REPERTOIRE 2022 SETUP GUIDE

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Repertoire 2022 Setup Guide

This document describes the setup of the Repertoire 2022 software and its pre-requisites, as well as creating a simple dashboard.

Refer to the following websites for more information:

- https://docs.elixirtech.com/Repertoire/2022/index.html
- www.elixirtech.com

Do note that this guide also works for Ambience software suite. To use for Ambience software, change all instances of “repertoire” in commands to “ambience” and change the port to 1740.

Another point to note for Ambience software is that it uses MongoDB, which is not mentioned here.

1. Pre-requisites

The following are the pre-requisites for Repertoire 2022 software suite:

- Java 11 (including OpenJDK)
- Repertoire 2022

2. Setup Repertoire 2022

2.1. Installation

2.1.1. Install Dependencies – Java

Install Java 11

You need to download and install any Java 11 (including Open JDK) or higher for Repertoire 2022.

2.1.2. Install Repertoire 2022

Contact our representatives for the Repertoire 2022 suite and a licence. The Repertoire 2022 comes in a form of a zip file.

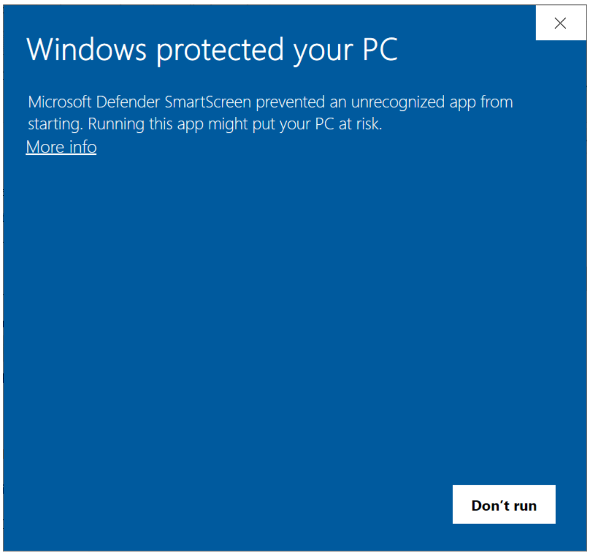
To install Repertoire 2022, extract the zip file to the desired location.

2.2. Repertoire 2022

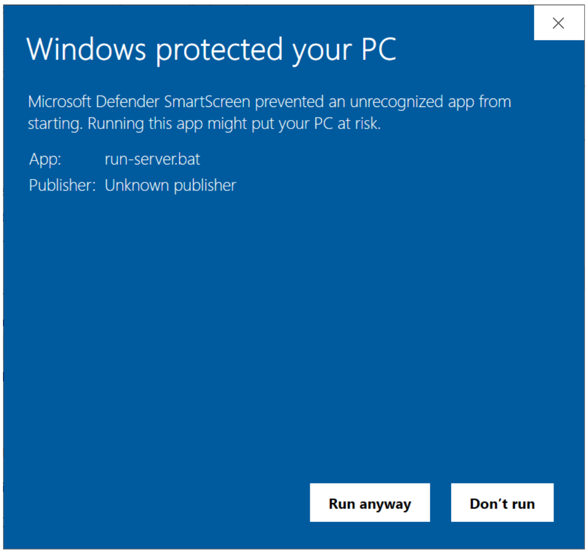
2.2.1. Launch Repertoire 2022 on Windows

Use the following steps to launch Repertoire 2022 on Windows:

1. Go to Repertoire root directory, then to the “bin” folder.
2. To launch Repertoire 2022:
   - Double click on the “run-server.bat” file for Windows
   - Execute “run-server” in terminal window
3. For Windows, if this is the first time you launch Repertoire 2022, a dialog will appear.

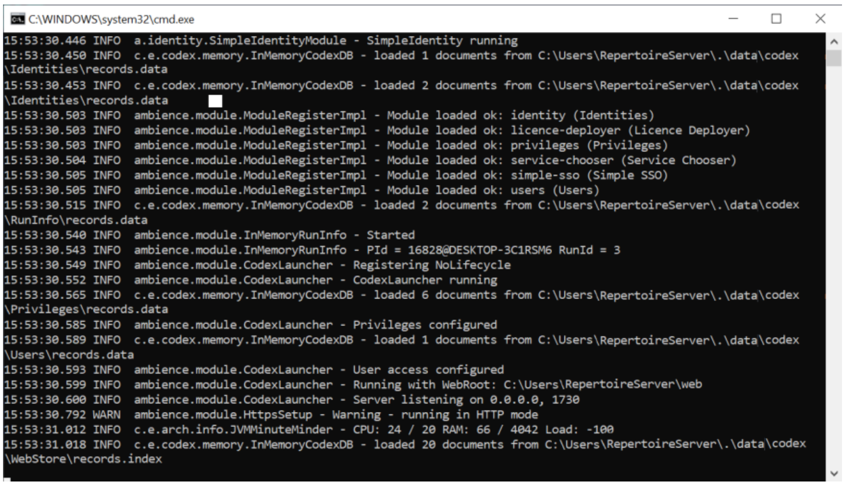


In the dialog box, click on “More Info”.



Click on “Run anyway” button at the bottom.

4. A command window will appear. DO NOT close this command window.



5. Check the command window for any error messages. After a few seconds, you will see a message "ambience.module.CodexLauncher – Server listening on 0.0.0.0, 1730".

6. Open a browser, key in "localhost:1730" on the address bar and hit the "Enter" key.

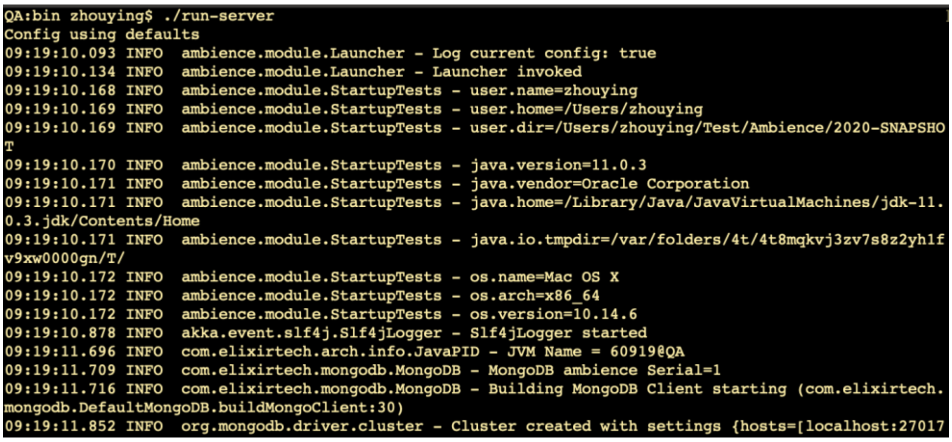
7. The Elixir Repertoire login page will appear.

2.2.2. Launch Repertoire 2022 on Ubuntu

Use the following steps to launch Repertoire 2022 on Ubuntu:

1. In the terminal window, navigate to the Repertoire root directory, then to the “bin” folder.
2. In the terminal window, execute the command to launch Repertoire:

```
./run-server
```



```
QA:bin zhouying$ ./run-server
Config using defaults
09:19:10.093 INFO  ambience.module.Launcher - Log current config: true
09:19:10.134 INFO  ambience.module.Launcher - Launcher invoked
09:19:10.168 INFO  ambience.module.StartupTests - user.name=zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.home=/Users/zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.dir=/Users/zhouying/Test/Ambience/2020-SNAPSHO
T
09:19:10.170 INFO  ambience.module.StartupTests - java.version=11.0.3
09:19:10.171 INFO  ambience.module.StartupTests - java.vendor=Oracle Corporation
09:19:10.171 INFO  ambience.module.StartupTests - java.home=/Library/Java/JavaVirtualMachines/jdk-11.
0.3.jdk/Contents/Home
09:19:10.171 INFO  ambience.module.StartupTests - java.io.tmpdir=/var/folders/4t/4t8mqkvj3zv7s8z2yh1f
v9xw0000gn/T/
09:19:10.172 INFO  ambience.module.StartupTests - os.name=Mac OS X
09:19:10.172 INFO  ambience.module.StartupTests - os.arch=x86_64
09:19:10.172 INFO  ambience.module.StartupTests - os.version=10.14.6
09:19:10.878 INFO  akka.event.slf4j.Slf4jLogger - Slf4jLogger started
09:19:11.696 INFO  com.elixirtech.arch.info.JavaPID - JVM Name = 60919@QA
09:19:11.709 INFO  com.elixirtech.mongodb.MongoDB - MongoDB ambience Serial=1
09:19:11.716 INFO  com.elixirtech.mongodb.MongoDB - Building MongoDB Client starting (com.elixirtech.
mongodb.DefaultMongoDB.buildMongoClient:30)
09:19:11.852 INFO  org.mongodb.driver.cluster - Cluster created with settings {hosts=[localhost:27017
```

3. Open a browser, key in “localhost:1730” on the address bar and hit the “Enter” key.
4. The Elixir Repertoire login page will appear.

