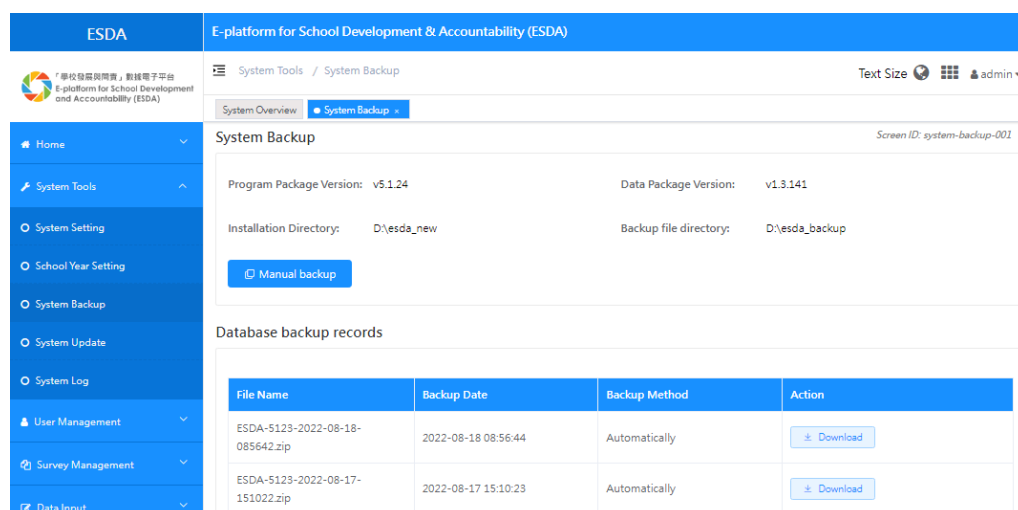
2) Mouse over "System Tools", and then click "System Backup".

3) Click "Manual backup" and the system will generate a backup file with the format "xxxx.zip" to the backup file directory.

Note:
Please copy the backup file to the backup folder or a backup device.

2.5 System Update

ESDA update package will be displayed on the "System Update" page. For ESDA connecting to the Internet, the system can be upgraded by using the built-in function.

2.5.1 System Version Information

System Administrator can check the system version information from "System Setting", such as the system version of the current ESDA installed and the latest ESDA version available for download.

1) Mouse over "System Tools" and then click "System Setting".

2) Click the "System Version Information" tab.
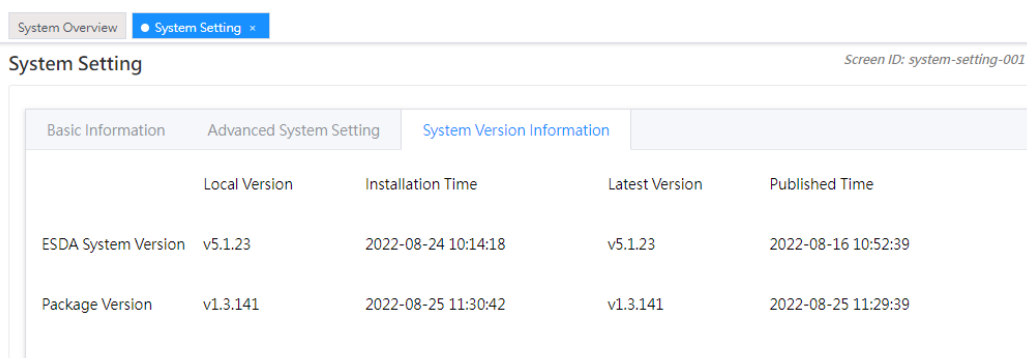
2.5.2 System Update

The ESDA v5.0.x comes with an automatic system update routine. System Administrator may select "System Tools" > "System Update". Components are as follows:

Item	Compinent	Details
1	System Update History	The system update history is displayed in order of updates to facilitate the System Administrator to update the system. Data Package Update History | Package Type	Version	Update Type	Update Date	Description
Data Package	1.0.245	Online	2022-06-15 17:41:30	
Data Package	1.0.244	Online	2022-06-15 17:41:24		
2	Online Update	The System Administrator should complete the system update according to the "Download" and "Install" update sequences. Online Package List | Package Type	Version	Release time	Description	Action
Program Package	5.1.6	2022-06-12 15:33:42		⬇ Download
Data Package	1.0.250	2022-06-16 12:32:09		⟳ Update	
3	Offline Import	If the system cannot get the update package file, the System Administrator can manually upload the system update package and click "Install". Upload File — Screen ID: system-update-002 ✕ ⬆ Choose File Only DAT Files Can Be Uploaded ⊘ Cancel ⊘ Import Data Package
4	Status	Successful package update will be shown in Data Package Update History. Data Package Update History | Package Type	Version	Update Type	Update Date	Description
Data Package	1.0.260	Online	2022-06-24 10:37:38	
Data Package	1.0.259	Online	2022-06-22 17:16:28	
Data Package	1.0.258	Online	2022-06-22 17:02:15		

2.5.3 Auto-scan of Update Package

When the System Administrator login the system, the system will check the latest version of ESDA at the EDB server. If a new package is available for download and update, the system will automatically display the system update page with programs to be installed.

2.5.4 Update Online Package

System Administrator can install the update package:

1) Mouse over "System Tools" and then click "System Update".

2) Switch on the "Maintenance Mode".

3) Click "Update" in the Online Package List section.

4) Switch off the "Maintenance Mode" after the system update is completed.

2.5.5 Offline Update Package

If system cannot download the update package from network:

1) Please contact the Indicators Section of EDB to obtain the related package file.

2) Switch on the "Maintenance Mode".

3) Click "Import Offline Data Package".

4) Browse and select the appropriate package file and click "Import Data Package".

5) Switch off the "Maintenance Mode" after the system update is completed.

> *Note:*
>
>   *System Administrator can import either "online" or "offline" data package.*

2.6 System Log

This module allows you to view operation records of different modules. The system provides a search function on the date range, function and operation user, which helps the System Administrator review the system records.
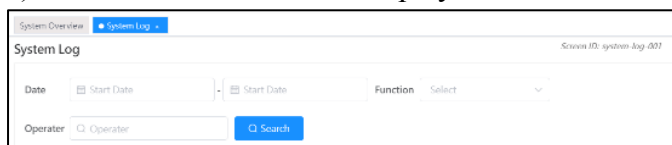
In ESDA, there are different types of system log to help System Administrator to review daily operations. They are Login, School Year Setting, System Backup, System Update, etc.

To view the log records, mouse over to "System Tools", and then click "System Log", select the range of "date" and "function" and then click "Search". The system shows the related records.

1) Mouse over "System Tools" and then click "System Log".
2) Enter the range of Date, Function or Operation User and then click "Search".
3) The search result will be displayed.
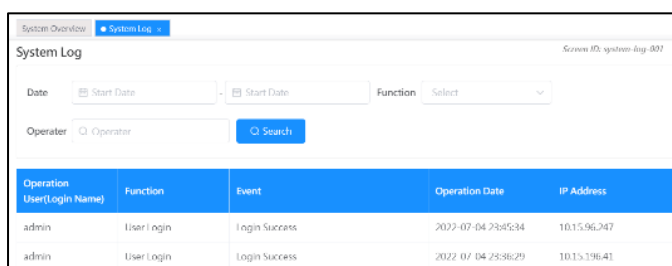
2.7 System Restore

2.7.1 System Restore Procedures

1) Unzip the backup file.
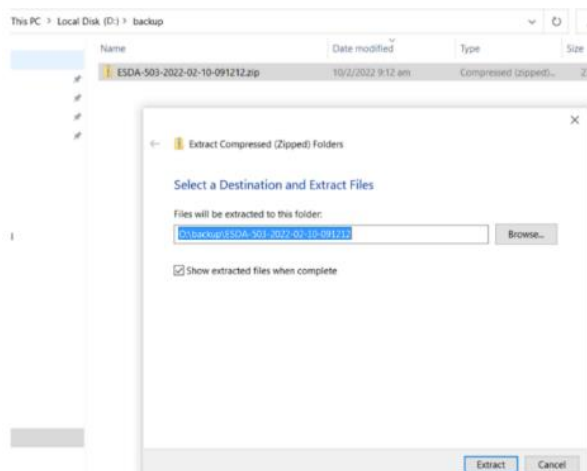
2) Run Restore Tool.exe as an Administrator.
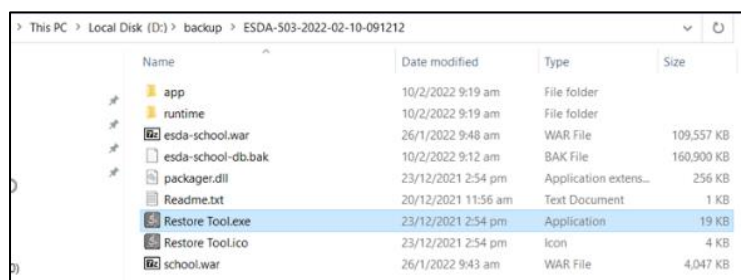
3) Data restore process will be executed automatically.
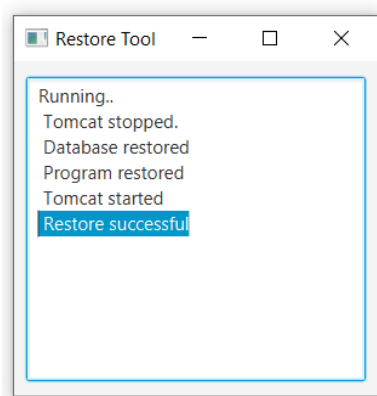
4) When completed, System Administrator can continue with the daily system management task 2.1.1. Depending on the time the data is restored, an update for the school year or system update may be required.

Note:

    If the process for data restoration is not completed, please send the log file (\app\log.txt) to the EDB. The log files can be found in the unzipped backup file.
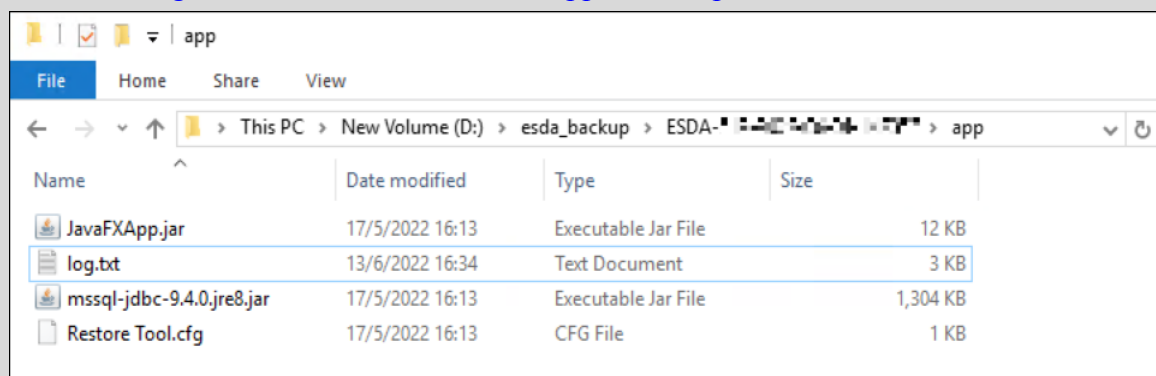
2.7.2 Restore Procedures for a crashed system

If ESDA crashes, System Administrator should uninstall and install ESDA again. It is suggested that System Administrator restores the latest backup data. To uninstall ESDA, please refer to the Appendix 5. To install a new ESDA, please refer to the Chapter 1.

It shall be noted that ESDA program and data must be in the same patch level before it is functioning properly. If System Administrator is planning to reinstall the system, System Administrator must apply the system to the patch level of the backup database before restoring the database. To find out the patch level, System Administrator shall refer to the system patching log as stated in Section 2.5; or from the backup filename as stated in Section 2.4.

Chapter 3 User Management

3.1 About User Management

There are seven main functions in user management: Class Level Management, Class Management, Group Management, User Management, Import User List, Export User List and Reset Passwords.

After installing ESDA, the System Administrator needs to use user management to establish user accounts, groups, and specify privileges for each group. The user account is used for login authentication and authorisation of functional modules of the system. When a user account is added to the relevant group, the user will have the specified privilege for the groups.

A search function is provided to search user, group, class level, class, gender, name and status to facilitate the management of users and groups. Except for using a function "Delete" to remove a user account permanently, the Super System Administrator can also disable individual user account when necessary (including the "Super System Administrator") or using a function "Restore" to recover the user account. If the user account is accidentally deleted, the System Administrator can use the "Restore" function to restore the user account.

3.1.1 Before You Begin
User Management manages user accounts and sets user privileges in the system. Therefore, this functional module should only be accessed by System Administrators. To enter User Management, you must have the privilege of User Management. To reset a student's password, your account must have the "Reset User Password" privilege. In addition, all teacher accounts should have the "Reset User Password" privilege so that teachers can reset students' passwords when needed.

3.1.2 Understand School Year
The school year is an important part of ESDA. Since each class group belongs to one school year (e.g. 2021/22), the data to be displayed by the selection control of the school year is the one to which school year (e.g. student/parent accounts, survey results). To avoid the school year is selected mistakenly, this function should be performed by System Administrator. For more information on the School Year Setting, please refer to Section 2.3.

3.1.3 Groups and User Accounts
The System Administrator can create different groups (except the System Group). A valid user account should have a unique "login ID" and "User Identity". The System Administrator can create user accounts manually or import the Excel file exported from WebSAMS. User account should be assigned

to at least one group. User of a particular group will inherit the group's privilege(s).

3.1.3.1 Introduction to Groups and User Accounts
This section illustrates details of the pre-defined groups and user accounts.

A) Groups

The two types of groups are "System Group" and "Self-defined Group". These two groups facilitate the System Administrator to group user accounts with the same nature. Each group includes its respective Chinese and English names, as well as a list of users and the privileges they have.

ESDA v5.0.x has a default System Group, which includes six group types: Super Admin Group, Administrator Group, Student Group, Parent Group, Teacher Group and Specialist Group (for special schools). Since these are the default System Group, they cannot be added and deleted. In addition to System Group, System Administrator can also create self-defined group types.

Group Type	Group Properties	Example
System Group	• ESDA pre-defined groups cannot be added, edited or deleted. • For accounts of students, parents and teachers are imported from Excel file, the system will automatically assign the user accounts to the corresponding system groups (e.g. students will be assigned to the "Student Group").	• Super Admin Group • Admin Group • Student Group • Parent Group • Teacher Group
Self-defined Group	• Setup by System Administrator. • Assign specific privileges to the specific group.	• View Report Group • Survey Group

With "Self-Defined Group", users with the same background can be grouped together to facilitate survey analysis for group comparison. Each group can define its own privileges and set privileges for each function.

B) User Accounts

In ESDA, there are three types of user accounts. They are students and/or parents, teachers and administrators. To create student and/or parent user accounts, System Administrator can import the student users from WebSAMS or create them in the ESDA system. To create teacher user accounts, System Administrator can import teacher user accounts from a spreadsheet or create them in ESDA. To create administrator user accounts, System Administrator can create them in ESDA.

3.1.3.2 Group Planning Strategy

The account policy determines the arrangement of the user accounts. It includes the followings:
- Password properties.
- Set the changing password authorisation to each user type.

To use an account policy to provide security for user accounts, System Administrator may consider the followings:
- Comply with the basic password regulations:
  Password must contain at least 8 characters and require a mix of upper case of English Letters, lower case of English Letters, numbers, and symbols; or it must contain at least 10 characters, with a mix of upper case of English Letters, lower case of English Letters, and numbers or symbols.
- Unique password for all user accounts.

Before starting a new school year, System Administrator must update student user accounts (Please refer to section 3.2.4). System Administrator may need to update student user accounts within a school year (e.g. a student is transferred from class 1A to class 1B).

If school has set up school-based Intranet system, System Administrator can replace the "LOGINID" and "PASSWORD" columns in the Excel file with the login name and password of the school-based Intranet.

3.1.3.3 Add, Edit and Delete Groups and User Accounts

System Administrator can add, edit and delete Groups and User Accounts. For details, please refer to Section 3.5.

3.1.3.4 Import User Accounts from WebSAMS

To facilitate System Administrator to create student accounts, a set of procedures is prepared for System Administrator to extract the student accounts from WebSAMS. For details, please refer to Section 3.6.

3.1.3.5 Privilege Setting

To set privileges for groups, System Administrator can click "Edit" next to the target group, then check the privileges to be assigned to the target user group and click "Confirm".