2.2.3. Launch Repertoire 2022 on macOS

Use the following steps to launch Repertoire 2022 on macOS:

1. In the terminal window, navigate to the Repertoire root directory, then to the “bin” folder.
2. In the terminal window, execute the command

   `./run-server`

```
QA:bin zhouying$ ./run-server
Config using defaults
09:19:10.093 INFO  ambience.module.Launcher - Log current config: true
09:19:10.134 INFO  ambience.module.Launcher - Launcher invoked
09:19:10.168 INFO  ambience.module.StartupTests - user.name=zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.home=/Users/zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.dir=/Users/zhouying/Test/Ambience/2020-SNAPSHO
T
09:19:10.170 INFO  ambience.module.StartupTests - java.version=11.0.3
09:19:10.171 INFO  ambience.module.StartupTests - java.vendor=Oracle Corporation
09:19:10.171 INFO  ambience.module.StartupTests - java.home=/Library/Java/JavaVirtualMachines/jdk-11.
0.3.jdk/Contents/Home
09:19:10.171 INFO  ambience.module.StartupTests - java.io.tmpdir=/var/folders/4t/4t8mqkvj3zv7s8z2yh1f
v9xw0000gn/T/
09:19:10.172 INFO  ambience.module.StartupTests - os.name=Mac OS X
09:19:10.172 INFO  ambience.module.StartupTests - os.arch=x86_64
09:19:10.172 INFO  ambience.module.StartupTests - os.version=10.14.6
09:19:10.878 INFO  akka.event.slf4j.Slf4jLogger - Slf4jLogger started
09:19:11.696 INFO  com.elixirtech.arch.info.JavaPID - JVM Name = 60919@QA
09:19:11.709 INFO  com.elixirtech.mongodb.MongoDB - MongoDB ambience Serial=1
09:19:11.716 INFO  com.elixirtech.mongodb.MongoDB - Building MongoDB Client starting (com.elixirtech.
mongodb.DefaultMongoDB.buildMongoClient:30)
09:19:11.852 INFO  org.mongodb.driver.cluster - Cluster created with settings {hosts=[localhost:27017
```

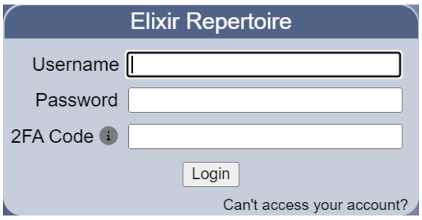
3. Open a browser, key in “localhost:1730” on the address bar and hit the “Enter” key.
4. The Elixir Repertoire login page will appear.

2.2.4. Login

By default, the Repertoire has a super user “admin”.

Use the following steps to log into Repertoire 2022:

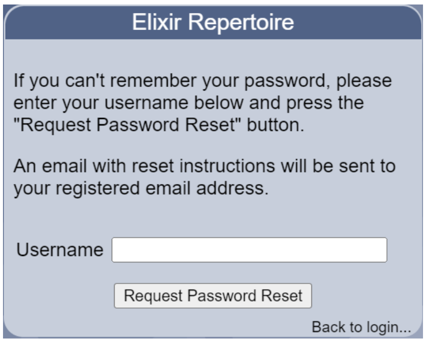
1. After launching Repertoire 2022, the log-in page will appear.
2. To log into Repertoire 2022, key in the following:
   - Username: admin
   - Password: sa
   - 2FA Code: 6-digit code



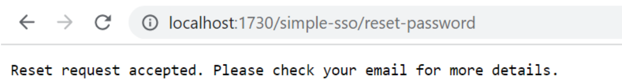
If 2FA has not been enabled, the 2FA Code will not appear in the log-in page. Refer to the Ambience-Repertoire Admin Guide on how to enable 2FA.

If the user has not set up the 2FA yet, leaves the 2FA Code blank.

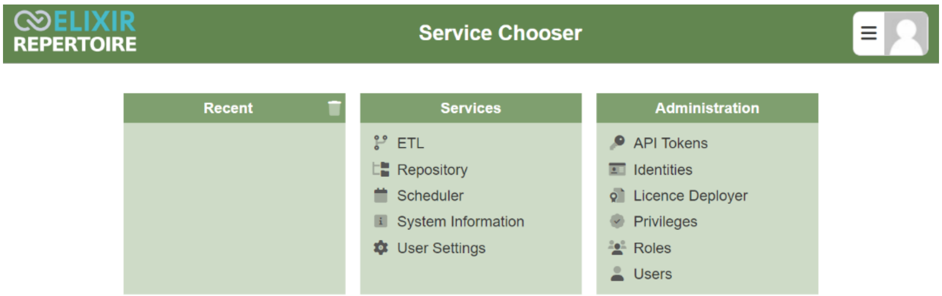
If the user has forgotten the password, click on the “Can’t access your account?” link at the bottom right. A dialog box will appear, prompting the user to enter the user’s username.



Click on the “Request Password Reset” button and the new password will be sent to the user’s email along with a notification. To abort this action, click on the “Back to login…” link at the bottom right.



3. Click on the “Login” button. Upon login, the “Service Chooser” screen will appear with the list of available modules in the “Services” and “Administration” panels.



4. If the licence in Repertoire 2022 is the minimal licence, the “Services“ and “Administration” panels will display the set of modules that are allowed by the minimal licence. Contact our representatives for the new licence if the current licence expires.

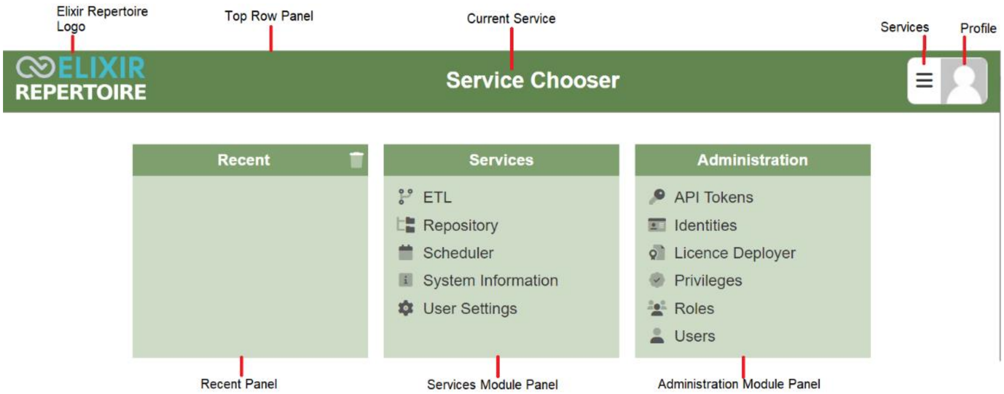
2.2.5. Logout

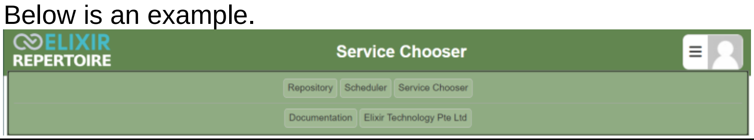
To log out of Repertoire 2022, click on the “Profile” icon on the upper right corner of the page. A dialog box will appear. Click on the “Sign out from Elixir Repertoire” portion to log out of Repertoire 2022.

2.2.6. Repertoire 2022 Interface

This section briefly describes the interface of the Repertoire 2022 “Service Chooser” page.

Upon login into Repertoire 2022, you will see the “Service Chooser” page. This page will display all the modules that are currently available.