3.1.3.6 Best Practice

To minimise tedious jobs of ESDA group(s) and user accounts creation, System Administrator is recommended to use the "Import User List" to create student accounts, parent accounts and all school-based-group(s) (e.g. class and class level groups). For details, please refer to Section 3.6.

3.2 Class Level Management

Mouse over "User Management" and then click "Class Level Management" to enter the Class Level Management Module.

3.2.1 Create Class Level

1) Mouse over "User Management" and then click "Class Level Management".

2) Check whether the required class level exists in the system.

3) Click "Add" to add a new class level.

4) Click "Confirm" to save the setting.

3.3 Class Management

Mouse over "User Management" and then click "Class Management" to enter the Class Management Module.

3.3.1 Create Class Groups

1) Mouse over "User Management" and then click "Class Management".

2) Check whether the required class exists in the system.

3) Click "Add" to add a new class.

4) The respective Group templates will be displayed.

- Input the group name in both "English Name" and "Chinese Name" fields.
- In the "Class Code" field, input the unique code for this class. (Remarks: This Class Code is

to facilitate the user import by batch. It is recommended to use the same pattern as the Class Code used in WebSAMS.)

5) Click "Confirm" to save the setting.

> ***Note:***
>   All class groups will be automatically created when importing student accounts.

3.4 Group Management

Mouse over "User Management" and then click "Group Management" to enter the Group Management Module.

3.4.1 Create Self-defined Groups

1) Mouse over "User Management" and then click "Group Management".

2) Group Management page will be displayed.

3) Click "Add" to add a new group.

4) Group template will be displayed.

- In the group template, input the group name in both the "English Name" and "Chinese Name" fields.

- Select group privilege.

- Click "+ Select User" to select users and click "To the right >" to move users to the "Selected User".

5) Click "Confirm" to save the setting.

3.4.2 Modify Groups

1) Mouse over "User Management" and then click "Group Management".

2) Click "Edit" of the group to be modified.

3) Click "Save" to save the modification.

3.4.3 Delete Groups

1) Mouse over "User Management" and then click "Group Management".

2) Select the group type from the group list and then click "Delete".

3) Click "Confirm" to confirm the deletion.

3.4.4 Set Privilege(s) for Group(s)

1) Mouse over "User Management" and then click "Group Management".

2) Select "Group Type" and click "Edit".

3) Click "Group Privilege" of the group type.

4) Check the group privilege.

5) Click "Confirm" to save the privilege setting.

3.5 User Management

Mouse over "User Management" and then click "User Management" to enter the User Management.

3.5.1 Create an Individual Student Accounts

1) Mouse over "User Management" and then click "User Management".

2) Click "Add" to create a student account.

3) Select "Student" from the "User Type".

4) In "Add User" page:
- Input all the fields of student information.
- In the "Group", select the group that the student belongs to, i.e. "Student Group".
- Click "Confirm" to save the student account.

3.5.2 Create an Individual Parent Accounts

1) Mouse over "User Management" and then click "User Management".

2) Click "Add" to create a parent account.

3) Select "Parent" from the "User Type".

4) In "Add User" page:

- Input all the fields of parent information.
- Input "Student Name (Parent)" in "Name (English)" and "Name (Chinese)" (e.g. Chan Tai Man (Parent)).
- Click "Confirm" to save the parent account setting.
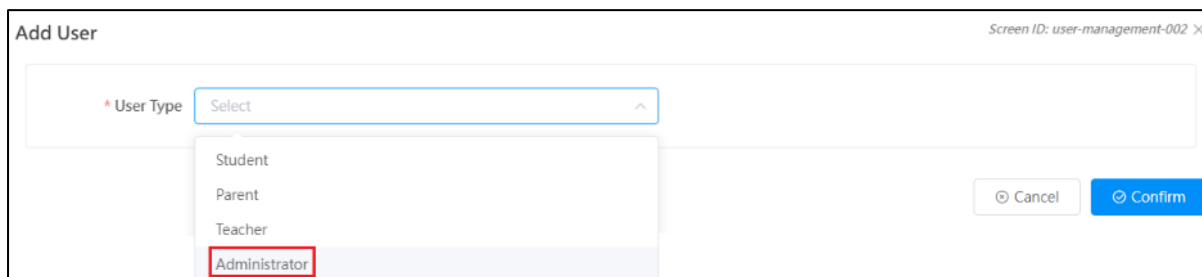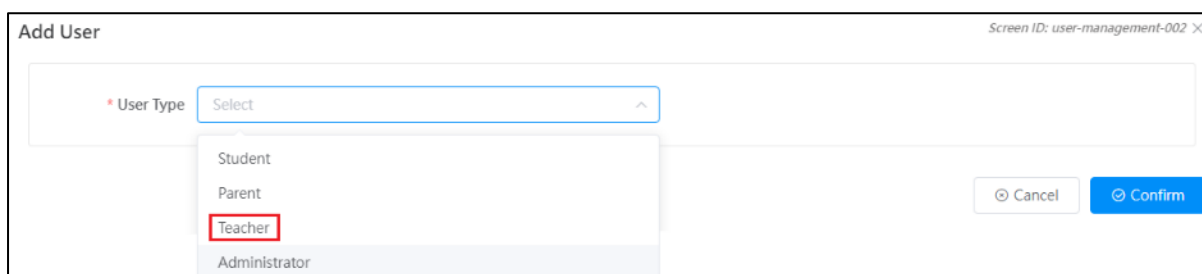
3.5.3   Create an Administrator / Teacher Account

1) Mouse over "User Management" and then click "User Management".

2) Click "Add".

3) Select "Administrator" or "Teacher" from the "User Type".
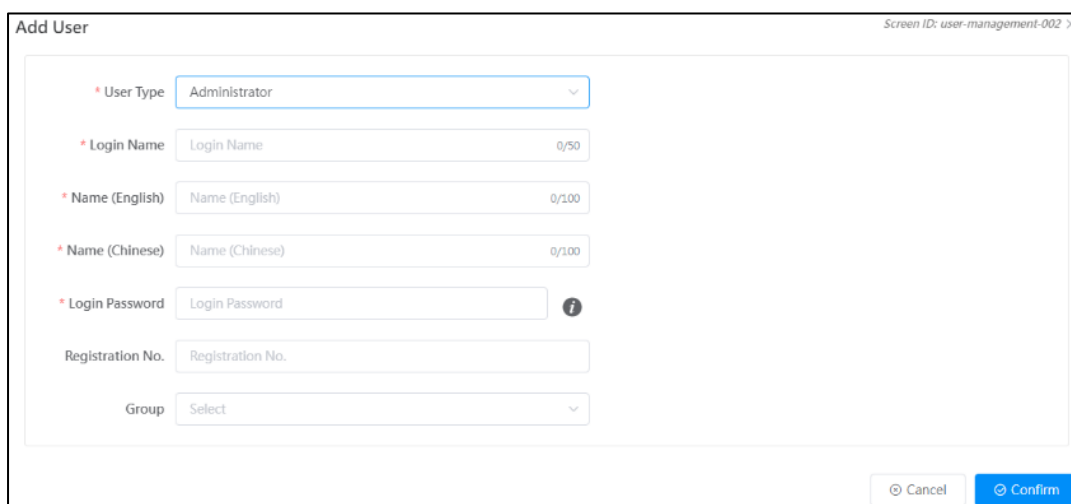
4) In "Add User" page:

- Input all the fields of user information.
- In the "Group", select the group that the user belongs to and click "Confirm". To assign special privilege to a group of users, you should create a self-defined group (example: View Reports).

3.5.4 Modify User Accounts

1) Mouse over "User Management" and then click "User Management".

2) Enter selection criteria, such as "User Type", "Group" or "Status" and click "Search".

3) Click "Edit" to edit an individual user record.

4) In "Edit User" page:

- Input all the fields of student information.
- Click "Confirm" to save the settings.

> *Note:*
>   All modifications will instantly be reflected in the system after you have saved the user record.

3.5.5 Delete User Accounts

1) Mouse over "User Management" and then click "User Management".

2) Enter selection criteria, such as "User Type", "Group", "User Name", or "Status" and click "Search".

3) Check the checkbox of respective user records, and then click "Delete".

4) All deleted users will be moved to the list of deleted users.

3.5.6   Restore Deleted User Accounts

1) Mouse over "User Management" and then click "User Management".

2) Select "Delete" in "Status" and click "Search".

3) Check the checkbox of respective user records, and then click "Active" and "Confirm" to restore the user accounts.

> **Note:**
>
> The users' personal information, i.e. password and group(s), will be restored to the original values before deletion.

3.5.7 Disable User Account

1) Mouse over "User Management" and then click "User Management".

2) Enter selection criteria, such as "User Type", "Group", "User Name", or "Status" and click "Search".

3) Check the checkbox of respective user records, and then click "Disable".

4) All deleted users will be moved to the list of disabled users.

3.5.8 Restore Disabled User Account

1) Mouse over "User Management" and then click "User Management".

2) Select "Disable" in "Status" and click "Search".

3) Check the checkbox of respective user records, and then click "Restore" and "Confirm" to restore the user accounts.

> *Note:*
>
> The users' personal information, i.e. password and group(s), will be restored to the original values before deletion.

3.5.9 Restore Locked Accounts

If a user fails to login five times or more, the user account will be locked by the system and the user cannot login to the system again. The System Administrator needs to restore the user account before the accounts can be reused.

1) Mouse over "User Management" and then click "User Management".

2) Select "Lock" in "Status" and click "Search".

3) Check the checkbox of respective user records, and then click "Active" and "Confirm" to restore the user accounts.

> *Note:*
>
> The users' personal information, i.e. password and group(s), will be restored to the original values before locking.

3.6 Import User List

To generate user accounts quickly, the "Import User List" function provides the necessary functionality for quick account generation. Schools may download the Excel templates for the interface of different types of users and upload the file to the system to create user accounts.

1) Mouse over "User Management" and then click "Import User List".

2) "Import User List" page will be shown.

3.6.1 Download Excel Template

1) Mouse over "User Management" and then click "Import User List".

2) The interface of "Import User List" will be displayed.

3) To download an Excel file template for importing teacher accounts, click "File Template" for "Teacher" in "Templates and SQL Statement for Download".

4) To download an Excel file template for importing student and parent accounts, click "File Template" for "Student and Parent" in "Templates and SQL Statement for Download".

5) To download an Excel file template for importing other accounts, click "File Template" for "Others" in "Templates and SQL Statement for Download".

6) Click "Save" to save the file on your computer.

> **Note:**
> If you want to refer to the help file for the Excel template, you can click "Template documentation".

3.6.2 Create Student Accounts from WebSAMS

1) Login to WebSAMS, select "Data Management" > "Query Maintenance".

2) Click "Add Advance".

3) In the interface of "Add Advance Query",

- Input the "Query Name" and "Query Description".

- In the "SQL Statement" field, input the script as below. (Remarks: Please change the school year 20xx to current school year, e.g. if current school year is 2023/24, please change to 2023).

SELECT CAST(a.SCHYEAR as varchar) +'-'+ SUBSTRING(CAST(a.SCHYEAR+1 as varchar),3,2) AS 'School Year', '#'|| a.REGNO AS 'Registration No.', a.CLASSLVL AS 'Class Level Code', a.CLASSCODE AS 'Class Code' , a.CLASSNO AS 'Class No.' , a.ENNAME AS 'Name (English)' , a.CHNAME AS 'Name (Chinese)' , a.SEX AS 'Sex' , 's'|| a.REGNO AS 'Login Name', 's'|| 'Pas@' + a.REGNO AS 'Password' , DATEFORMAT(a.DOB, 'YYYY/MM/DD') AS 'DOB' , a.HEIGHT AS 'Height/cm' , a.WEIGHT AS 'Weight/kg' , 'A' AS 'User Type' FROM VW_STU_LATESTSTUDENT a WHERE a.schyear =20xx ORDER BY a.classlvl , a.classcode, a.classno

- Click "Save".

> **Note:**
> You may copy this script from the "Documentation" of the "Import User List".
> Make sure you change the last parameter, "a.schyear" accordingly.

4) Click "Go To Execute" to execute the data selection.

5) At the "Output Format", select "Excel" and then click "Export Result".

6) Input password and "OK" to save the output file.

3.6.3 Batch Student and Parent Account Creation from WebSAMS

Prerequisite:
- You should have the Excel file either exported from WebSAMS or generated from a spreadsheet.
- The imported file should include ALL student accounts (e.g. both NEW and EXISTING students). Any missing account in the imported Excel user file will be automatically moved to the list of deleted users in ESDA.

1) Mouse over "User Management" and then click "Import User List".
2) The interface of "Import User List" will be displayed.
   - Check whether the displayed "Current School Year" matches with the student data you will import.   (Note: If the current school year does not match with the data, please adjust the current school year in "System Tools" > "School Year Setting".)
   - To import student and parent accounts together, select "Student and Parent" and then click "Select the File" to select the file.
   - Click "Import" to create / update / delete user accounts.
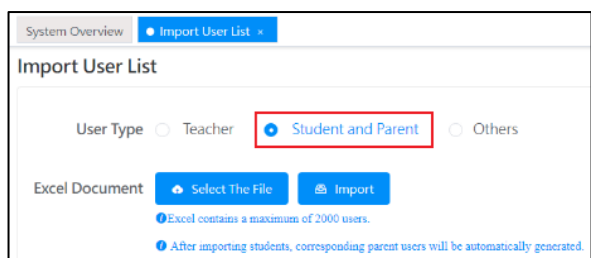
3) The number of student and parent accounts that have been created/updated will be displayed in the following import summary.
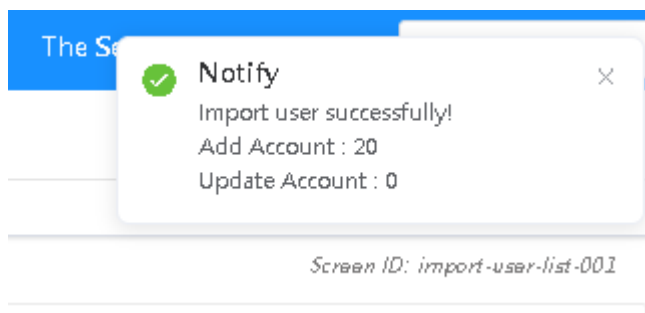
3.6.4 Batch Teacher Account Creation from Excel file

> *Prerequisite:*
> Prepare an Excel file for importing teacher accounts according to the sample below. The file shall contain only those changed records. System Administrator is suggested to delete those retired accounts in "User Management".

Registration No.	Name (English)	Name (Chinese)	Login Name	Password	User Type
t123	Teacher 1	教師 一	t123	P@ssw0rd	C
t124	Teacher 2	教師 二	t124	P@ssw0rd	C
t125	Teacher 3	教師 三	t125	P@ssw0rd	C
t126	Teacher 4	教師 四	t126	P@ssw0rd	C
t127	Teacher 5	教師 五	t123	P@ssw0rd	C

1) Mouse over "User Management" and then click "Import User List".
2) To import teacher accounts in batch, select "Teacher" in the "User Type" and then click "Select The File".
3) Click "Import" to create or update teacher accounts.

3.6.5 Create Random Accounts
1) Mouse over "User Management" and then click "Import User List".
2) Input all information including "User Type", "Prefix", "Class", "Gender" and "Number of Accounts" and click "Create".

3) The system will randomly generate user accounts to a spreadsheet file. Review the file and import the users in the spreadsheet file to the system.

3.7 Export User List

This module is designed to export an Excel file of teachers, students and parents accounts in the current school year.

1) Mouse over "User Management" and then click "Export User List".

2) Teacher, Student, and Parent user lists will be displayed.

3) Click "Export User List in Current Year" to download the corresponding user list.

3.8 Reset User Password

All the user passwords used in ESDA v4.6.0 or before are not applicable for ESDA v5.0.x system. The System Administrator has to assist all users in setting the passwords applicable for ESDA v5.0.x system.

If students or parents lose their passwords, System Administrator can reset their passwords with the "Reset Passwords" function.

1) Mouse over "User Management" and then click "Reset Passwords".
2) Input searching criteria such as "User Type", "Group", "Class Level", "Class", "Gender", "User Name" or "Status" and then click "Search".
3) Select the student(s) whose password(s) need to be changed and click "To the right >". ⇨ *Tips*

> *Tips:*
>   To select all student/parent accounts within the user list, please click the "Select All" button in the first row of "User List" and then click "To the right >".

4) Select "Random" or "User defined" in "Password Reset Mode".