Top Row Panel	Consists of three parts: • On the left – Elixir Repertoire logo • At the centre – Current service or module • On the right – Services and Profile icons
Services	When clicked, displays the most frequently used services, including the documentation of the Ambience. Below is an example. 
Profile	This icon displays the details of the user and allows user to log out of Repertoire suite.
Recent Panel	Lists all recently services used by the user. Clicking on the service will bring you to the service directly. You can remove the list by clicking on the “Delete” icon.
Services Panel	Lists all the Services modules available for the user. Clicking on any of the modules will bring you to the main page of the selected module.
Administration Panel	Lists all the Administration modules available for the user. Clicking on any of the modules will bring you to the main page of the selected module.

2.3. Deploy Licence

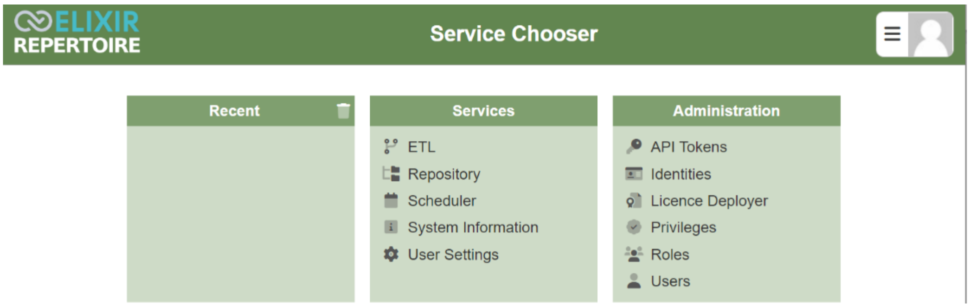
When the Repertoire 2022 is initially installed, it comes with a default licence. This default licence allows a minimal set of modules and does not have an expiration date.

To access to other modules in Repertoire 2022, a new licence needs to be imported into Repertoire 2022. This new licence has an expiration date and need to be replaced before the expiry or Repertoire will fall back onto the minimal set of modules.

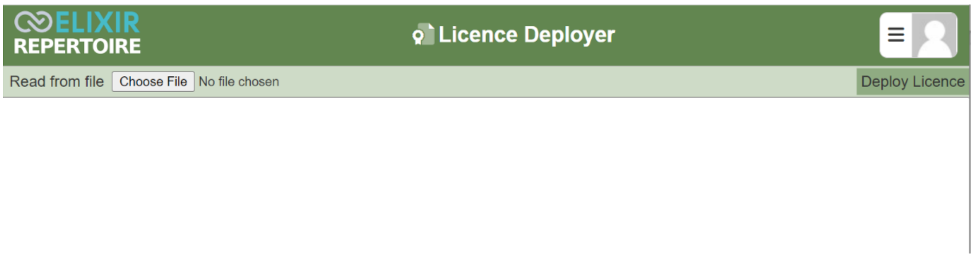
There are two methods to deploy the licence, either by using the Repertoire 2022 interface or by using the Ambience command line interface. This method is useful during setup as you can install the licence before starting the server, hence avoiding the need to stop and restart.

To deploy a licence using Repertoire 2022 interface:

1. From the "Service Chooser" page, select the "Licence Deployer" in the "Administration" panel. If Ambience is initially installed and logged in for the first time, step 2 will appear directly.



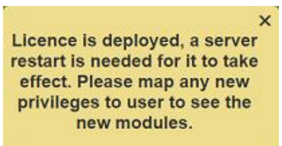
2. The "Licence Deployer" page will appear.



3. Click on the "Choose File" button and browse to the location of the licence file (*ElixirRepertoire.licence*). The content of the licence file will appear in the editor.

4. If the content is correct, click on the "Deploy Licence" button at the upper right corner of the page.

5. Upon successful upload, a message will appear.



6. After the licence has been deployed to the server. Restart the server for the licence to take effect.

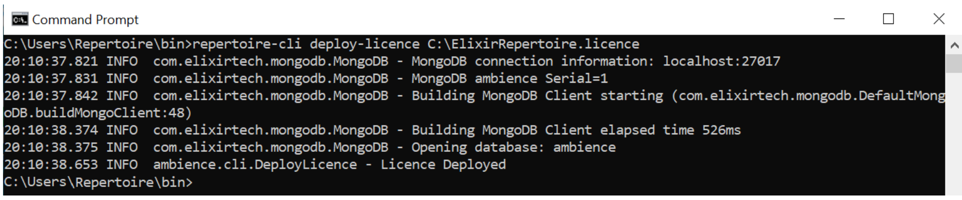
7. Ensure to map any new privileges to the desired users to see the new modules.

To deploy a licence using Repertoire command line interface:

1. Open a terminal window and navigate to the Repertoire 2022 main folder, then navigate to the “bin” folder.
2. In the command line, key in the following command:

```
repertoire-cli deploy-licence <path of ElixirRepertoire.licence
file>
```

3. The command line window will display messages indicating the successful deployment.



4. Restart the server to allow the new licence to take effect.

2.4. Report Generation

It is often required to generate reports, either an ad-hoc report or a report at a particular day or time of the month, every month.

For both cases, the report can be generated via the Repository module, manually.

But to generate a report month after month manually can be tedious and a repetitive task. This job can be automated using ETL chainset and a scheduler.

The following sections describe how to generate a report manually and how to automate a report to run monthly.

2.5. Manual Report Generation

A report can be generated manually via the Repository module.

The Repository module stores files, such as DocX and RML report templates and datasources which are used in report generation.

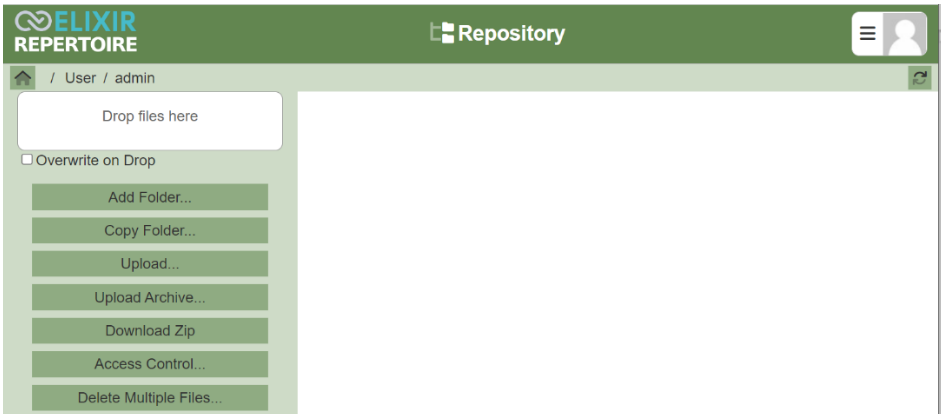
The following sections describes the above steps.

2.5.1. Upload Report Template and Datasource

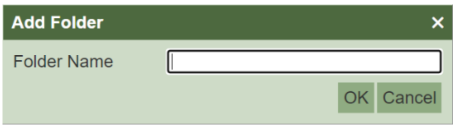
To generate a report, a report template (either a DocX or RML) file and a datasource are required.

Use the following steps to upload the required files onto the repository:

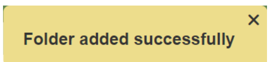
1. From the “Service Chooser” page, select “Repository” in the “Services” panel. The “Repository” page will appear.

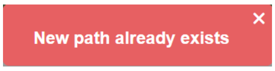


2. Navigate to the desired location in the repository.
3. If a new folder is required, click on the “Add Folder…” button on the left panel. The “Add Folder” dialog box will appear.



4. Key in a unique name for the new folder and click on the “OK” button.
5. A message will appear once the folder is added. If the name already exist, an error message will appear.