5) If "User defined" mode is selected, please input the new password of student/parent to "Login Password".   Password must contain at least 8 characters and require a mix of upper case of English Letters, lower case of English Letters, numbers, and symbols; or it must contain at least 10 characters, with a mix of upper case of English Letters, lower case of English Letters, and numbers or symbols.

6) Click "Password Reset". The password(s) of the selected student(s) or parent(s) will be changed instantly.

Chapter 4 Survey Management

4.1 About Survey Management

This module is used to administer pre-defined surveys for various respondents. There are two types of surveys. The differences are shown in the table below. After entering the Manage Survey module, a summary table shows a list of surveys with "Start / End Date", "Target Users", "Mode" and "Response Rate". To administer a survey, the Administrator selects a survey from the survey list and defines its properties of the survey. The Administrator can specify the start/end date of conducting the survey, choose the survey mode (online, offline, or online and offline), and select target users. To facilitate random target user selection, the system provides a function to draw users randomly with a defined percentage of users.

Online mode means target users fill in questionnaires through the web interface in ESDA. In contrast, offline mode means target users fill in the questionnaires with other methods, such as paper and pen format. Details about publishing online and offline surveys can be found in Sections 4.2 and 4.3.

Before You Begin
The Survey Management module is solely for administering surveys and defining the target respondents of each survey. It supports both online and offline modes to cater for different situations. You should possess the "Survey Management" privilege to access the module.

Best Practices
For Type I Survey, you can administer them once per school year. You should carefully select the survey mode, target respondents and start/end date. Although Type II Surveys can be administered many times per school year, you should not administer these surveys too frequently for the same group of target respondents.

4.1.1 Understanding Survey Types and Modes
There are three types of survey in the system, namely, 1. Stakeholder Survey (SHS), 2. Assessment Program for Affective and Social Outcomes (APASO), and 3. Inspection Related Surveys, namely, External School Review (ESR) Questionnaire, Focus Inspection (FI) Questionnaire, Comprehensive Review (CR) Questionnaire and School Development and Accountability Framework (SDA) Questionnaire. The following is the description of these surveys.

1. Stakeholder Survey (SHS) – It is a measure to help schools collect views from teachers, specialists,

students and parents (random sampling of students and parents across different class levels) on the school work to facilitate school self-evaluation. The survey results form part of the Key Performance Measures (KPM) data.

2. APASO – It allows schools to assess students' performance and development in the affective and social domains. This tool is applicable to Hong Kong primary (P3 – P6) and secondary (S1 – S6) school students. Results from one of the pre-defined survey will form one of the Key Performance Measures item. Please refer to the KPM website (http://kpm.edb.gov.hk) & APASO website (http://apaso.edb.gov.hk) for details.

3. Inspection Related Surveys – This survey is designed to collect views from schools after the completion of related school inspections, including ESR, FI, CR and SDA Questionnaire.

According to the properties of the surveys, the surveys can be classified into two types.

Type I Survey (e.g. SHS)	Type II Survey (e.g. APASO)
1. The surveys can only be administered once per year. 2. The collected responses can be submitted to the EDB through ESDA. 3. All surveys must be assigned to a system group (Teacher, Student, Parent, etc.).	1. The surveys can be administered more than once per year. 2. The collected responses can be submitted to the EDB on an optional basis, except for the KPM. 3. Surveys can be assigned to classes or forms. 4. Surveys can be assigned to specific groups or users.
The duration between administrations of APASO-II Surveys should be at least half a year within the same school year.	

> *Note:*
>
>   You should export the responses of the surveys to KPM items. For details, please refer to Section 4.4.

4.1.2 Preparing Survey for a New School Year
To prepare for administering surveys for a new school year, schools are required to complete the following steps:

- Change School Year Setting, please refer to Section 2.3
- Import User List, please refer to Section 3.6
- Import Update Packages, please refer to Section 2.5

4.1.3 Survey Administrator Tasks

4.1.3.1 Contact System Administrator to ensure that the following items are ready

1) The latest version of Programme Package and Data Package have been imported into ESDA.

2) User accounts which include teacher, student, parent, and specialist (for special schools only), have been created and assigned to appropriate system groups.

3) "Fill In Survey" group permission should be assigned to user groups which will fill in questionnaires online.

4.1.3.2 Administering Stakeholder Survey for Teachers

1) The teacher group is assigned to the target users by default. Please ensure that all teachers, including the principal, are selected in the target user list.

2) Select "online" mode if teachers will fill in the questionnaire through the web interface. Otherwise, select "offline" mode and distribute a copy of the questionnaire and answer sheet to the target respondents. In the Manage Survey module, the response mode can be switched to "online", "offline", or mixed "online and offline".

3) Specify the start and end dates for filling in the questionnaire.

4.1.3.3 Administering Stakeholder Survey for Students

1) Ensure that all student accounts have been created and assigned to the appropriate class level group and class group.

2) All class level groups should be mapped with standard class level codes.

3) To publish Stakeholder Survey for students, Survey Administrator cannot select respondents. Student respondents must be drawn randomly by the system or according to odd or even class numbers of the students.

4) Select "online" mode if students will fill in the questionnaire through the web interface.   Otherwise, select "offline" mode and distribute a copy of the questionnaire and answer sheet to the target respondents. In the Manage Survey module, the response mode can be switched to "online", "offline", or mixed "online and offline".

5) Specify the start and end dates for filling in the questionnaire.

4.1.3.4 Administering Stakeholder Survey for Parents

1) Ensure that all parent accounts have been created and assigned to the appropriate class level group and class group.

2) All class level groups should be mapped with standard class level codes.

3) To publish the Stakeholder Survey for parents, Survey Administrator cannot select respondents. Parent respondents must be drawn randomly by the system or according to odd or even class

numbers of the students.

4) Select "online" mode if parents will fill in the questionnaire through the web interface. Otherwise, select "offline" mode and distribute a copy of the questionnaire and answer sheet to target respondents. In the Manage Survey module, the response mode can be switched to "online", "offline", or mixed "online and offline".

5) Specify the start and end dates for filling in the questionnaire.

4.1.3.5 Administering Stakeholder Survey for Specialists

1) By default, the specialist group is assigned to the target users. Please ensure that all specialists are selected in the target user list.

2) Select "online" mode if specialists will fill in the questionnaire through the web interface. Otherwise, select "offline" mode and distribute a copy of the questionnaire and answer sheet to the target respondents. In the Manage Survey module, the response mode can be switched to "online", "offline", or mixed "online and offline".

3) Specify the start and end dates for filling in the questionnaire.

4.1.3.6 Administering APASO Questionnaire

1) Ensure that all student accounts have been created and assigned to the appropriate class level group and class group.

2) All class level groups should be mapped with standard class level codes.

3) To publish APASO questionnaire, Survey Administrator cannot select respondents. Student respondents must be drawn randomly by the system or according to odd or even class numbers of the students.

4) Select "online" mode if students will fill in the questionnaire through the web interface. Otherwise, select "offline" mode and distribute a copy of the questionnaire to the target respondents. In the Manage Survey module, the response mode can be switched to "online", "offline", or mixed "online and offline".

5) Specify the start and end dates for filling in the questionnaire.

4.1.3.7 Administering External School Review (ESR) Questionnaire

1) Receive a password from the EDB.

2) Ensure that the system clock of the server is set up properly.

3) Ensure that the ESDA server is connected to the Internet, which is necessary for publishing an ESR questionnaire.

4) Select the principal, teachers and specialists (for special schools) in the target user list.

5) Only "Online" mode is provided for this questionnaire. Once the questionnaire is activated, the duration for completion is 4 weeks. Please inform the target respondents of the start and end dates.

4.1.3.8 Administering Focus Inspection (FI) Questionnaire

1) Receive a password from the EDB.

2) Ensure that the system clock of the server is set up properly.

3) Ensure that the ESDA server is connected to the Internet, which is necessary for publishing a FI questionnaire.

4) Select the principal, teachers and specialists (for special schools) in the target user list.

5) Only "Online" mode is provided for this questionnaire. Once the questionnaire is activated, the duration for completion is 4 weeks. Please inform the target respondents of the start and end dates.

4.1.3.9 Administering Comprehensive Review (CR) Questionnaire
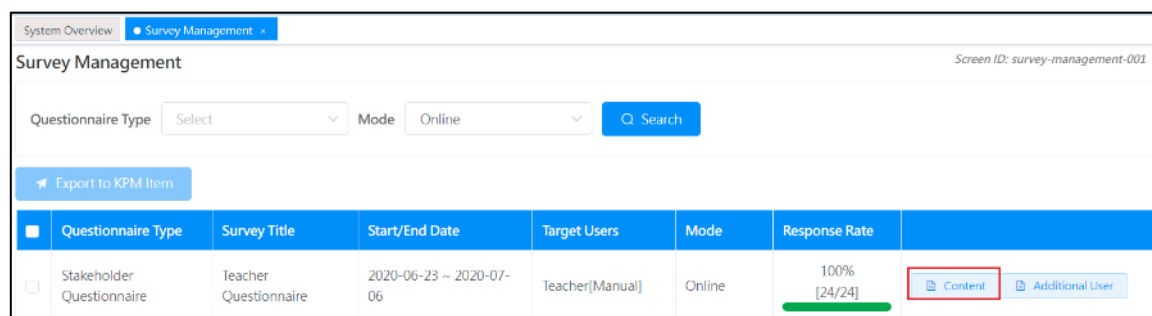
1) Receive a password from the EDB.

2) Ensure that the system clock of the server is set up properly.

3) Ensure that the ESDA server is connected to the Internet, which is necessary for publishing a CR questionnaire.

4) Select the principal, teachers and specialists (for special schools) in the target user list.

5) Only "Online" mode is provided for this questionnaire. The duration for completion is specified in the notification letter. Please inform the target respondents of the start and end dates.

4.1.3.10 Administering School Development and Accountability Framework (SDA) Questionnaire

1) Receive a password from the EDB.

2) Ensure that the system clock of the server is set up properly.

3) Ensure that the ESDA server is connected to the Internet, which is necessary for publishing a SDA questionnaire.

4) Select the principal, teachers and specialists (for special schools) in the target user list.

5) Only "Online" mode is provided for this questionnaire. The duration for completion is specified in the notification letter. Please inform the target respondents of the start and end dates.

4.1.3.11 Other Tasks

1) You may download the user list that has not completed the online questionnaires and inform those users to complete the questionnaire.

2) If some users have not submitted the above questionnaire after the survey deadline, you may contact the Indicators Section of the EDB to extend the survey end date.

3) You can export the responses to Key Performance Measures (KPM) items when the response rate has reached 100% before the end date or the time for doing the survey has ended (i.e. the current date is after the end date). Select the relevant questionnaire and click "Export to KPM Item".

4.2 Publish Survey

The Stakeholder Surveys will be updated every school year. Therefore, System Administrator must perform a system update before publishing the Stakeholder Survey. For details, please refer to Section 2.5.

Schools may publish online surveys so that target users can use their workstations or tablet computers to do the questionnaires. Offline surveys may be published. The steps to publish an online survey are similar to publish an offline survey, except that checking the "Offline" mode is required. Stakeholders may use paper and pen to do the offline survey. After that, Survey Administrator is required to compile the responses into an Excel file and upload it to the ESDA system. Please refer to Section 4.4 for details.

> *Note:*
> 1) *To meet the latest security requirement, the effective period for a user password is six months. Users will receive a mandatory request for changing the password and cannot re-use the previous eight passwords.*
> 2) *For schools publishing questionnaires via online mode, System Administrator may use the function "reset user password" to help users to reset the passwords before publishing the questionnaires, if necessary. Please refer to Section 3.8 for details.*

To better manage the questionnaires, schools may publish questionnaires according to odd or even class numbers of the students. The steps for publishing different types of questionnaires to the target respondents are as follows:

4.2.1 Publishing Stakeholder Survey for Teachers
1) Click "Survey Management" and then click "Publish Survey".
2) Click "Publish" next to the "Teacher Questionnaire".

3) Click "Select User" to select teachers and click "Setting" to select the mode.
4) Enter "Start/End Date" and "Objectives", and then click "Confirm".

> *Note:*
> (1) The Teacher group is selected by default. You can select additional groups or users by clicking "Select User".
> (2) The objectives are provided by default. You can change them if necessary.
> (3) The system shows the teacher list within the teacher group. You should ensure that all the teachers (including the principal) are shown in the list. Otherwise, you should select the users by clicking the "Select User".

4.2.2 Publishing Stakeholder Survey for Students

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Student Questionnaire".

3) Click "Select User" to select students and click "Setting" to select the mode.

4) Enter "Start / End Date" and "Objectives", and then click "Confirm".

> *Note:*
> (1) The system draws students randomly from each class or according to odd or even class numbers of the students. The user list will be shown in the target user list. You can download the user list after publishing the survey.
> (2) The objectives are provided by default. You can change them if necessary.
> (3) For Stakeholder Survey for students in special schools, target users are selected by Survey Administrator.

> *Tips:*
> S6 students who have left schools after examinations can be excluded from this survey.

4.2.3 Publishing Stakeholder Survey for Parents

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Parent Questionnaire".

3) Click "Select Users" to select parents and click "Setting" to select the mode.

4) Enter "Start/End Date" and "Objectives", and then click "Confirm".

Note:
1. (1) The system draws parents randomly from each class or according to odd or even class numbers of the students. The user list will be shown in the target user list. You can download the user list after publishing the survey.
2. (2) All parents of special schools have to fill in the survey. Hence, the system will draw 100% of the parent accounts.

3. (3) The English and Chinese Objectives are provided by default. You may change them if necessary.

Tips:
Parents of S6 students who have left schools after examinations can be excluded from the survey.

4.2.4 Publishing Stakeholder Survey for Specialists (For Special Schools only)

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Specialist Questionnaire".

3) Click "Select User" to select specialists and click "Setting" to select the mode.

4) Enter "Start/End Date" and "Objectives", and then click "Confirm".

Note:

(1) The Specialist group is selected by default. You can select additional groups or users by clicking "Select User".

(2) The objectives are provided by default. You can change them if necessary.

(3) The system shows the specialist list within the specialist group. You should ensure that all the specialists are shown in the list. Otherwise, you should select the users by clicking the "Select User".

4.2.5 Publishing APASO Survey

Procedures for publishing APASO-II or APASO-III surveys are the same, which stated as follows:

4.2.5.1 Method 1: Select Target Users from Class or Class Level

1) Mouse over "Survey Management" and then click "Publish Survey".

2) Click "Pre-defined Survey" to expand the given scales/subscales combination.

3) Click "Publish" next to the APASO surveys (e.g. "Self-Concept").
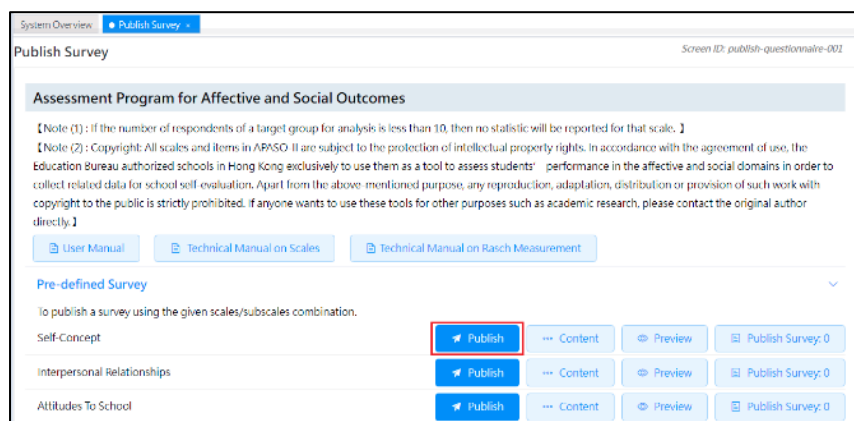
4) Click the radio button next to "From class or class level (all users or randomly selected)" and then click "Select User".
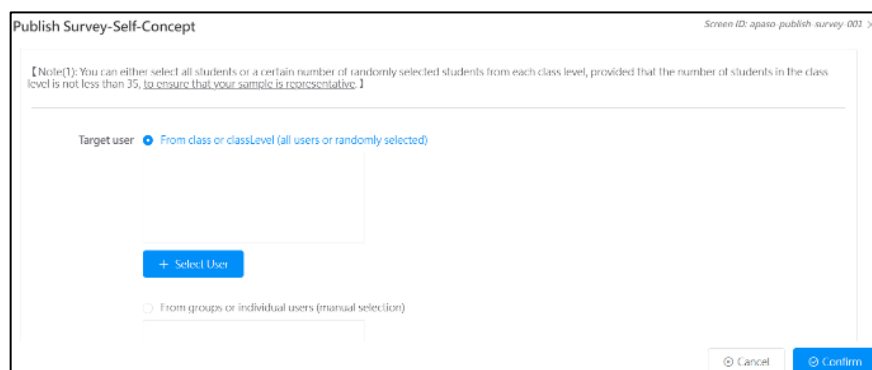
5) Select "Select User" (All Student, Class Level or Class).