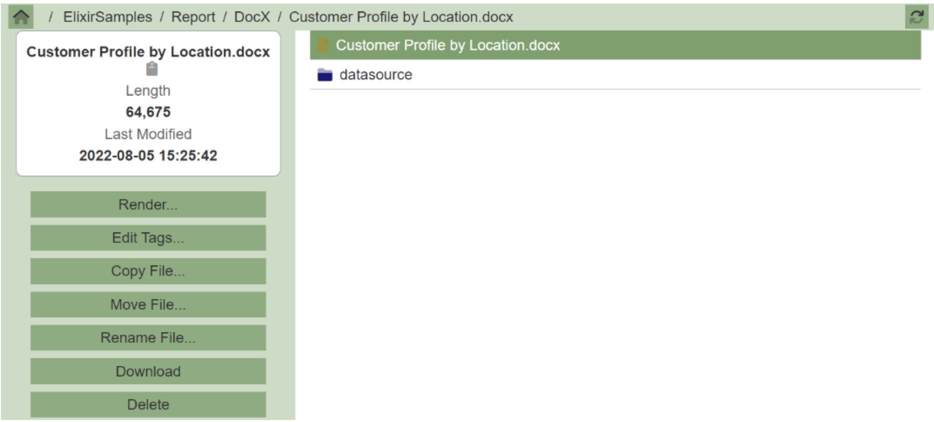


6. From the file explorer, select the desired file and drop the file onto the “Drop files here” box in the repository.
7. Once the file is deposited into the repository, it will appear in the Content Panel. Select the file and the available actions will appear in left panel.

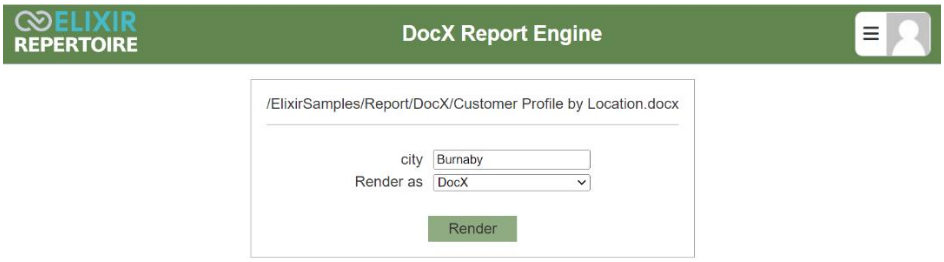
2.5.2. Render Reports

To generate a report manually using the repository, the following steps are required:

1. In the Repository module, navigate to the location of the report template.
2. Select the desired report template file.



3. On the left panel, click on the "Render" button to generate the report.
4. The DocX Report Engine page will appear.



   If a RML file is selected, the RML Report Engine page will appear.

5. Select the desired parameter and output format. Click on the "Render" button.
6. The report will be generated.

Canada			
Burnaby (Canada)			
CustomerID	Education	Birth Date	Gender
10185	Partial College	1973-04-22	M
9015	Bachelors Degree	1922-05-25	F
10016	High School Degree	1936-11-02	M
9649	Partial High School	1937-07-28	M
9128	Partial College	1930-01-23	F
9843	Bachelors Degree	1931-09-07	F
9650	Partial College	1924-05-15	F
9880	High School Degree	1922-09-23	F
9798	High School Degree	1977-04-07	M

2.6. Automatic Report Generation

It is beneficial for the reports to be generated automatically instead of being generated manually. This can avoid error and forgetting to generate the report.

To generate based on a schedule, the following steps are required:

1. Upload the required report template (DocX or RML) and datasource onto the Repository.
2. Create ETL chainset that calls the report template to generate the report.
3. Create calendars and trigger that will automatically generates the report.

The following sections describes the above steps.

2.6.1. Report Template and Datasource

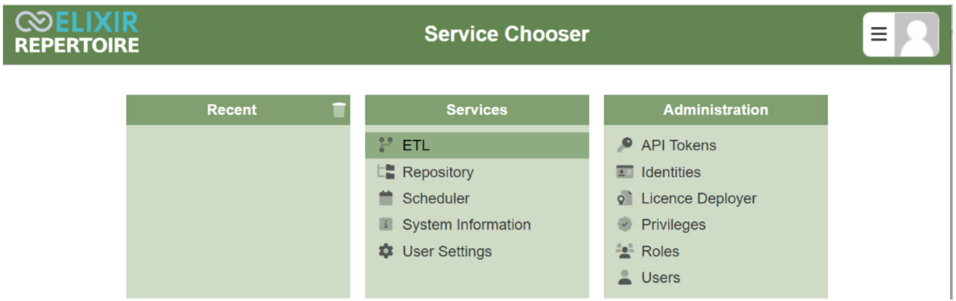
Before generating a report, the report template (either DocX or RML) file and the datasource must be present in the Repository module.

If they are not present, see Section 2.5.1 Upload Report Template and Datasource on how to upload the relevant files onto the repository.

2.6.2. Create ETL

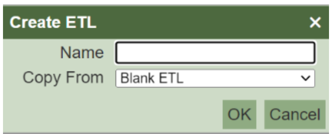
Use the following steps to create an ETL chainset that calls the report and generates an output file:

1. Click on the ☰ "Services" icon on the upper right corner of the page and select "Service Chooser". From the "Services" panel, select "ETL".



2. The "ETL" page will appear.

3. In the "ETL" page, click on the "Add" button on the upper right corner of the page. A "Create ETL" dialog box will appear.

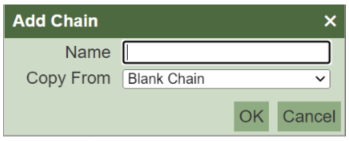


4. In the dialog box, key in and select the following:

   - “Name” field – Key in a name for the new ETL chainset
   - “Copy From” field – Selects to copy from existing ETL from drop-down list or a blank ETL
     (in this example, a blank ETL is selected)

5. Click on the “OK” button to create the new blank ETL and the ETL Designer page will appear.

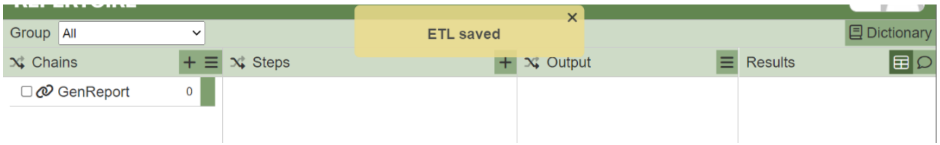
6. In “Chains” section, click on the “+” icon. The “Add” dialog box will appear.



7. In the dialog box, key in and select the following:

   - “Name” Field – Key in a name for the new
   - “Copy From” field – Selects an existing chain from the drop-down list or a blank chain (in this example, select “Blank Chain”)

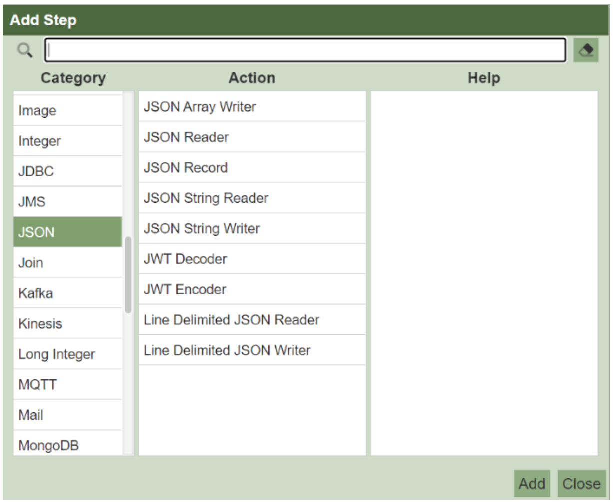
8. Click on the “OK” button to save the changes. A message will appear upon successful saving the ETL.



9. In this example, three steps are required:

   a) First step – Calls the Ambience RML engine to generate the report
   b) Second step – Defines the path of the report generated
   c) Third step – Places a marker to indicate the ETL chain is usable directly by authenticated HTTP calls

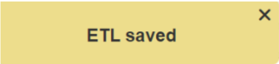
10. Click on the “+” icon in the “Steps” panel. The “Add Step” dialog box will appear.



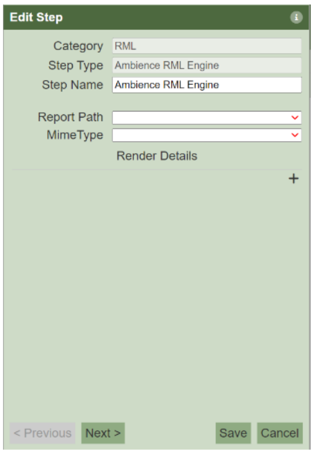
11. Search and add the following ETL steps in the following category:

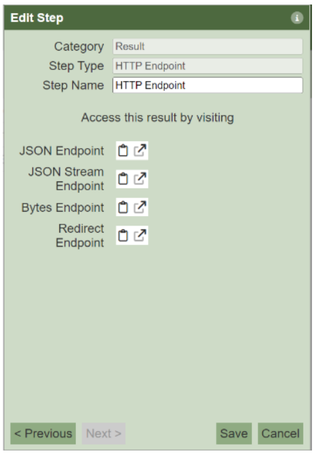
Category	Step Name
RML	Ambience RML Engine
File	File Writer
Result	HTTP Endpoint

12. Add first ETL step and click on the "Add" button. The ETL step will be added into the "Steps" panel. Repeat the other two steps and click on the "Close" button to close the dialog box. A message will appear upon successful saving the ETL.