6) Choose the "Selected Method" (All users in the selected group, Odd class number, Even class number or Random selection), and then click "Confirm".

7) If "Random selection" is selected, input "Percentage of students to be chosen" and click "Compute", and then click "Confirm"

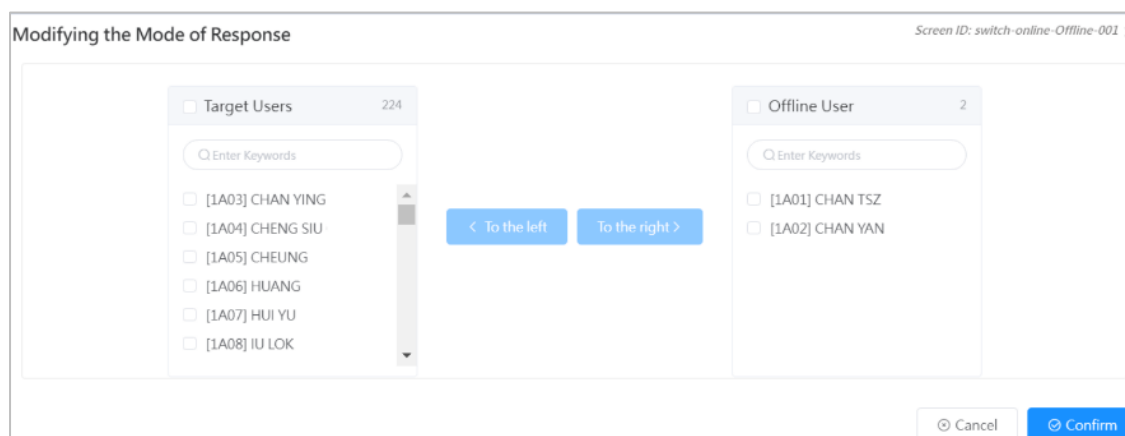8) Click "Setting" to select the mode ("Online User" and "Offline User").

9) Select target users and click "< To the left" or "To the right >" to set the mode of response, and then click "Confirm".

10) Enter the "Start/End Date" and "Objectives", and then click "Confirm".

4.2.5.2 Method 2: Select Target Users from Group or Individual User

1) Mouse over "Survey Management" and then click "Publish Survey".

2) Click "Pre-defined Survey" to expand the given scales/subscales combination.

3) Click "Publish" next to the APASO surveys (e.g. "Self-Concept").
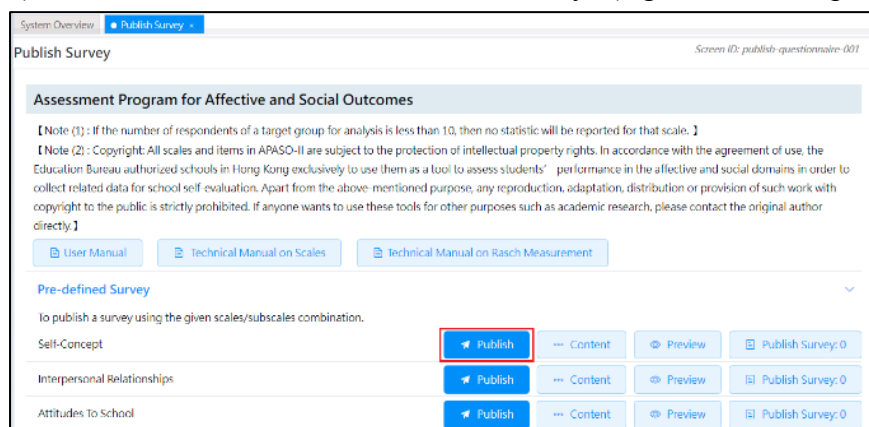
4) Method 1: Click the radio button next to "From class or class level (all users or randomly selected)", and then click "Select User".
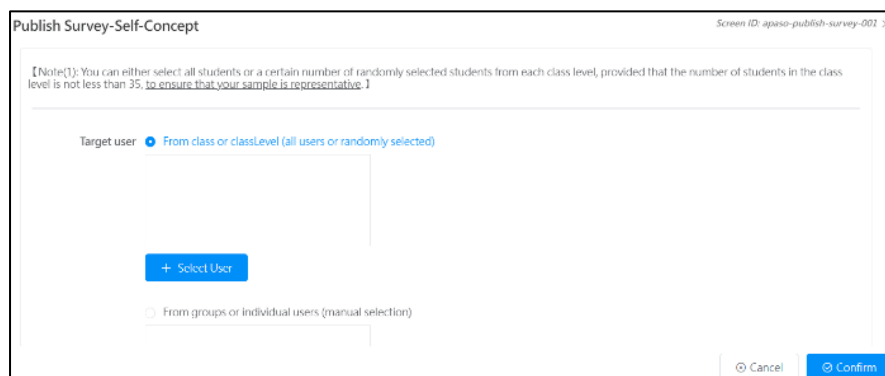
5) Method 2: Click the radio button next to "From groups or individual users (manual selection)", and then click "Select User".

6) Select target users and click "< To the left" or "To the right >" to set the mode of response, then click "Confirm".
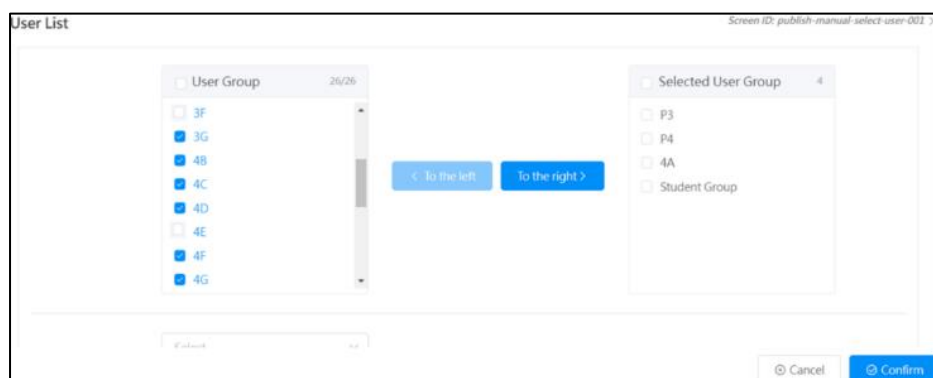
> ***Note:***
>
>   The system can only select target users by either method 1 (i.e. "From class or class level") or method 2 (i.e. "From groups or individual users"), but not both.

> ***Tips:***
>
>   If schools would like to export the responses of APASO Survey to KPM item "Students' Attitude to the Nation and School" (for APASO-II of primary schools) or "Affective Development" (for APASO-III of secondary schools), the pre-defined surveys "Students' Attitude to the Nation and School" and "Affective Development" should be published via the ESDA system. Schools may select all students or not less than half of the students randomly for each class level for the surveys to ensure that the results are representative.

4.2.5.3 Creating School Concerned APASO user-defined Survey

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Add Custom Questionnaire" in the "User-defined Survey".

3) Select subscales items.

4) Enter the survey title and objective, and click "Submit".

5) If "To collect students' and their families' background information" is selected in APASO-III, read the statement and click "Confirm".

6) Select the combination of subscales and click "Confirm".

4.2.5.4 Publishing a user-defined survey

1) Click "Survey Management" and then click "Publish Survey".

2) User-defined surveys that were created before will be displayed.

3) Click "Publish" button next to the survey.

> *Note:*
> (1) Same survey title cannot be used;
> (2) Each user defined survey shall not contain more than 100 questions.

4.2.6 Publishing ESR Questionnaire

This questionnaire is only applicable to schools that have undergone ESR in that school year.

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Questionnaire on ESR".

3) Enter a password and click "Confirm".　The ESR team leader will provide the password when the draft ESR report is issued to the school by mail.

4) Click "Extract Online User" to select target users and then click "Confirm".

Note:
Schools can select target users but not the Start/End Date of the questionnaire. The questionnaire should be completed within four weeks.

4.2.7 Publishing FI Questionnaire

This questionnaire is only applicable to schools that have undergone FI in that school year.

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Questionnaire on FI".

3) Enter a password and click "Confirm". The password will be available in the EDB letter.

4) Click "Extract Online User" to select target users and then click "Confirm".

> *Note:*
> Schools shall check the Start/End Date of the questionnaire. The questionnaire should be completed within the specified period.

4.2.8 Publishing CR Questionnaire

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Questionnaire on Comprehensive Review".

3) Enter a password and click "Confirm". The password will be available in the EDB letter.

4) Click "Extract Online User" to select target users and then click "Confirm".

4.2.9 Publishing SDA Questionnaire

1) Click "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the "Questionnaire for School Development and Accountability Framework".

3) Enter a password and click "Confirm". The password will be available in the EDB letter.

4) Click "Extract Online User" to select target users and then click "Confirm".

Note:
Schools shall check the Start/End Date of the questionnaire. The questionnaire should be completed within the specified period.

4.2.10 Publish School-based Survey

4.2.10.1 Method 1: Select Target Users from Class or Class Level

1) Mouse over "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the School-based survey.

3) Click the radio button next to "From class or class level (all users or randomly selected)" and then click "Select User".

4) Select "Select User" ("All Students", "Class Level", "Class", "All Teachers" or "All Parents").

5) Choose the "Selected Method" ("All users in the selected group" or "Random selection"), and then click "Confirm".

6) If "Random selection" is selected, input "Percentage of users to be chosen" and click "Compute", and then click "Confirm"

7) Click "Setting" to select the mode ("Online User" and "Offline User").

8) Select target users and click "< To the left" or "To the right >" to set the mode of response, and then click "Confirm".

9) Enter the "Start/End Date" and "Objectives", and then click "Confirm".

4.2.10.2 Method 2: Select Target Users from Group or Individual User

1) Mouse over "Survey Management" and then click "Publish Survey".

2) Click "Publish" next to the School-based survey.

3) Click the radio button next to "From groups or individual users (manual selection)", and then click "Select User".

4) Select target users from "User Group"/"User List" and click "< To the left" or "To the right >" to select users and then click "Confirm" to complete the user selection.
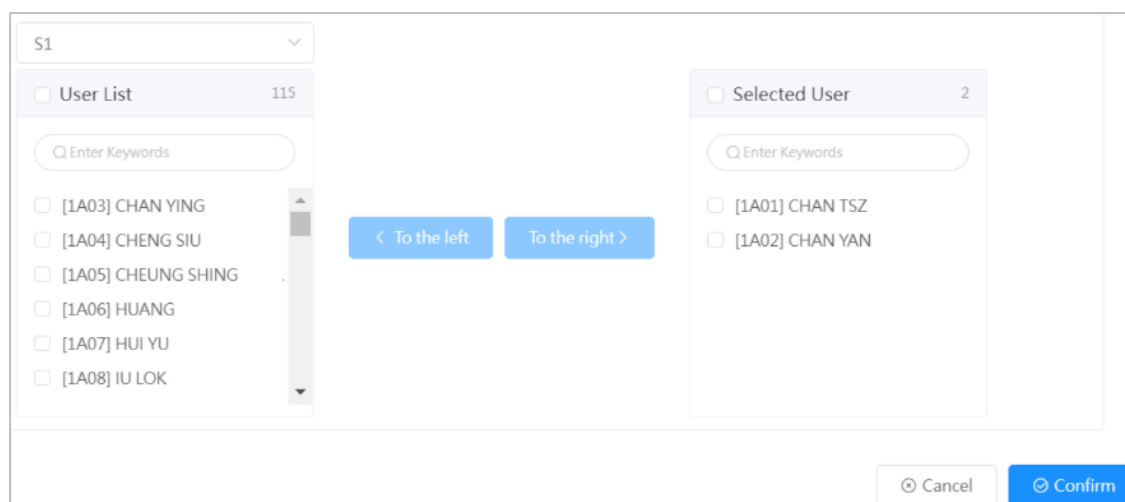
5) Click "Setting" to select the mode ("Online User" and "Offline User").
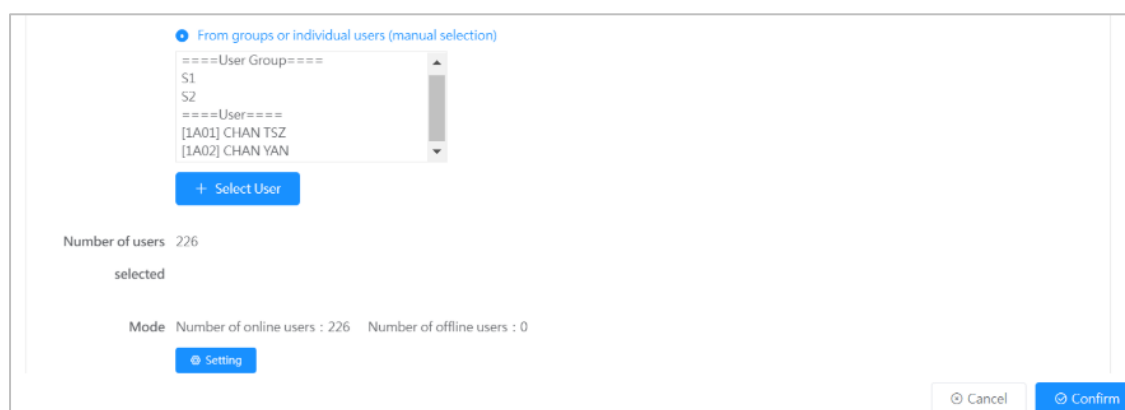
6) Select target users and click "< To the left" or "To the right >" to set the mode of response, and then click "Confirm".

7) Enter the "Start/End Date" and "Objectives", and then click "Confirm".

Note:

Schools shall check the Start/End Date of the questionnaire. The questionnaire should be completed within the specified period.

4.3 Manage Survey

4.3.1 Download User List

Schools may distinguish the users who responded the survey. The following steps show the way to download a user list of a survey in progress:

1) Mouse over "Survey Management" and then click "Manage Survey".

2) Click "Content" next to the targeted questionnaire.

3) Click "Download User List".

> **Note:**
>
> The user list contains the target user list and the submission status of each target user. If a target user submits the questionnaire through online submission, the submission status indicates whether the target user has submitted the questionnaire or not.

4.3.2 Update Start / End Date

Schools may change the start / end date through the following steps:

1) Mouse over "Survey Management" and then click "Manage Survey".

2) Click "Content" next to the targeted questionnaire.

3) Select the Start/End Date and click "Save".

> *Tips:*
>
> If you want to close the questionnaire survey, you can set the end date earlier than the current date.

4.3.3 Cancel Survey

Schools may cancel the published survey.

1) Mouse over "Survey Management" and then click "Manage Survey".

2) Click "Content" next to the targeted questionnaire.

3) Click "Cancel Questionnaire".

4) For a survey with more than 0% response rate, input the number of users who completed the questionnaires and click "Confirm" to cancel the survey.

4.3.4 Download Questionnaire

When the school chooses to publish the questionnaire in offline mode, the school can download and distribute the questionnaire to the target users as follows:

1) Mouse over "Survey Management" and then click "Manage Survey".
2) Click "Content" next to the Teacher / Student / Parent questionnaire.
3) Click "Download Questionnaire".

4.4 Importing Offline Survey Responses

Survey Administrator may publish ESDA survey in offline mode. Respondents may fill in the survey by means of paper and pen. Data are then manually input into the ESDA system.

Data Operator shall complete the following tasks:
1) Collect offline survey responses (e.g. hard copies).
2) Mouse over "Survey Management" and then click "Manage Survey". Download a csv template by clicking "Offline Data Import" on the right side of the related questionnaire.

3) Click "Download CSV Template" to export the file.

4) Input data and save the Excel file.

5) Import the saved Excel file to ESDA. Select "Append" or "Replace". Uploaded data will be kept if "Append" is selected or will be replaced if "Replace" is selected.

> **Note:**
> If you want to remove all imported responses from the system before importing the new records, please select "Replace" in "Import Mode" and then click "Import".

6) Click "Select File" to select a suitable file to be uploaded and click "Import".

7) When all responses have been stored into ESDA, export the results to KPM Item.

4.5 Export Survey Responses to KPM Items

4.5.1 Export Stakeholder Survey Responses to KPM Items

1) Mouse over "Survey Management" and then click "Manage Survey".

2) Check the checkbox(es) for those questionnaires to be exported. You may export more than one questionnaire at the same time.

3) Click "Export to KPM Item".

> ***Note:***
>
>   It is recommended to export the KPM Items after you have imported all responses from target respondents. However, you can export the KPM Items again in case the data is updated.

4.5.2 Export APASO Survey Responses to KPM Item

> ***Note:***
>
>   1) Schools may publish APASO questionnaires several times in the same school year but should be at least 6 months apart from each release to the same group for the same survey.
>
>   2) Schools should extract data which covering students in all class levels (P3-6 for primary schools, secondary schools may choose whether to cover S6 students or not) and not less than half of the students from any one time frame to KPM item. Operation steps are as follows:

1) Click "Manage Survey".
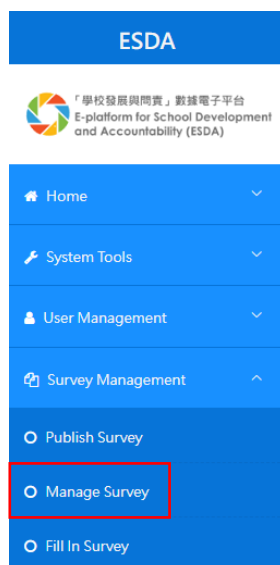
2) Click the left box of the target survey (e.g. "Students' Attitudes toward the Nation and School" (applicable to APASO-II for primary schools), or "Affective Development" (applicable to APASO-III for secondary schools)), for "Pre-defined Survey" only.

3) Click "Export To KPM Item" (Note: Only one "Students' Attitudes toward the Nation and School" or "Affective Development" survey can be selected for each school year.).

> *Tips:*
>
> If you wish to export the survey responses to the KPM item "Students' attitudes toward the Nation and School" (applicable to APASO-II for primary schools), or "Affective Development" (applicable to APASO-III for secondary schools), you should publish the pre-defined survey "Students' Attitudes toward Nation and School" or "Affective Development". You can either select all students or a certain number of randomly selected students from each class level, provided that the number of students at the class level is not less than half, to ensure that your sample is representative.

4.5.3 Export APASO-III User-defined Survey Responses to KPM Item

The system can only export the pre-defined survey of APASO to KPM item. If school is planning to use the user-defined surveys to collect data including "Affective Development (Applicable to KPM17)" and other subscales, System Administrator may follow the steps below to export the results of one or more user-defined survey(s) to KPM.

1) After students completing the questionnaires, System Administrator presses "APASO- III Report" under "Report Management". Then, select "Year Report" for the "Report Type". Press "Export Whole School Raw Data" after choosing appropriate survey information.
2) Repeat Step 1, if school publish more than one user-defined surveys to collect the raw data for "Affective Development (Applicable to KPM17)".
3) Publish a pre-defined survey "Affective Development (Applicable to KPM17)" according to Section 4.2.5.
4) Combine all the raw data from Steps 1 and 2 above. Import the respondents' information and the first 59 responses to the offline template in Step 3.
5) Export the data to KPM item according to Section 4.5.2.

4.6 Fill In Survey

About Fill in Survey

After login, the user can view a list of surveys that are assigned to him/her. Upon completing a survey, the user can click the "Confirm" button to save his/her responses in the system. For Stakeholder Survey, the respondents are anonymous, and all survey items are compulsory. Users must fill in all survey items before submitting the responses. For APASO surveys, the respondents are also anonymous, but the survey items are not compulsory. In the first survey submission, the system will alert the users about un-filled survey items and highlight these items by changing their background color.

Before You Begin

To fill in an online survey, your account should possess a "Fill In Survey" privilege. If you cannot access the "Fill In Survey", please consult your System Administrator to acquire the privilege.

Best Practices

The system pops up a new window when you start to complete a questionnaire. Not clicking any button at the top of the original window is recommended when doing an online survey in ESDA.

Survey Administrator or users, including teachers, students and parents, can complete the survey via desktop or tablet computer. The following sections provide a brief description of how to fill in the surveys:

4.6.1   Filling in Stakeholder Survey

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "View" next to the target survey at Pending survey.

3) View the instructions and then click "Begin".

4) Fill in the survey and click "Submit".

Note:

   You must respond to all questions. Otherwise, you cannot submit the questionnaire.

4.6.2 Filling in APASO Survey

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "View" next to the target survey at Pending survey.

3) View the instructions and then click "Begin".

4) Fill in the survey and click "Submit".

Note:

You are allowed to submit the questionnaire without responding to all questions. However, the system will alert you to any un-filled questions in the first submission. The system will alert you again in the second submission on any un-filled questions, but you can still submit the questionnaire.

4.6.3 Filling in ESR Questionnaire

When a school has undergone External School Review, the principal and teachers are invited to fill in the ESR Questionnaire.

1) Click "Survey Management" and then click "Fill In Survey".
2) Click "View" next to the target survey at Pending survey.
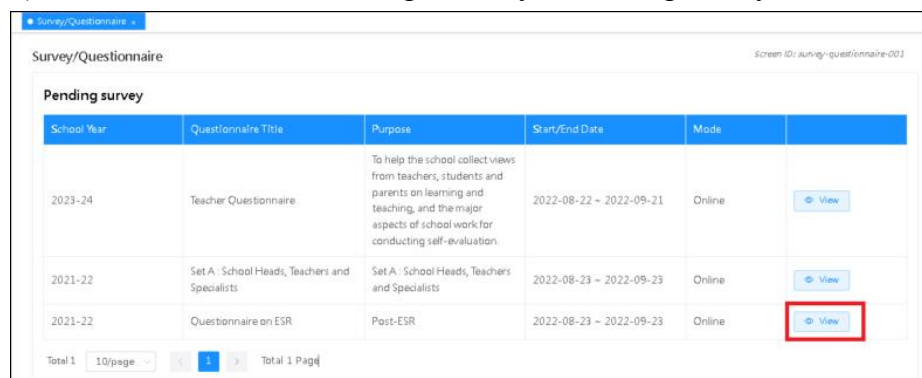
3) Common Log-On System (CLO) authentication is required for filling in the survey. The following screen will be shown for the first time logging in. This step will be skipped afterward.
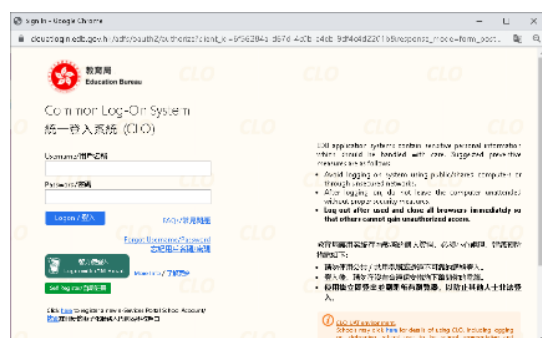
4) Fill in the survey and click "Submit".
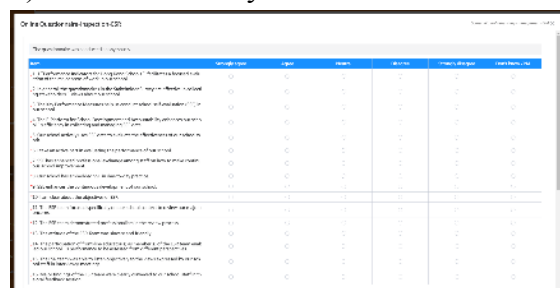
> **Note:**
> If you cannot load the questionnaire or cannot submit the questionnaire, please contact your System Administrator to check the Internet connection of the ESDA server.

4.6.4 Filling in FI Questionnaire

When a school has undergone Focus Inspection, the principal and teachers are invited to fill in the FI Questionnaire.

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "View" next to the target survey at Pending survey.
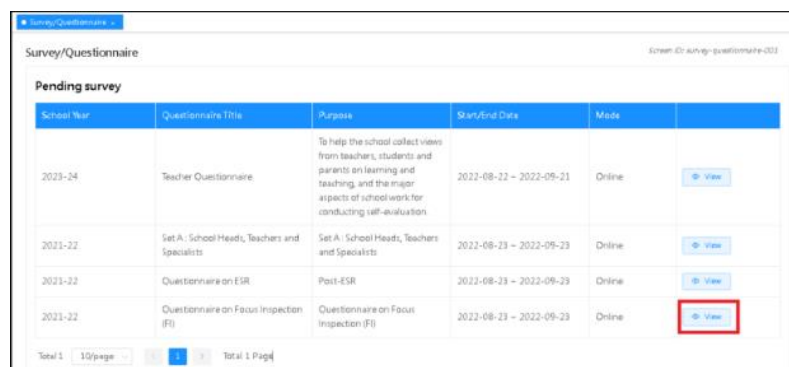
3) CLO authentication is required for filling in the survey. The following screen will be shown for the first time logging in. This step will be skipped afterward.
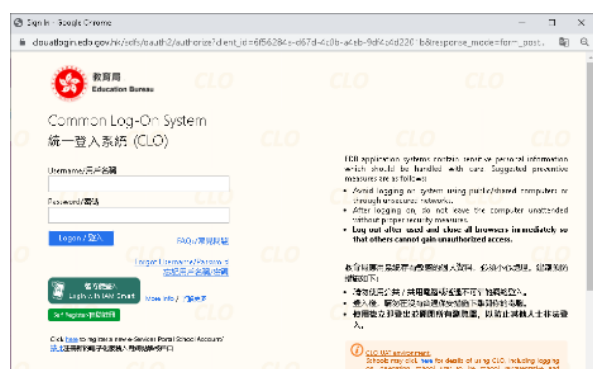
4) Fill in the survey and click "Submit".
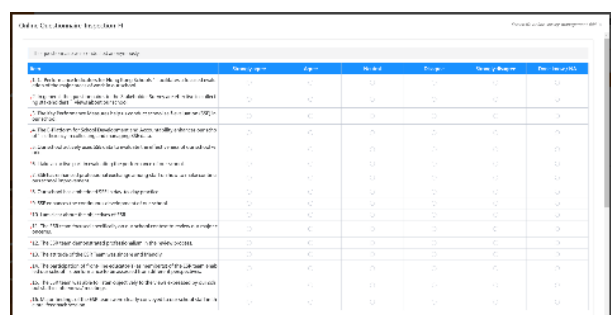
> **Note:**
> If you cannot load the questionnaire or cannot submit the questionnaire, please contact your System Administrator to check the Internet connection of the ESDA server.

4.6.5 Filling in CR Questionnaire

When a school has undergone a Comprehensive Review, the principal and teachers are invited to fill in the CR Questionnaire.

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "View" next to the target survey at Pending survey.
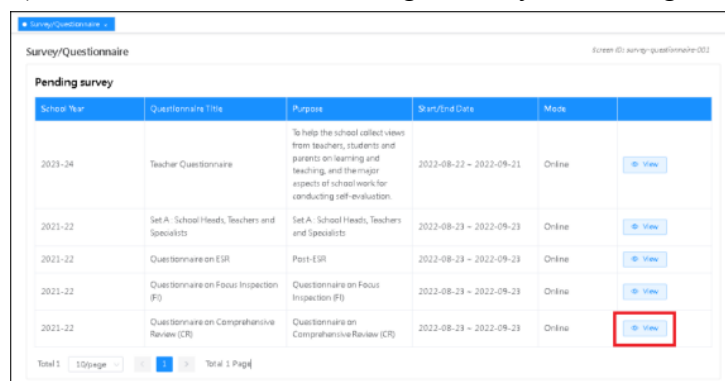
3) CLO authentication is required for filling in the survey. The following screen will be shown for the first time logging in. This step will be skipped afterward.

4) Fill in the survey and click "Submit".

4.6.6 Filling in SDA Questionnaire

When a school has undergone External School Review, the principal and teachers are invited to fill in the SDA Questionnaire.

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "View" next to the target survey at Pending survey.

3) CLO authentication is required for filling in the survey. The following screen will be shown for the first time logging in. This step will be skipped afterward.

4) Fill in the survey and click "Submit".

> **Note:**
> If you cannot load the questionnaire or cannot submit the questionnaire, please contact your System Administrator to check the Internet connection of the ESDA server.

4.6.7 Filling in School-based Survey

1) Click "Survey Management" and then click "Fill In Survey".

2) Click "Start" next to the target survey at the list of Pending survey.

3) Fill in the survey and click "Submit".

4.6.8 Filling in Offline Survey

ESDA allows Stakeholder Survey, APASO and School-based questionnaires to be done via "offline" mode, i.e. respondents will answer the questionnaire in paper and pen. The Survey Administrator will enter the responses into the system manually. For details, please read Section 4.4.

Chapter 5 Data Input

5.1 About Data Input

System Operator can choose to input the data of these KPM items directly through the web interface. The system can validate the data types and the ranges of the values on entry. In addition, the valid range of data is shown next to each field to remind the Operator of the valid range of data. The Operator can save the data of a specific KPM item as "Draft" if the data are not finalised. Data marked as "Draft" will not be extracted in the Data Submission module.

Before You Begin

To access this functional module, your account should possess a "Data Input" privilege. If you cannot access the "Data Input", please consult your System Administrator to acquire the privilege.

Understanding KPM

KPM is a tool developed by the EDB under the "School Development and Accountability" framework. It is a school data system built on the "Performance Indicators" framework, providing objective and quantitative data to supplement the performance indicators, which are mainly qualitatively orientated. For details of KPM, please refer to the KPM website (https://www.edb.gov.hk/en/sch-admin/sch-quality-assurance/performance-indicators/kpm/index.html).

5.1.1 Data Operator Guide

Survey Administrator may coordinate with Data Operator to perform data input on various ESDA modules. The following sections briefly describe the major tasks that a Data Operator should perform in various situations.

Contact System Administrator to ensure that the following items are ready.

1) You should possess "Data Input" privilege for viewing the school year from the "Input KPM Data" and input the year for "Current School Development Cycle". Please ensure that the school years for inputting data are enabled.
2) Export a csv file from APASO application (for importing offline APASO data).
3) Results of Stakeholder Survey of previous school years.
4) Results of "Attitudes to School" in APASO of previous school years.

5.2 Input KPM Item Data

1) Mouse over "Data Input" and then click "Input KPM Data".

2) Click "Edit" next to the "Current School Development Cycle".

3) Input the School Year and click "Save".

4) Click the links for the KPM items.

5) Enter the values. If some data are unavailable at this moment, Data Operator can tick "No data at present" and then click "Save".

> *Note:*
>   Data Operator may click the "View KPM Data" button to view the current KPM value stored.

> **Note:**
>   (1) You should click "Hold" if the data of a KPM item are not finalised.
>   (2) You should enter the value within the "Acceptance Range".
>   (3) You can choose other KPM items from the pull-down menu.
>   (4) Data marked as "Draft" will not be exported to the EDB in the "Data Submission" module. Data marked as "Partially Completed" or "Completed" will be exported to the EDB.

5.3 Input Physical Development Data

In ESDA v5.0.x, students' height and weight information are added to student records. The Students' Physical Development data can be calculated from the student account records.

5.3.1 Import Data

1) Mouse over "Data Input" and then click "Input Physical Development Data".

2) Click "Download Template File" to download the input file template.

3) Click "Choose File" to choose file to be imported, and click "Upload Excel File".

5.3.2 Update Data

1) Mouse over "Data Input" and then click "Input Physical Development Data".
2) Input searching criteria, such as "Class Level", "Class", "Gender", "User Name" or "Status" and click "Search".
3) Click "Edit".

4) Input values and click "Save".

5.3.3 Export Student Physical Development Data to KPM Item

1) Mouse over "Data Input" and then click "Input Physical Development Data".

2) Click "Export to KPM Item (KPM22)" to export data.

3) Click "Cancel" after completion.

Chapter 6 Report Management

6.1 About Report Management

This functional module is mainly designed for data analysis as well as the output of the results. The display is in two formats (table and chart). Different forms of displays will be shown according to the types of surveys. The system provides reports for Stakeholder Survey, KPM, APASO and School-based Survey.

6.1.1 Before You Begin

To access this functional module, your account should possess a "Report Management" privilege. If you cannot access the "Report Management", please consult your System Administrator to acquire the privilege.

6.1.2 Best Practices

To generate complete and meaningful reports, you should ensure the completeness and correctness of data collection in related sections. For KPM item, you can check the correctness of the KPM item in "Data Input" module. For Stakeholder Survey and APASO, you should ensure all responses from respondents are stored in the system.

6.2 Stakeholder Survey Report

1) Mouse over "Report Management".

2) Click "Stakeholder Survey Report".