13. The "Edit Step" dialog box will appear.





14. For the first ETL step, select the desired value for the following parameters:
    - "Report Path" field – Selects the report template in the repository from the drop-down list
    - "Mime Type" field – Selects the output report file format
15. To go to the next ETL, click on the "Next >" button at the bottom of the dialog box.
16. For the second ETL step, define the path for the output report file in the "File Path" field.
17. Click on the "Next >" button to go the next ETL. The third ETL does not have any parameters. Click on the "Save" button to save the edits. To go to the previous ETL step, click in the "< Previous" button.
18. To test if the ETL chainset generates the report, select the last ETL step and click on the ⏯ "Run to Step" icon that appear on the right. Find the output report file in the location defined in the second ETL step.
19. To edit the ETL step, select the ETL step and click on the ✎ "Edit" icon. The "Edit Step" dialog box will appear.

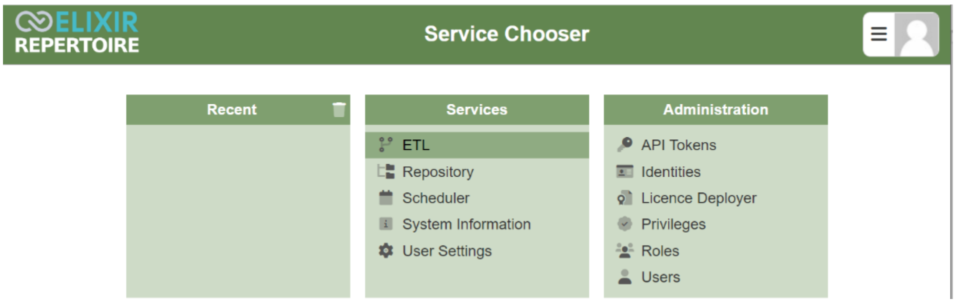
:

2.6.3. Scheduler ETL Via Emai

This method allows you to send an alert to any users, as long as their email addresses are defined in the step.

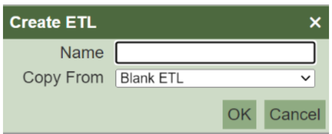
Use the following steps to create a scheduler ETL via email:

1. Click on the ≡ “Services” icon on the upper right corner of the page and select “Service Chooser”. From the “Services” panel, select “ETL”.



2. The ETL page will appear.

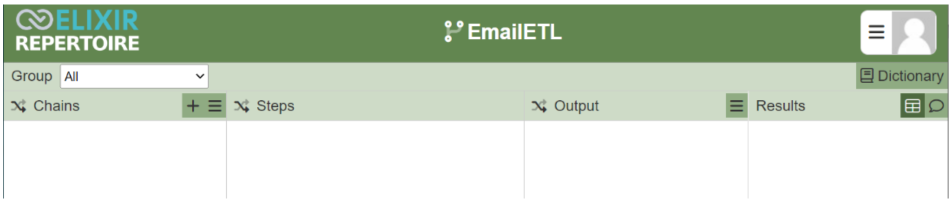
3. In the “ETL” page, click on the “Add” button on the upper right corner of the page. A “Create ETL” dialog box will appear.



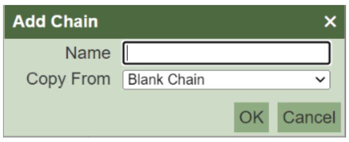
4. In the dialog box, key in and select the following:
   - “Name” field – Key in a name for the new ETL
   - “Copy From” field – Selects an existing ETL from drop-down list or a blank ETL (in this example, select “Blank ETL”)

5. Click on the “OK” button to save the changes.

6. The ETL Designer page appears.

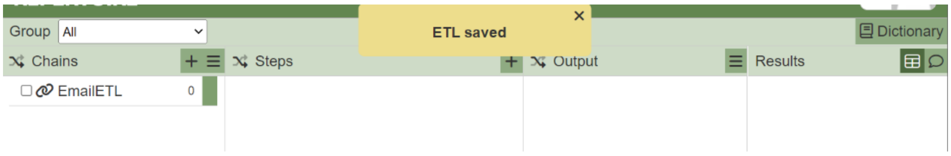


7. In “Chains” section, click on the “+” icon. The “Add” dialog box will appear.



8. In the dialog box, key in and select the following:
   - “Name” Field – Key in a name for the new
   - “Copy From” field – Selects an existing chain from the drop-down list or a Blank chain (in this example, select “Blank Chain”)

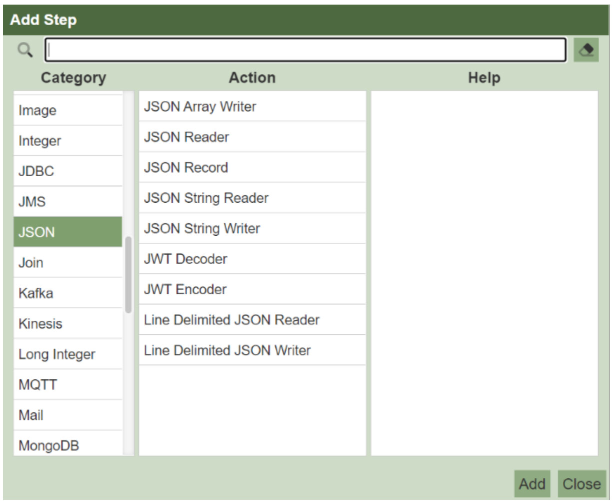
9. Click on the “OK” button to save the changes. A message will appear upon successful saving the ETL.



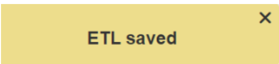
10. For the via email method, two steps are required:

    a. First step – Compose Mail
    b. Second step – Send Mail

11. Click on the “+” icon in the “Steps” panel. The “Add Step” dialog box will appear.

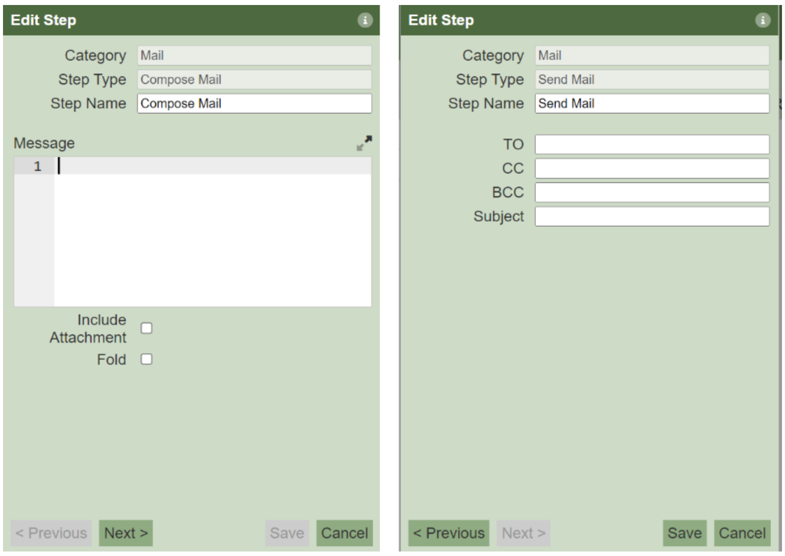


12. Add first ETL step and click on the “Add” button. The ETL step will be added into the “Steps” panel. Repeat for the other step and click on the “Close” button to close the dialog box. A message will appear upon successful saving the ETL.



13. The “Edit Step” dialog box will appear.

    Key in the desired text as content for the email. Click on the “Next >” button to go to the next ETL.



14. In the second ETL, key in the appropriate email addresses and subject in the respective fields.
15. To go back to the previous ETL, click on the “< Previous” button. Click on the “Save” button to save the edits.