3) Select "Report Type", including "Overall Report", "Stakeholder Opinion Comparison" and "Cross Year Comparison".
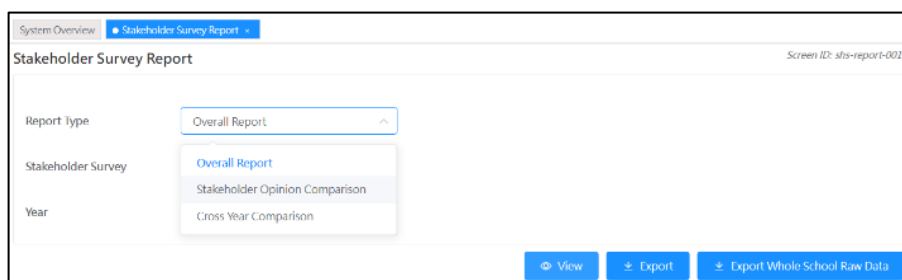
4) To view "Overall Report"
   - Select "Overall Report" in "Report Type".
   - Select "Stakeholder Survey" and "School Year".
   - Click "View".

5) To view "Stakeholder Opinion Comparison" Report

- Select "Stakeholder Opinion Comparison" in "Report Type".
- Select "School Year".
- Click "View".

6) To view "Cross Year Comparison" Report

- Select "Cross Year Comparison" in "Report Type".
- Select Stakeholder Survey and "From" and "To" of the school year.
- Click "View".

7) To export the reports, click "Export".

6.3 KPM Item Report

1) Mouse over "Report Management".

2) Click "KPM Item Report".

3) Select school years.

4) Click "Export All".

5) Click "Open" for the Excel file.

6) Click "Run Macro" upon opening the Excel file.

System Overview	● KPM Item Report ×

KPM Item Report   *Screen ID: kpm-report-001*

Please select the following school year option (maximum 3 years) to generate the KPM Item Report:

Refer School Year	2021-22
Optional School Year	2020-21
Optional School Year	2019-20

⬇ Export All

> *Note:*
> The security level in the Excel program must be set to "middle" or "low" in order to run the macro above. In general, select "Tools" > "Macro" > "Security" in the Excel function bar and change the security level to Middle.

6.4 Assessment Program for Affective and Social Outcomes (2nd version) (APASO-II) Report

In addition to the normal Current Report, users may choose Cross Year Report, Same Student Group Comparison Report or Subscales Comparison Report.

> *Note:*
> After clicking the APASO-II report link, the system will prompt four additional selection links: (1) Current Year Report, (2) Cross Year Report, (3) Same Student Group Comparison Report, and (4) Subscales Comparison Report.

6.4.1 APASO-II report - Current Year Report

1) Mouse over "Report Management".

2) Click APASO-II Report.

3) Click "Current Year Report".

4) Select the appropriate Year, Survey Title and Time Frame.

5) Select the appropriate Report Type and Data Set.

6) Select corresponding sub-items of the respondents.

7) Click "View Respondent Group Report" and open the Excel file.

<div style="border:1px solid">

Note:

    (1) Some options in "Respondent Group" will be dimmed if they are not applicable to the selected report type.

    (2) The system will prompt a message if the number of options in the generated report exceed 100, please reduce the number of options and re-run the report.

    (3) To export raw data for this survey, click "Export Whole School Raw Data".

</div>

6.4.2 APASO-II report - Cross Year Report

1) Mouse over "Report Management".

2) Click "APASO-II Report".

3) Click "Cross Year Report".

4) Select the appropriate Survey Title.

5) Select the appropriate Time Frame.

6) Click "View Respondent Group Report" and open the Excel file.

> **Note:**
>   The system will only generate a report if there are data of two or more time frames.

6.4.3 APASO-II report – Same Student Group Comparison Report

1) Mouse over "Report Management".

2) Click "APASO-II Report".

3) Click "Same Student Group Comparison Report".

4) Select the appropriate Year.

5) Select the appropriate Survey Title.

6) The system will search and prompt the published surveys.

7) Select the appropriate Period.

8) Click "View Respondent Group Report" and open the Excel file.

6.4.4 APASO-II report – Subscales Comparison Report

1) Mouse over "Report Management".

2) Click "APASO-II Report".

3) Click "Subscales Comparison Report".

4) Select the appropriate subscales.

5) Click "Next".

6) Select the appropriate Time Frame.

7) Click "View the Selected Group Comparison Report".

6.5 Assessment Program for Affective and Social Outcomes (3rd version) (APASO-III) Report

In addition to the Year Report, users may choose Cross Year Report, Same Student Group Comparison Report, Comparison Report, Socioeconomic Status Report or Gender Comparison Report.

> *Note:*
>   After clicking the APASO-III report link, the system will show six report types for selection: (1) Year Report, (2) Cross Year Report, (3) Same Student Group Comparison Report, (4) Comparison Report, (5) Socioeconomic Status Report and (6) Gender Comparison Report.

6.5.1 APASO-III report - Year Report

1) Mouse over "Report Management".

2) Click APASO-III Report.

3) Click "Year Report".

4) Select the appropriate Year, Survey Title and Time Frame.

5) Select the appropriate Report Type and Data Set.   Select "Subscale Report" or "Item Report" for Report Type. Select "Q-Score" or "P-Score" for Data Set.

6) Select corresponding sub-items of the respondents.

7) Click "View".

> *Note:*
> (1) System will only generate report with more than 10 respondents.
> (2) Some options in "Respondent Group" will be dimmed if they are not applicable to the selected report type.
> (3) The system will prompt a message if the number of options in the generated report exceed 100, please reduce the number of options and re-run the report.
> (4) To export raw data for this survey, click "Export Whole School Raw Data".

6.5.2 APASO-III report - Cross Year Report

1) Mouse over "Report Management".

2) Click "APASO-III Report".

3) Click "Cross Year Report".

4) Select the appropriate Year, Survey Title, Time Frame and Respondents.

5) Select the appropriate subcales.

6) Select the Respondent Group and click "Next".

7) Select the Year to compare, Survey Title, Time Frame and Respondents.

8) Select the Data Set and click "View".

> *Note:*
> The system will only generate a report if there are data of two or more time frames.

6.5.3 APASO-III report – Same Student Group Comparison Report

1) Mouse over "Report Management".

2) Click "APASO-III Report".

3) Click "Same Student Group Comparison Report". This report can only compare and trace the data for two consecutive years.

4) Select the appropriate Year, Survey Title, Time Frame and Respondents.

5) Select the appropriate Subscale.

6) Select the Respondent Group and click "Next"

7) Click "View".

Note:
To export raw data for this survey, click "Export Whole School Raw Data".

6.5.4 APASO-III report – Comparison Report

1) Mouse over "Report Management".

2) Click "APASO-III Report".

3) Click "Comparison Report".

4) Select the appropriate Year, Survey Title, Time Frame and Respondents.

5) Select the appropriate Subscale, click "Next". At most six subscales can be selected.

6) Select the appropriate "Time Frame and Respondents".

7) Select the appropriate "Respondent Group", the tentative group would be shown under "Selectable Group", click "Select" to move to "Selected Group" or click "Delete" to remove inappropriate group(s).

8) Click "Next" after selecting the required groups.

9) Select item for *x*-axis and Data set, click "View". You may select "Subscale" or "User Group" as *x*-axis as appropriate.

Report Type	Comparison Report	

Subscale Selected

SWBP - Affect (Positive Affect)	SWBN - Affect (No Negative Affect)	GFOFAIL - Affect (No Fear of Failure)
GANXDEP - Affect (No Anxiety, Depressive Symptoms)	ANXTEST - Affect (No Academic Anxiety)	PSYSOM - Affect (No Psychosomatic Symptoms)

Group

Group1: Year: 2022-23 Survey: Student: Psychological Health Time Frame and Respondents: 2022-08-29 ~ 2022-09-28 [All] 4.53% [30/662] Group: Senior

X Axis ● Subscale ○ User Group

Data Set ● Q-Score ○ P-Score

🔍 View   Back

6.5.5 APASO-III report – Gender Comparison Report

1) Mouse over "Report Management".

2) Click "APASO-III Report".

3) Click "Gender Comparison Report".

4) Select the appropriate Year, Survey Title, Time Frame and Respondents.

5) Select the appropriate Data Set and Subscale. At most six subscales can be selected.

APASO III Report   Screen ID: apaso-report-010

Report Type	Gender Comparison Report	

Year: 2022-23

Survey Title: Student: Psychological Health

Time Frame and Respondents:
● 2022-08-29 ~ 2022-09-28 [All]
○ 2022-09-23 ~ 2022-10-23 S1+S2[All]

Data Set ● Q-Score ○ P-Score

Scale	Subscale	No. of items
	☑ Affect (Positive Affect)	4
	☑ Affect (No Negative Affect)	4
	☑ Affect (No Fear of Failure)	3
	☑ Affect (No Anxiety, Depressive Symptoms)	4

6) Select the appropriate Respondent Group and click "View".

6.5.6 APASO-III report – Socioeconomic Status Report

1) Mouse over "Report Management".

2) Click "APASO-III Report".

3) Click "Socioeconomic Status Report".

4) Select the appropriate Year, Survey Title, Time Frame and Respondents.

5) Select the appropriate Data Set and Subscale. At most six subscales can be selected.

6) Select the appropriate Respondent Group and click "View".

Note:
To generate the Socioeconomic Status Report, all items in "Family: Socioeconomic Status" subscale must be answered.

6.6 School-based Survey Report

1) Mouse over "Report Management" and click "School-based Survey Report".
2) Input searching criteria, such as "Optional School Year" and "Mode", then click "Search".
3) Click "View" or "Export" next to the School-based Survey.

Chapter 7 Data Submission

7.1 About Data Submission

This module provides functions for extracting data from Stakeholder Survey and KPM Items. It shows all school years which are enabled in the "School Year Setting" and the status of each item of these school years. An operator can export data from any of these years into a package. The package should include KPM report and SHS report.

7.1.1 Before You Begin

To access this functional module, your account should possess a "Data Submission" privilege. Please consult your System Administrator to acquire the privilege if you cannot access the "Preparation for Submission".

7.1.2 Best Practices

KPM item with the status "Draft" will not be exported to the data package. You should ensure that the status of finalised KPM Items is changed to "Completed", "Partially Completed" or "No data at present". For example, there are many sub-items in KPM07. If you input and save some of the KLA lesson time percentages only, the status of KPM07 becomes "Partially Completed". The status will be changed to "Completed" until you have inputted (and validated) all these items.

7.2 Submitting Data File to EDB

The Data Submission module can pack data into a single file to facilitate data submission to the EDB. Survey Administrator may follow the steps below to prepare an ESDA data pack:

1) Mouse over "Data Submission" and then click "Preparation for Submission".
2) Check the checkbox(es) in the school year panel to select the data set you will submit to the EDB. Only data marked as "Completed" or "Partially Completed" will be exported to the data package.
3) Click "CLO Authorisation".

4) Enter Username and Password, click "Logon".

5) If you do not have a CLO account, you may retry after CLO account registration.

6) "Login is successful" will be prompted if CLO login is successful. Close the windows to continue the data submission.

7) Click the school year for the data to be submitted and click "Direct Send to EDB".

8) If you are planning to send a data pack to EDB by other means, such as sending a data pack by email, the steps are as follows:

(i)   Click "Send to EDB via other means" and save a copy as a backup.

(ii)   Click "Confirm" to submit data.
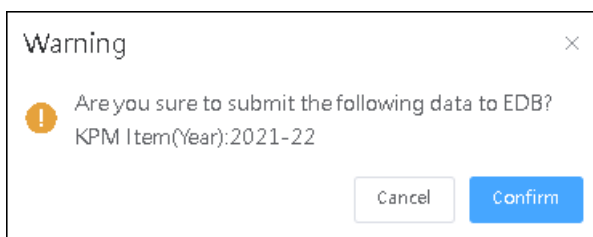
(iii)   Click "Yes" to backup data.
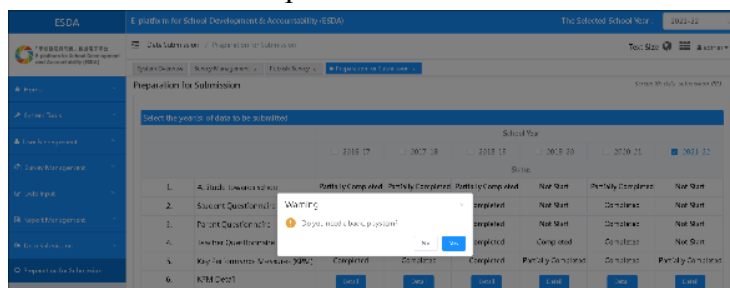
> *Note:*
>   The system will automatically run the KPM item checking to the selected year(s). If invalid KPM data are found, a warning message will be prompted. The Survey Administrator has to correct these values before you can continue.

7.3 Retrieving Data Submission Status

Whenever schools submit ESDA data to the EDB, the system will retrieve the confirmation status of the submitted data package through the version control module.

Chapter 8 School-based Survey Management

8.1 About School-based Survey Management

This module provides functions for "Manage School-based Survey" and "Manage School-based Survey Items".

8.1.1 Before You Begin

To access this functional module, your account should possess "School-based Survey Management" privilege. Please consult your System Administrator to acquire the privilege if you cannot access the "School-based Survey Management".

8.2 Manage School-based Survey

Survey Administrator can use "School-based Survey Management" to manage all school-based survey. To enter the "School-based Survey Management", mouse over the "School-based Survey Management" and click "Manage School-based Survey".

8.2.1   Create New Survey

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Check whether the required survey exists in the system.

3) Click "Add" to add a new survey.

4) In "Add School-based Survey" page:

- Input all the fields of survey information.
- Click "Save" to save the survey setting

8.2.2 View Survey

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Click "View" next to the survey.

8.2.3 Edit Survey

1) Mouse over "School-based Survey Management" and then click "School-based Survey".

2) Click "Edit" of the survey to modify the Title and Objective of the survey.

3) Input the data to be modified and click "Save" to save the settings.

8.2.4 Delete Survey

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Click "Delete" next to the survey.

8.2.5 Select Question

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Click "Select Question" of the survey to link the questions.

3) Input the searching criteria, such as "Question Name" or "Question Type" and click "Search".

4) Select the survey questions and click "Confirm" to save the question setting. (Please create new question at "Mange School-based Survey Item" if new question is required.

8.2.6 Set Question Order

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Click "Set Question Order" next to the survey.

3) Use the mouse to drag the question to the desired order.

4) Click "Confirm" to save the setting.

8.2.7 Clone Survey

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey".

2) Click "Clone Survey" next to the survey to be cloned.

3) Select "Year" to be cloned to.

4) Click "Confirm" to complete the clone.

8.3 Manage School-based Survey Items

"Manage School-based Survey Items" module is used to manage survey items.

Note:

You can use Stem Question to manage the same type of questions.

8.3.1 Create Question Stem

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".

2) Click "Add" to create new question.

3) In "Add Question" page:
- Select "Y" for "Add Question Stem" and input question content.
- Click "Confirm" to save the question setting.

For example:

4) Click "Add" to create a new question. Select "N" for "Add Question Stem" and input question content. Choose the Question Stem marked in Step 3 for "Question Stem".

5) Mouse over "School-based Survey Management" and then click "Manage School-based Survey". Click "View" to preview the survey design. Another question with the same question stem can be added by following Step 4 above, if needed.

8.3.2 Create General Question

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".

2) Click "Add" to create a new question.

3) In "Add Question" page:

- Select "N" for "Add Question Stem" and select the appropriate Question Stem.

- Input question content
- Click "Confirm" to save the question setting.

8.3.3 Edit Question

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".

2) Input searching criteria, such as "Question Name", "Questionnaire Title", "Assignment Status" and click "Search".

3) Click "Edit" next to the question to be modified.

4) Input the question information and click "Confirm" to save the setting.

8.3.4 Delete Question

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".

2) Input searching criteria, such as "Question Name", "Questionnaire Title", "Assignment Status" and click "Search".

3) Select the question to be deleted and click "Delete".

4) Click "Confirm" to confirm the deletion.

8.3.5 Download File Template

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".

2) Click "File Template" to download the Excel file template for importing questions.

3) Click "Save" to save the file to your computer.