2.6.4. Create Schedule

The Scheduler module allows you to set up jobs to automatically trigger the generation of these reports. The Scheduler module also allows you to view the status of the job, or sent an email to you, if it is being set up.

The Scheduler module consists of three pages:

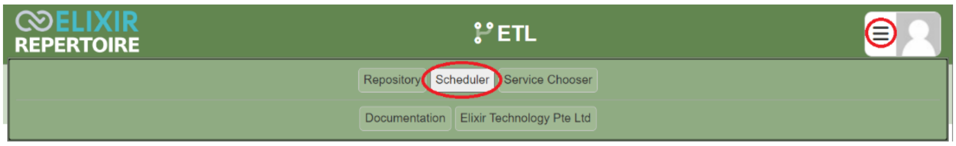
- Status – Shows the status of the job triggers that have run or are currently running
- Trigger – List all jobs that are available for the owner
- Calendar – List all constraints shared among the triggers

2.6.4.1. Create Calendar

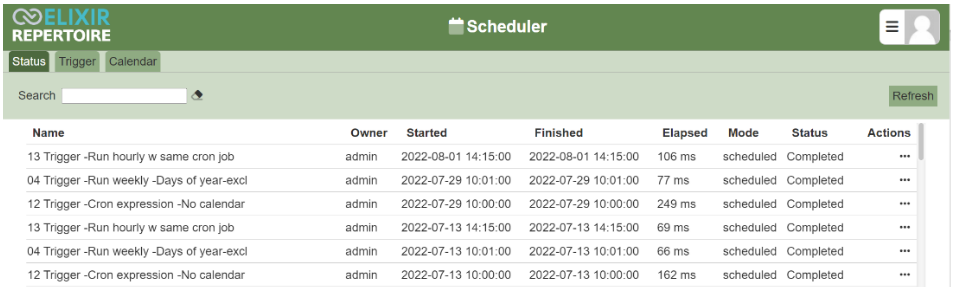
The Calendar page in the Scheduler module allows you to set conditions or constraints in these calendars and apply them onto the trigger to determine when the job is to be run, such as which year, month, day and/or time, as well as the time zone. Do note that the calendar constraints may be shared and can be used by more than one trigger.

Use the following steps to create a simple public holiday calendar:

1. Click on the ☰ “Services” icon on the upper right corner of the page and select “Scheduler”.

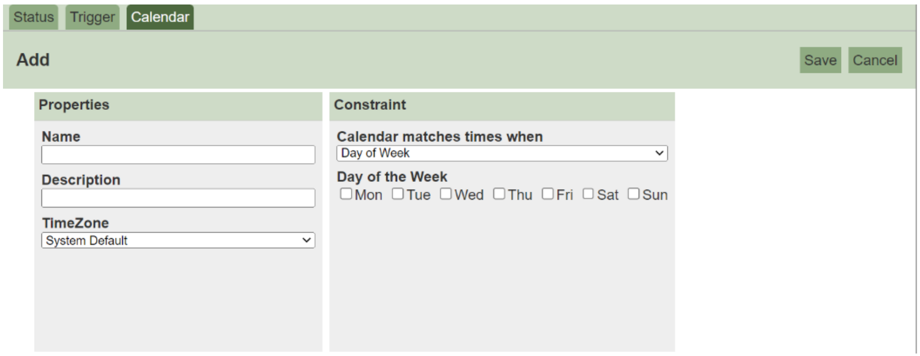


2. The “Scheduler” page will appear.

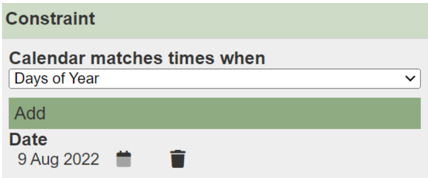


3. Click on the “Calendar” page.

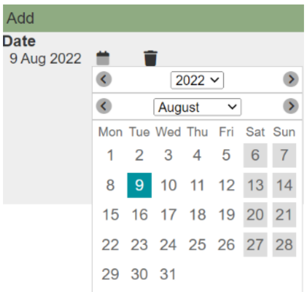
4. Click on the “Add” button on the upper right corner of the “Calendar” page. The “Add” panel will appear.



5. In the “Add” panel, key in and select the following:
   - “Properties” section:
     - “Name” field – Key in a unique name for the calendar
     - “Description” field – Key in a brief description for the calendar (optional)
     - “TimeZone” field – Selects timezone from drop-down list (optional but recommended) (in this example, select “Singapore”)
   - “Constraint” section:
     - “Calendar matches times when” field – Selects “Days of Year”
     - The next field is dependent on the above field, one or more fields may appear
6. Click on the “Add” button in the “Constraint” section to add a new date.



   By default, the current date is selected.
7. Click on the “Calendar” icon and select the correct date.



8. Repeat steps 6 and 7 until all public holidays are added.
9. Click on the “Save” button to save the changes. The new calendar is now listed in the “Calendar” page.

Repeat the above steps to create a weekday calendar that involves Monday to Friday only.

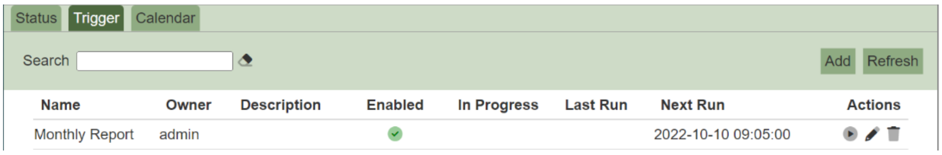
2.6.4.2. Trigger

A trigger defines the following:

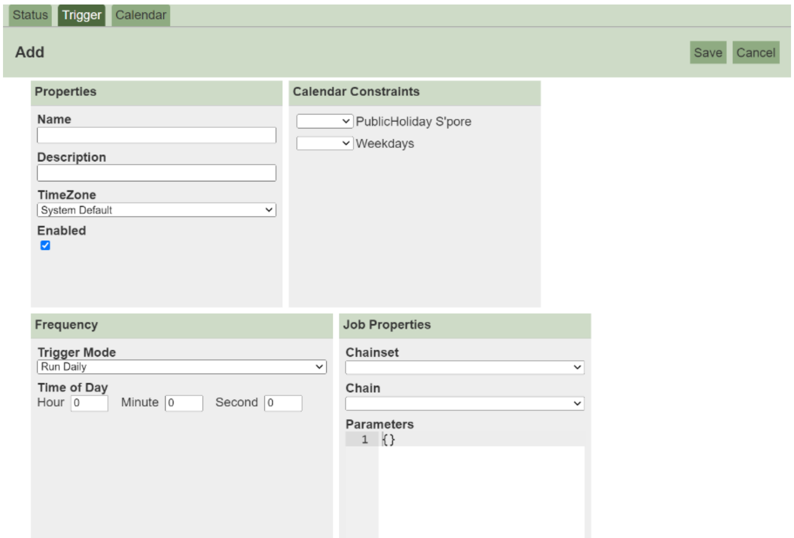
- Chain or chainset to run
- Frequency or interval of the trigger
- Calendars to decide when a trigger should fire at a particular month, date, day and/or time, as well as the time zone

Use the following steps to create a simple trigger:

1. Click on the “Trigger” page.



2. Click on the “Add” button on the upper right corner of the page.
3. The “Add” panel will appear.



4. In the “Properties” section, key in and select the following:
   - “Name” field – Key in a unique name for the calendar
   - “Description” field – Key in a brief description for the calendar (optional)
   - “TimeZone” field – Selects timezone from drop-down list (optional but recommended) (in this example, select “Singapore”)
   - “Enabled” field – Ensure this field is selected
5. In the “Constraint” section, select the following:
   - “Day of Week – Weekdays” – Selects “Include”
   - “Public Holiday Singapore” – Selects “Exclude”

   This will ensure only weekday and non-public holidays will trigger the job.

6. In the “Frequency” section, key in and select the following:
    - “Trigger Mode” field – Selects “Run Monthly”
    - “Monthly” field – Selects all months
    - “Days” field – Selects this field and key in “10”
    - “Time of Day” field – Key in “9” in the “Hour” field, “05” in the “Minute” field
7. In the “Job Properties” section, select the scheduler ETL that was created in Section 2.5.3 Scheduler ETL.
8. Click on the “Save” button to save the changes. The new job trigger is now listed in the “Trigger” page.

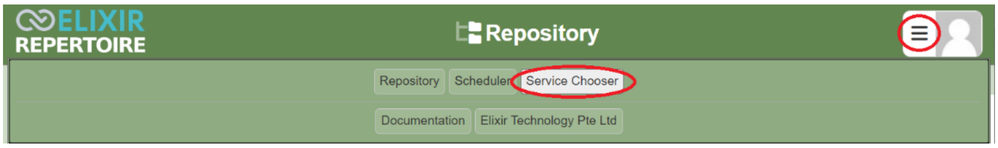
3. Annex

3.1. Add User

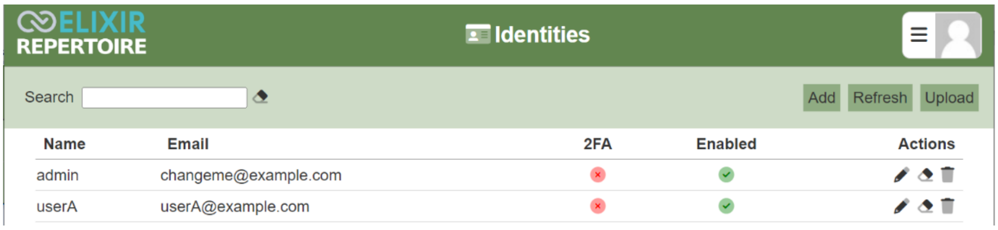
There may be a situation where you need to add a user into Repertoire 2022.

Use the following steps to add a user:

1. Click on the ≡ "Services" icon on the upper right corner of the page and select the "Service Chooser".

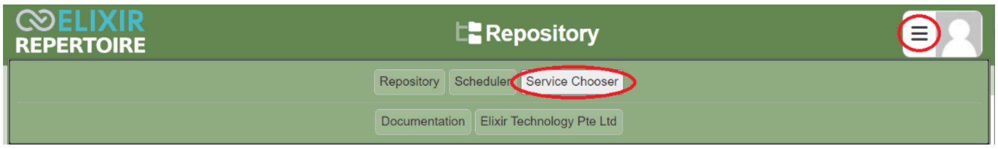


2. In the "Service Chooser" page, select "Identities" in the "Administration" panel. The "Identities" page will appear.

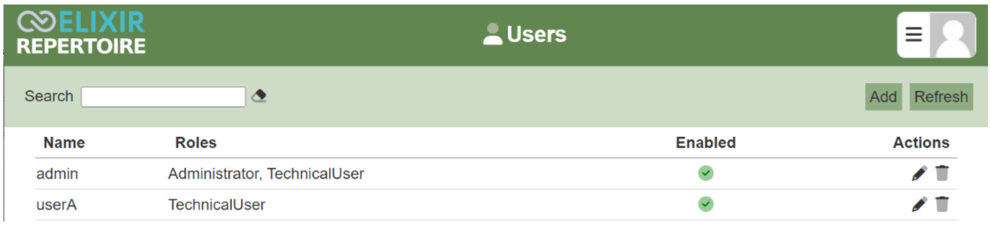


3. To add a new identity, click on the "Add" button on the upper right corner of the page. The "Add" page will appear.

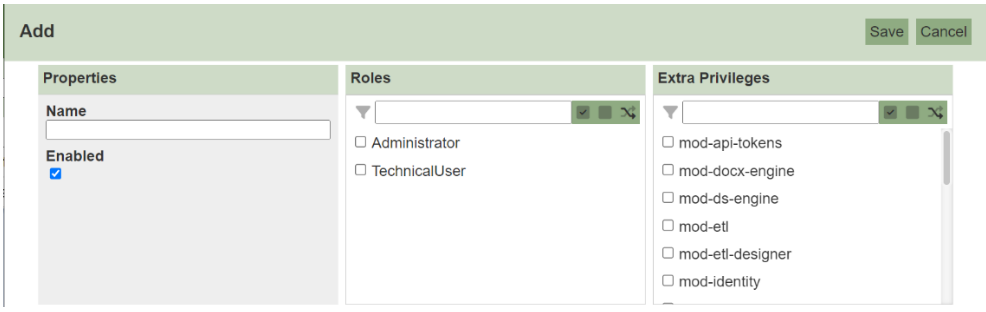
4. In the "Add" page, key in and select the following:
   - "Name" field – Key in a unique name
   - "Email" field – Key in the email of the new identity
   - "Enabled" field – Ensure this field is selected
5. Click on the "Save" button on the upper right corner of the panel.
6. Click on the "Services" icon on the upper right corner of the page and select "Service Chooser".



7. In the “Service Chooser” page, select “Users” in the “Administration” panel. The “Users” page will appear.



8. Click on the “Add” button at the upper right corner of the page.



9. Key in and select the following:
   - “Properties” section
     - “Name” field – The unique name created in the Identities module in the “Name” field
     - “Enabled” field – Ensure this field is selected
   - “Roles” section – Selects the appropriate role for the new user
   - “Extra Privileges” section – Selects the appropriate privileges

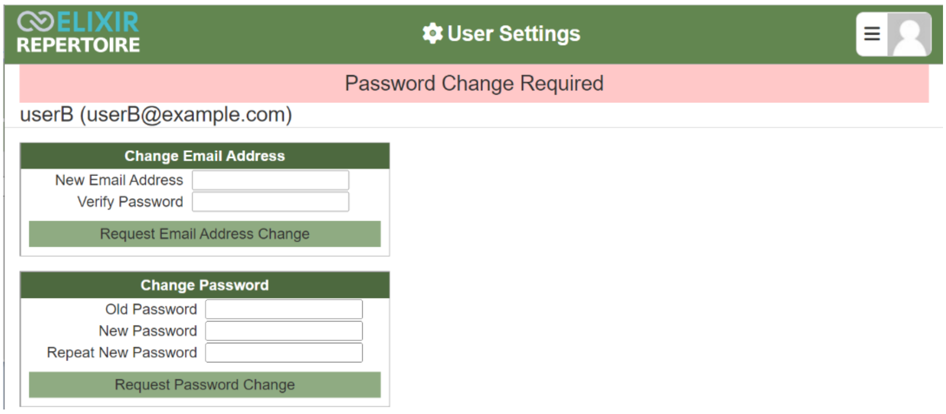
10. Click on the “Save” button at the upper right corner of the page.

11. If the email server has been set up, an email will be sent to the new user with a randomly generated password. The new user will need to change the password upon login.

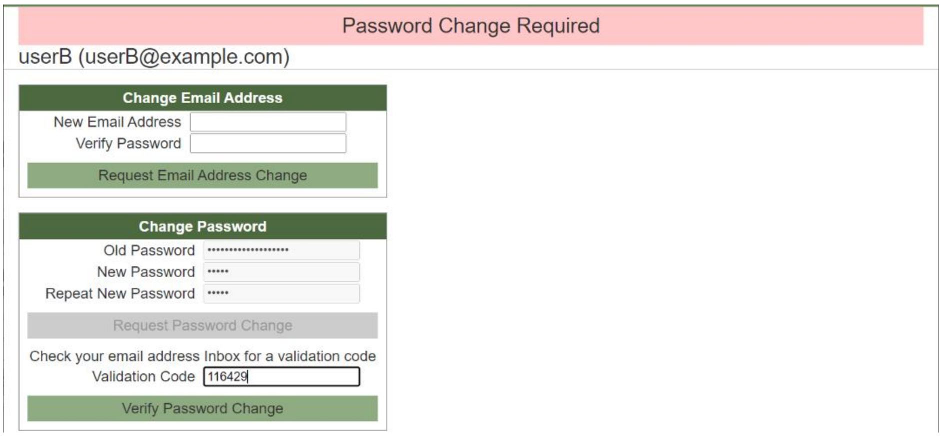
    If the email server has not been set up, the random password can be found in a text file in the “/mail” folder in the Repoertiore root directory.

3.2. Change Password

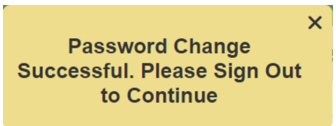
For normal users, you will be prompted to change your password on your first log in.



In the “Change Password” section, key in the old password and key in the new password twice. Hit the “Request Password Change” button. A verification panel will appear to request you to key in the validation code.



A validation code will be sent to your email upon successful change password request. Key in the validation code and click on the “Verify Password Change” button. A message will appear to inform you that the password change is successful.