行 Column	題型 / 內容	Question Type / Content	代號 Symbol
A	單選題 (4 選 1)	Multiple Choice Question (1 out of 4)	F
	單選題 (5 選 1)	Multiple Choice Question (1 out of 5)	G
	多選題	Multiple Answers Question	B
	填空題	Fill-in-the-blank Question	C
	問答題	Text Area	D
B	英文題目	Question Title in English	填寫題目內容 Input question

C	中文題目	Question Tile in Chinese	填寫題目內容 Input question
D	題目次序	Question Order	1, 2, 3 …
E	是否必答	Mandatory	如屬必答，請填"Y"；否則，請填"N" If yes, please fill in "Y"; otherwise, please fill in "N"

8.3.6 Batch Import Questions

Prerequisite:
Prepare an Excel file with the file template for importing questions according to the sample below.

1) Mouse over "School-based Survey Management" and then click "Manage School-based Survey Items".
2) Click "Batch Import" to impact question in batch.

3) In the "Import" page, click "Choose File" to select the file.
4) Click "Import" to add questions.

Example Using the Excel file template to import questions for different subjects

Schools may use the Excel file template to upload all questions for the same or similar surveys designed for different subjects/groups. Schools can edit individual questions via the interface, when necessary, and then set the surveys for different subjects/groups by selecting the appropriate questions. Schools may refer to the following steps.

1) To download the Excel file template and input the required questions for different subjects according to Section 8.3.4.

	A	B	C	D	E
1	Question Type	Question Title (English)	Question Title (Chinese)	Question Order	Mandatory
2	F	Qu 1 - Chinese Language	問題1 - 中文科	1	N
3	F	Qu 2 - Chinese Language	問題2 - 中文科	2	N
4	F	Qu 3 - Chinese Language	問題3 - 中文科	3	N
5	F	Qu 1 - English Language	問題1 - 英文科	1	N
6	F	Qu 2 - English Language	問題2 - 英文科	2	N
7	F	Qu 3 - English Language	問題3 - 英文科	3	N
8	F	Qu 1 - Mathematics	問題1 - 數學科	1	N
9	F	Qu 2 - Mathematics	問題2 - 數學科	2	N
10	F	Qu 3 - Mathematics	問題3 - 數學科	3	N

2) To import the questions according to Section 8.3.5, the system will show all questions after importing successfully. Schools may edit the questions according to Section 8.3.2, when necessary.

3) To set the survey for different subjects according to Section 8.2.1 Create New Survey and Section 8.2.5 Select Question.

School-based Survey-School-based Survey - Chinese Language

The questionnaire was conducted anonymously.

	Item	Strongly Disagree	Disagree	Agree	Strongly Agree
1.	Qu 1 - Chinese Language	○	○	○	○
2.	Qu 2 - Chinese Language	○	○	○	○
3.	Qu 3 - Chinese Language	○	○	○	○

4) To publish the related school-based survey according to Section 4.2.10.

> **Note:**
>
> *Each question can only be assigned to one survey. Schools may clone the related survey if different subjects/groups use some identical questions (for details, please refer to Section 8.2.7 Clone Survey). Then, delete the inappropriate questions and add other questions for preparing different surveys.*

Appendix 1 Setup ESDA to Use Other Port

The ESDA system uses the "Port 443" by default. If the server has used the "Port 443" for other purposes, System Administrator can follow the steps below to set ESDA to use another port.

1) Follow the steps in Chapter 1 to install ESDA.

2) Edit Apache Tomcat configuration file (e.g. C:\esda_new\Apache_Tomcat_9.0\conf\server.xml), change the "Port 443" to other port (e.g. 8443).

3) Restart Apache Tomcat server.

4) Follow the steps in Section 1.2.3 to test the system with the new port (e.g. https://127.0.0.1:8443/school).

Appendix 2 Install ESDA to Other Windows System

System Administrator may follow the steps in Section 1.2 – 1.4 to install, test, and set up ESDA on other Windows platform systems (except Windows Server 2016).

1) **License Issues on Installation of ESDA to Windows Workstation**
   （including Windows 10）

According to the information from Microsoft, schools are reminded that the maximum numbers of concurrent access to the workstation computers for Internet Information Services are as follows:

Microsoft Windows Platform	Max device connections
Windows 10	20

For details, please refer to the End User License Agreement (EULA) which comes with the product accordingly or from the following website:
https://www.microsoft.com/en-us/Useterms.

2) **Notes to Installation on Windows Server 2016**

Windows Server 2016 is more secure. Modifying files in the C:\Program Files directory is restricted. Therefore, installing the system to other directories is recommended, e.g. D:\esda or default C:\esda.

3) **Notes to Installation on Windows Server 2016 R2（64-bit）**

Windows Server 2016 R2 is a 64-bit system. ESDA5.0.x has also been tested under this version.

Appendix 3 Cross-Platform Migration Procedures

1) Login system as System Administrator.

2) In the left directory, click "System Tools" and then click "System Backup". Click "Manual Backup" and the system will generate a backup file to the backup file directory.

> **Note:**
> ・ System Administrator, please move the backup file to a safe place.

System Restore Procedures

1) Unzip the backup file.
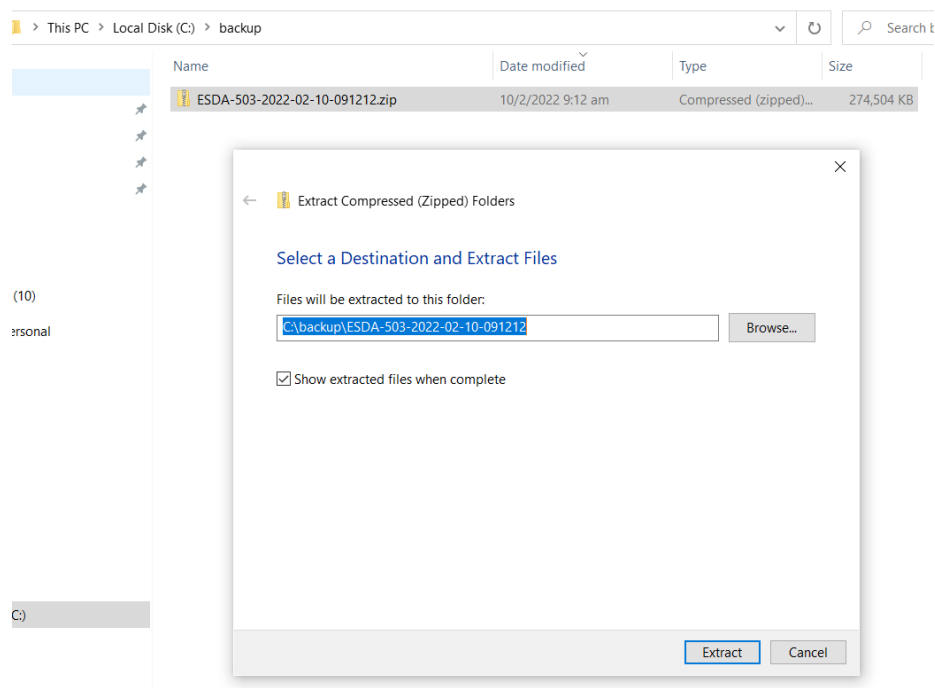
2) Run Restore Tool.exe as Administrator.
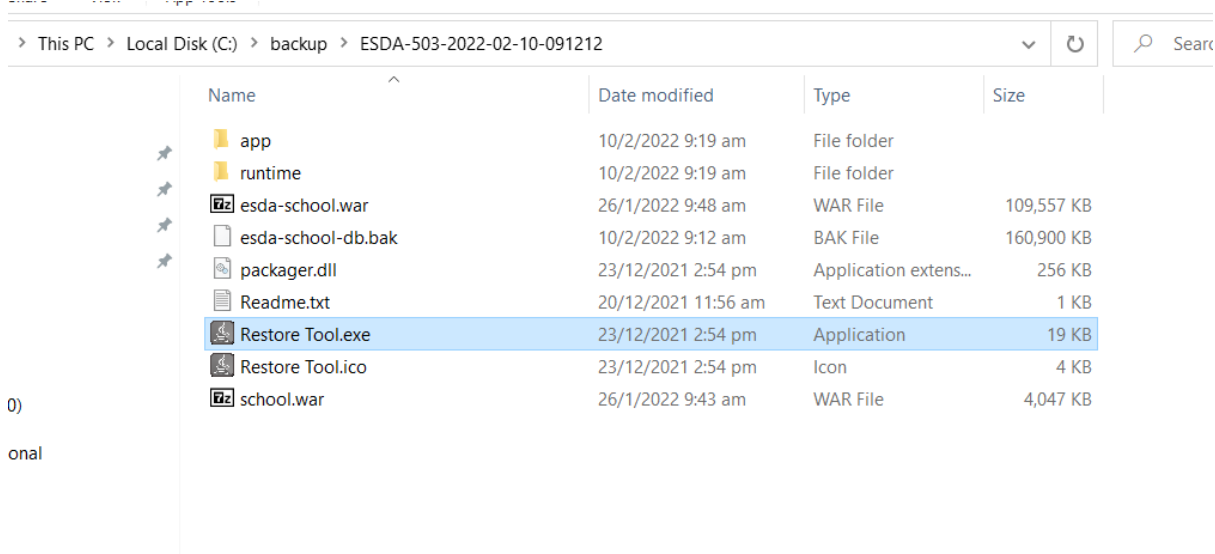
3) The data recovery will be started.
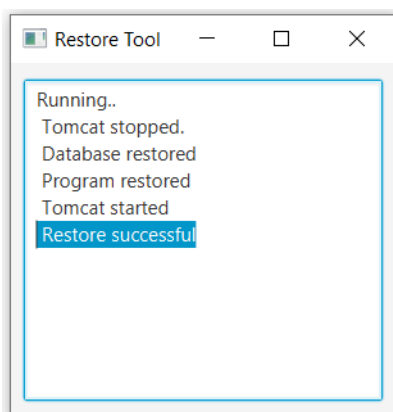
Note:

· If error is found during the restoration, please send the log file (\app\log.txt) to the Indicators Section of EDB.
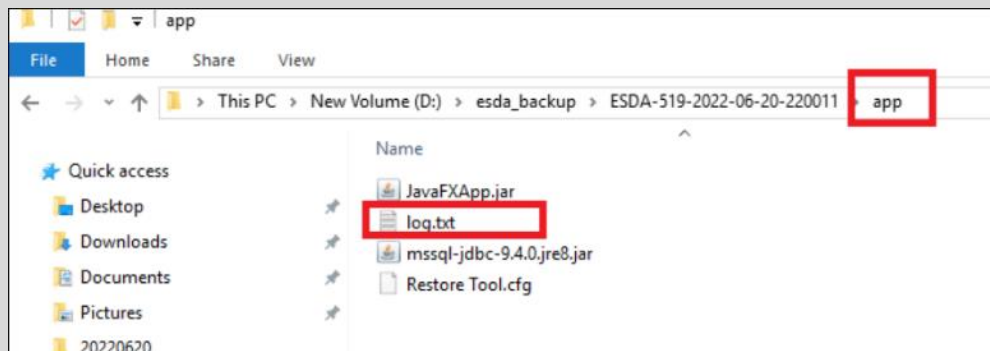
Appendix 4 ESDA File Structures and Software Components

ESDA includes the following components:

1) **Windows Installation**

Components	Version	Default Path
Tomcat	9.0.x	C:\esda_new\apache-tomcat-9.0.45
MSSQL	2019	C:\Program Files\Microsoft SQL Server
ESDA	5.0.x	C:\esda_new
OpenJDK	8	C:\esda_new\apache-tomcat-9.0.45

* This is the default installation path of ESDA system; other paths below are relative to this.

Appendix 5 Uninstalling ESDA

System Administrator may follow the procedures below to uninstall ESDA.

1) Open Control Panel and click "Remove Programs".
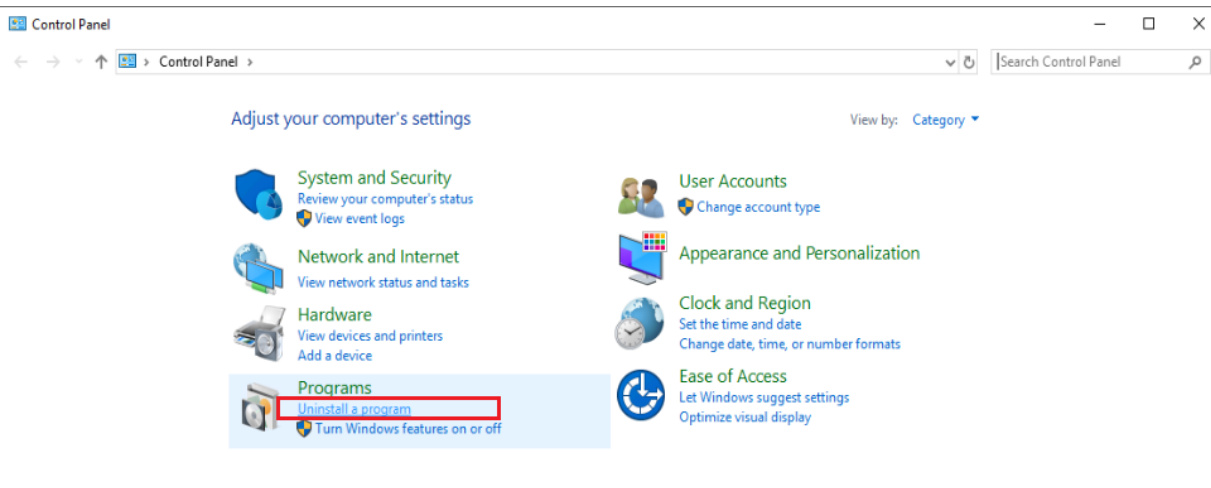
2) Select "ESDA version 5.0.x", click "Uninstall".
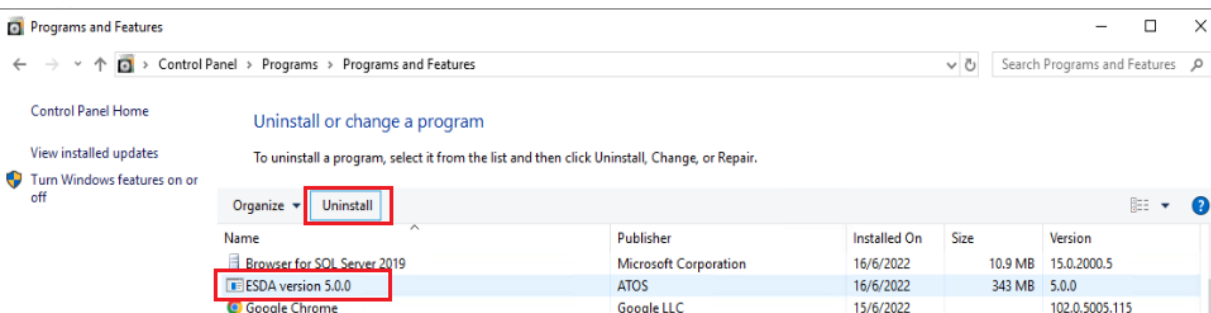
3) Click "Yes" to confirm uninstalling ESDA.
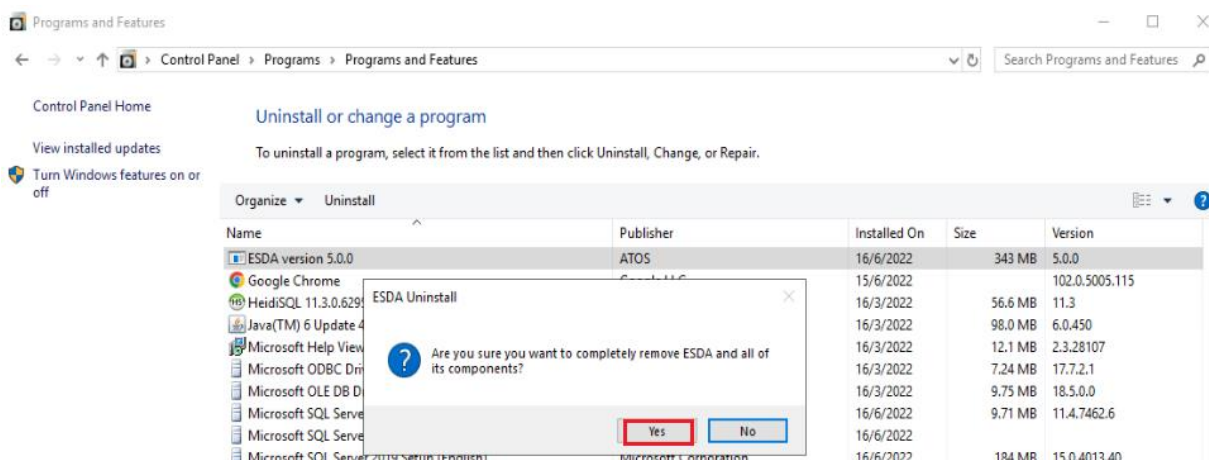
Appendix 6 User Account Integration with Other System(s)

A) Planning for the Integration

System Administrator can use the User Account Integration (UAI) feature to integrate any system, including OpenLDAP, Active Directory, or any database with ESDA user accounts. Basically, TCP/IP is used for the connection between systems. In order to achieve system integration, a connection between ESDA and the main system must be in place.

System Administrator needs to add a "custom-authentication.jar" program file to "[ESDA]\Apache_Tomcat_9.0\webapps\esda-school\WEB-INFlib" to activate "User Account Integration (UAI)".

When set up is completed, System Administrator can start pairing ESDA with the user accounts of the main system. System Administrator can perform a simple test by selecting a user account (e.g. admin) for the "User Account Consolidation (UAI) (the user account must exist in both ESDA and main system). Then use the ESDA account (e.g. admin) and the account's password in the main system to login to ESDA.
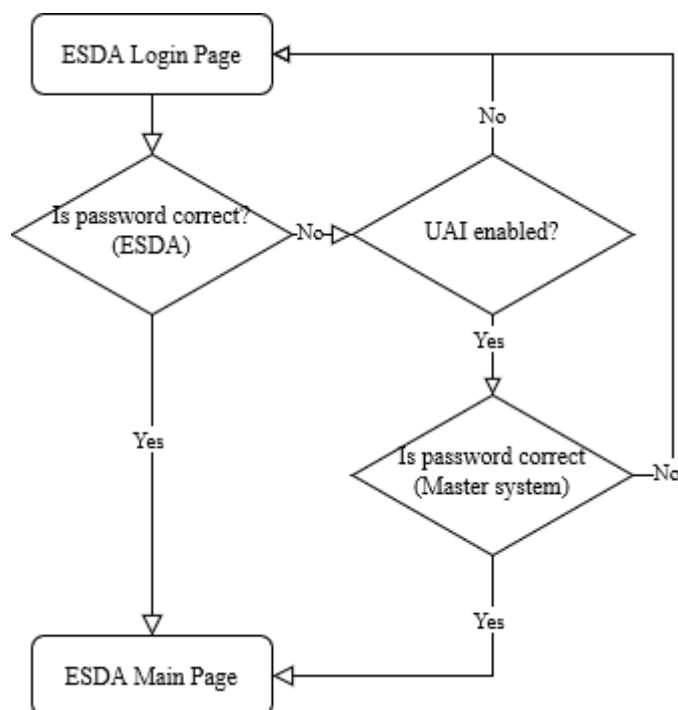
B) Configuring ESDA for the Integration

System Administrator should follow the following steps to activate User Account Integration (UAI):
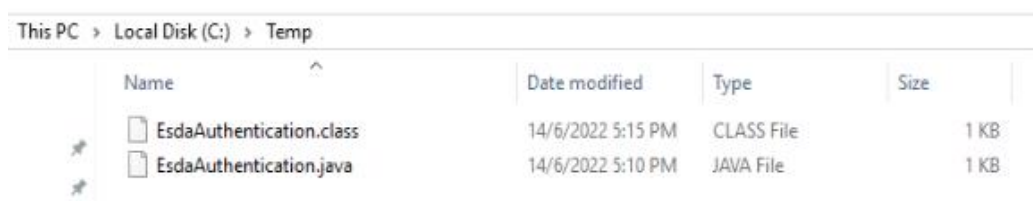
1) Build a Java source code file EsdaAuthentication.java at the server, e.g. C:\Temp\EsdaAuthentication.java. User needs to write the account authentication program in a source code file with the following format. When "User Account Integration (UAI)" is launched, the following program will be executed as the account authentication standard.

```
package hk.edb;

import hk.esda.auth.OpenAuthentication;

public class EsdaAuthentication implements OpenAuthentication {

    public boolean authentication(String loginName, String password, String remoteId){

        // Write your code here to validate the user account with the master system

        // Return true if the authentication is ok; otherwise, return false.

    }

}
```

2) Open "Command Prompt", use javac program tool to compile the .java file with ESDA "edb-common-auth-1.0-SNAPSHOT.jar".

```
"%JAVA_HOME%\bin\javac" -cp "C:\esda_new\Apache_Tomcat_9.0\webapps\esda-school\WEB-INF\lib\edb-common-auth-1.0-SNAPSHOT.jar" C:\Temp\EsdaAuthentication.java
```
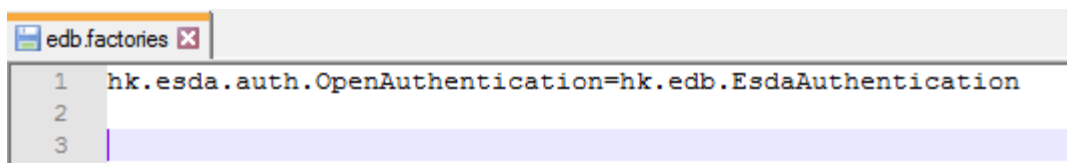
3) EsdaAuthentication.class file will be generated at C:\Temp\.

4) Create edb.factories file at server, e.g. C:\Temp\edb.factories, write the following program to the file.

```
hk.esda.auth.OpenAuthentication=hk.edb.EsdaAuthentication
```

5) Create a folder "Custom_Authentication", e.g. C:\Temp\Custom_Authentication, and copy the EsdaAuthentication.class and edb.factories files to the folder "Custom_Authentication".

Custom_Authentication\hk\edb\EsdaAuthentication.class

Custom_Authentication\META-INF\edb.factories
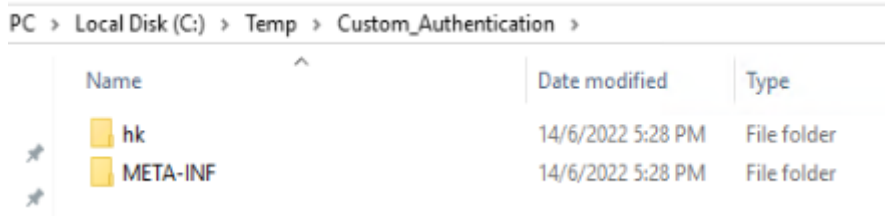
6) Open "Command Prompt" and change to folder "Custom_Authentication".   Use jar tool to setup jar program.

cd C:\Temp\Custom_Authentication

"%JAVA_HOME%\bin\jar" cvf custom-authentication.jar META-INF/ hk/
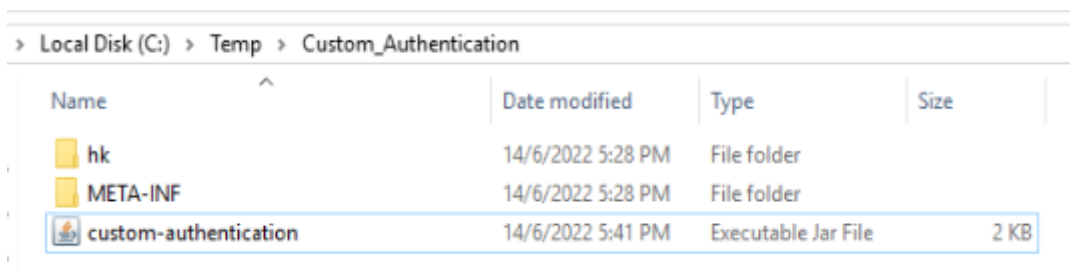
7) Copy the custom-authentication.jar to folder "C:\esda_new\Apache_Tomcat_9.0\esda_open_authentication folder".
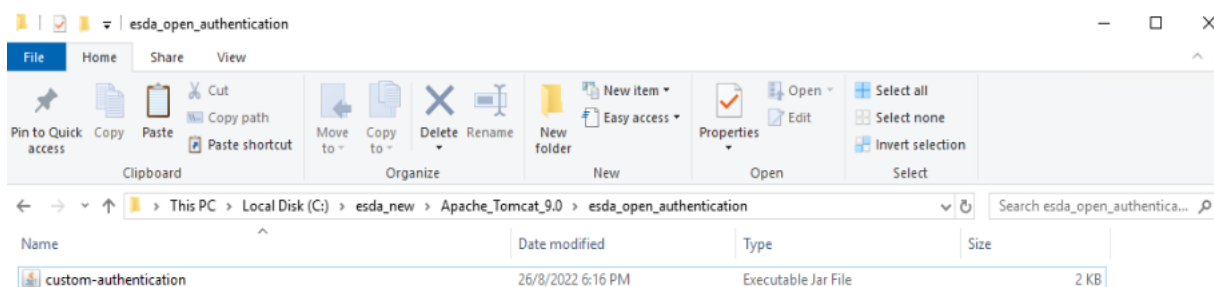
8) Restart Apache Tomcat server.
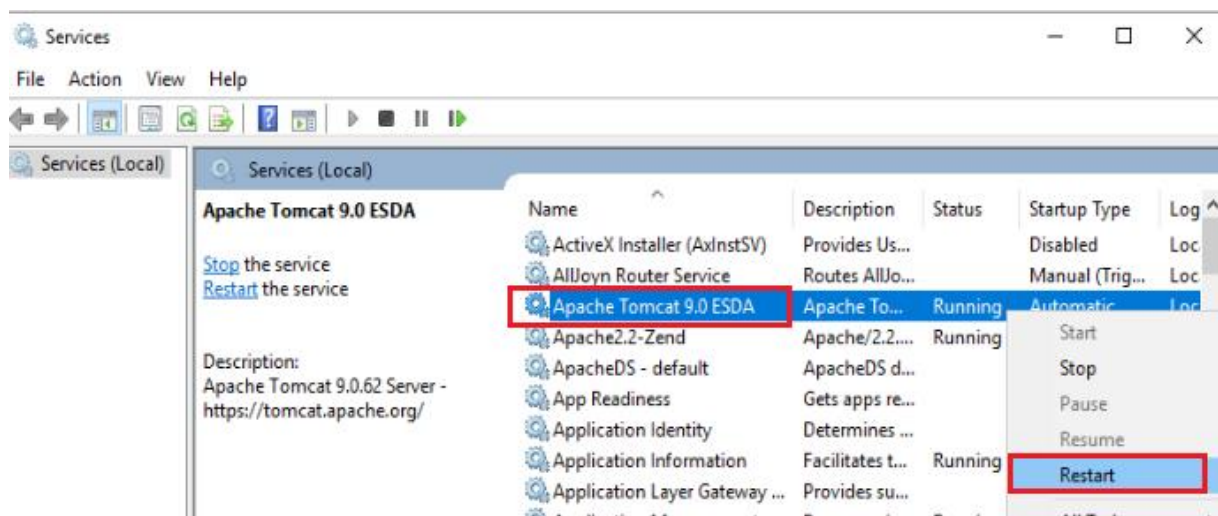
C) Sample UAI coding

Below is an example for LDAP server:

```
// package name should be same as the one defined in edb.factories file
package hk.edb;


import hk.esda.auth.OpenAuthentication;
// For LDAP implementation
import java.util.Hashtable;
import javax.naming.AuthenticationException;
import javax.naming.Context;
import javax.naming.directory.DirContext;
import javax.naming.directory.InitialDirContext;


// class name should be same as the one defined in edb.factories file
public class EsdaAuthentication implements OpenAuthentication {
      // authentication method
      // The function name and function definition MUST NOT be changed.
      // loginName -> login id for login to remote system
      // password -> password key-in in login page
      // remoteId -> not require to use
      // return boolean, true for valid otherwise return false
      public boolean authentication(String loginName, String password, String remoteId){
            // This is a sample for LDAP.
```

```
        // The following configurations should be updated for your environment
        String url = "ldap://127.0.0.1:389";
        String FullloginName = "CN=" + loginName + ",DC=esda,DC=test";


        DirContext ctx=null;
        Hashtable<String,String> hash = new Hashtable<String,String>();
         hash.put(Context.INITIAL_CONTEXT_FACTORY,"com.sun.jndi.ldap.LdapCtxFactory");
        hash.put(Context.SECURITY_AUTHENTICATION, "simple");
        hash.put(Context.PROVIDER_URL, url); // URL of LDAP
        hash.put(Context.SECURITY_PRINCIPAL, fullLoginName); // Login Name of LDAP
        hash.put(Context.SECURITY_CREDENTIALS, password); // Password
        hash.put("com.sun.jndi.ldap.connect.timeout", "5000"); // Timeout - 5s



        try {
                ctx = new InitialDirContext(hash);
                System.out.println("Authentication success");
                return true;
        } catch (AuthenticationException e) {
                System.out.println("Authentication fail");
                e.printStackTrace();
        } catch (Exception e) {
                e.printStackTrace();
        } finally{
                if(null!=ctx){
                        try {
                                ctx.close();
                                ctx=null;
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        }
        return false;
    }
}
```
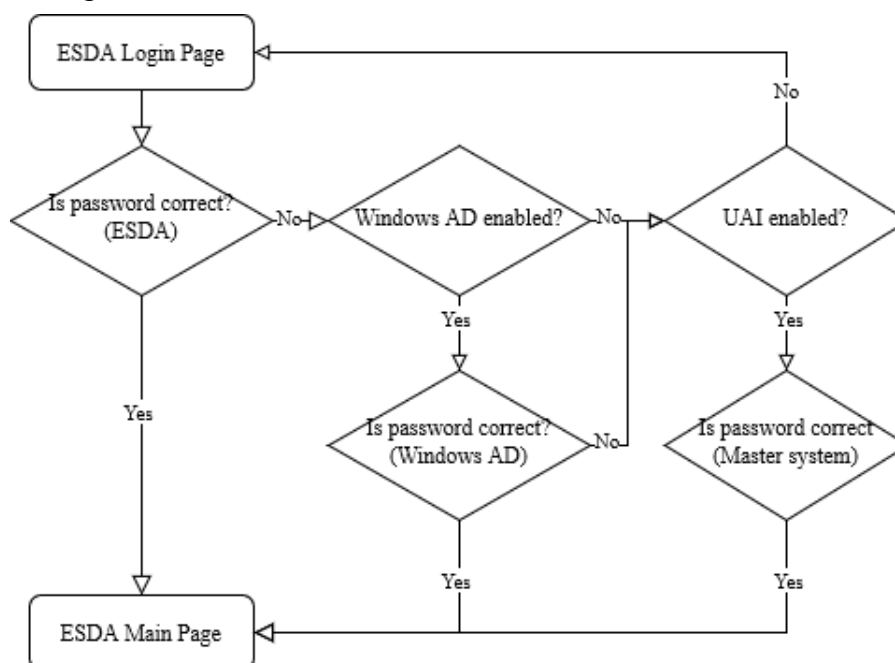
D) Integration with Windows Active Directory

In additional to the "UAI with other system(s)" mentioned in the above sections, ESDA supports authentication with Windows Active Directory. That is, the ESDA server will connect the Active Directory server for password validation.

For the integration with Windows Active Directory, System Administrator needs to update the Windows AD setting at ESDA (System Setting > Advanced System Settings), enter Windows ad IP address (e.g. ldap://192.168.200.199:389) and domain name (e.g. @esda.schoola.edu).
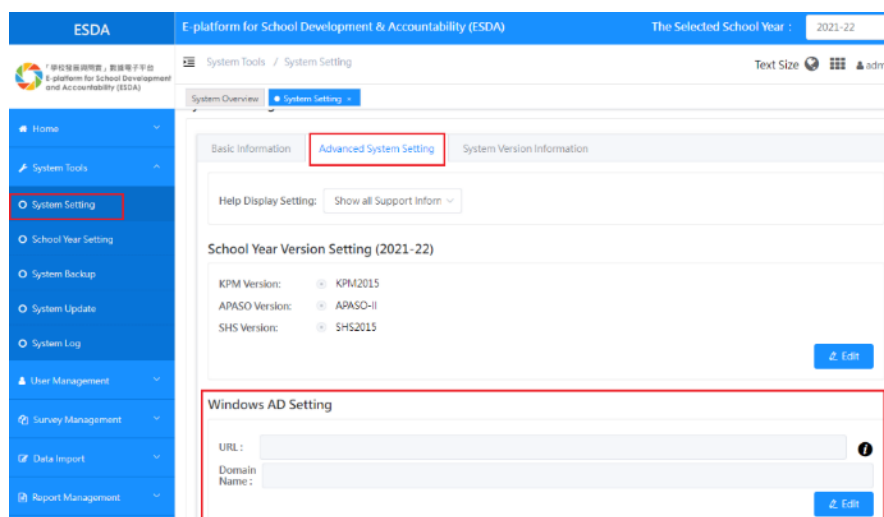
The authentication logic is as follows:

-- End --