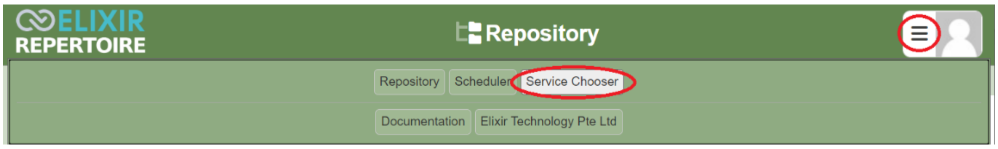
You have to logout and login again to continue.

3.3. Setup 2FA

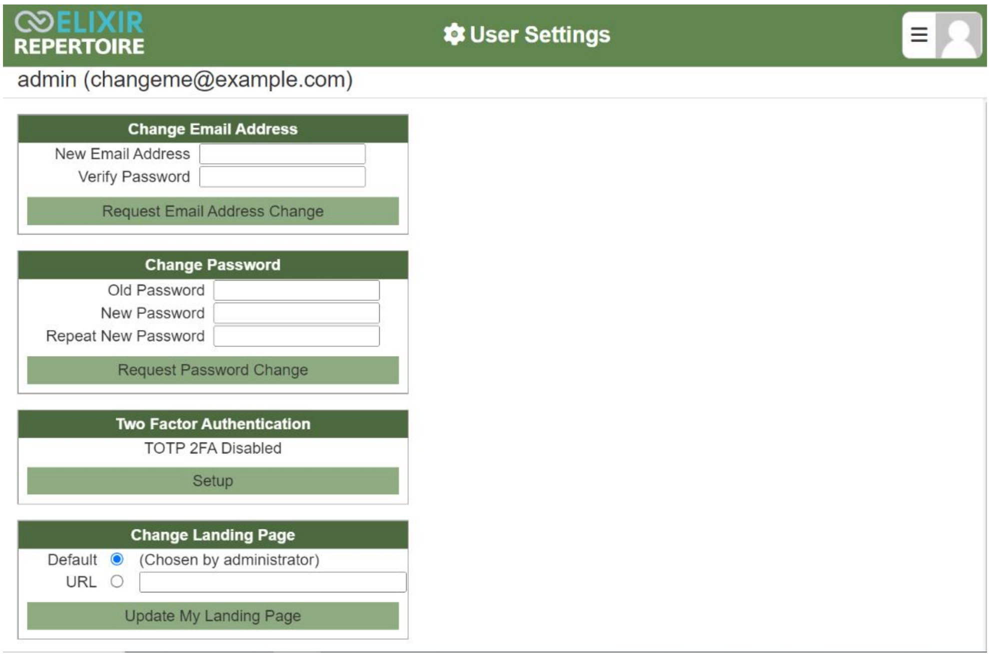
By default, TOTP 2FA is disabled in Ambience 2022. If it is enabled, users can set up their own TOTP 2FA using the User Settings module.

Use the following steps to setup 2FA:

1. Click on the ☰ “Services” icon on the upper right corner of the page and select the “Service Chooser”.



2. In the “Service Chooser” page, select “User Settings” in the “Services” panel. The “User Settings” page will appear.

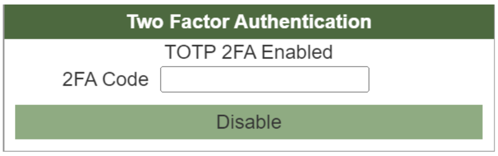


3. In the “Two Factor Authentication” section, click on the “Setup” button.

4. Open any 2FA Authenticator (such as Google Authenticator) on your phone to scan the QR Code. The app will register “*ElixirAmbience (<username>)*” and provides a 6-digit code. This code will change every 30 seconds.

   Repertoire provides a minute window for clock drift. Ensure the 2FA app and the Repertoire server is in sync.

5. Enter the 6-digit code as the 2FA Verification Code (with or without) space and click on the “Confirm” button. Once authentication is completed, the “TOTP 2FA Enabled” panel will appear.



6. If the wrong code (6-digit, less than 6-digit) or no code is entered, the following error messages will appear accordingly.

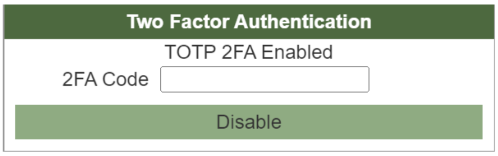
3.4. Disable 2FA

There are two ways to disable 2FA. User can disable it for themselves using User Settings module. Identity administrators can disable 2FA for any user via the Identities module (e.g., if a user has lost their 2FA device). Once the 2FA is disabled or reset, the user will need to set up 2FA again.

3.4.1. User Settings

One way is to use the User Settings module.

In the “Two Factor Authentication” section, key in the 6-digit code generated from the 2FA Authenticator into the “2FA Code” field and click on the “Disable” button.

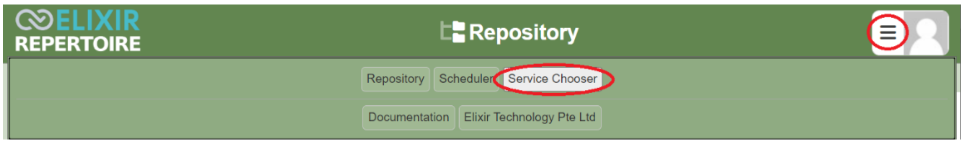


3.4.2. Identity

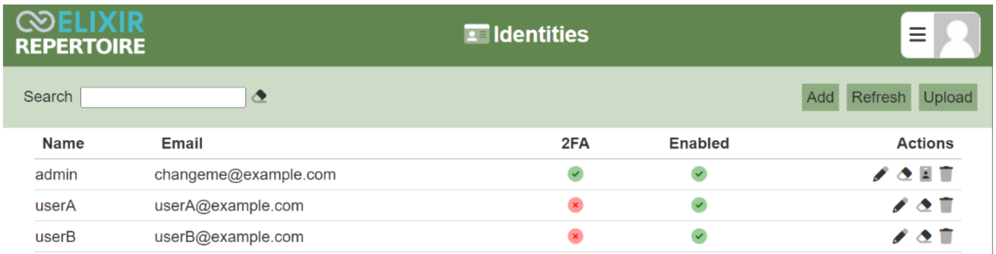
The other method is to use the Identities module.

To disable 2FA, use the following steps:

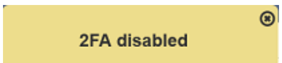
1. Click on the ≡ “Services” icon on the upper right corner of the page and select “Service Chooser”.



2. In the “Service Chooser” page, select “Identities” in the “Administration” panel. The “Identities” page will appear.



3. Select the “Reset 2FA” icon under the Actions column corresponding the desired user.
4. Upon successful deletion, a notification will appear.



3.5. Configure and Test Mail Server

When identities are added, an email is sent containing a random password. When a user wants to change email or password, a verification is sent via email as well.

If you have not set up an email server, the default behaviour is to store the emails in the "/mail" folder within Repertoire. This is usually for diagnosis or debugging purposes. It is recommended to set up a mail server at the start.

Below are two examples of how to set up a mail server.

Example 1: Uses Gmail

1. Gmail allows only OAuth2 authentication without weakening security. Visit https://console.developers.google.com/apis/credentials to set up a "*clientID*" and "*clientSecret*". Use these to generate a "*refreshToken*".
2. In the Repertoire 2022 root folder, navigate to the "/etc" folder. Open the "*application.conf*" file using a text editor. In the "*elixir.mail*" section, edit the following with the information obtained earlier accordingly.

```
elixir.mail {
  smtp = "gmail"
  gmail {
    host = "smtp.gmail.com"
    port = 587
    debug = true
    oauth2 {
      userName = "xxx@gmail.com"
      clientId = "XXXX"
      clientSecret = "YYYY"
      refreshToken = "ZZZZ"
    }
  }
}
```

3. After the above is edited in the "*application.conf*" file, start the Repertoire 2022 server and go to Identities module to create a user with a valid email address.

Example 2: Uses AWS

1. In the Repertoire 2022 root folder, navigate to the "/etc" folder. Open the "*application.conf*" file using a text editor. In the "*elixir.mail*" section, edit the following:

```
elixir.mail {
  smtp = "aws"
  aws {
    from = "user@elixirtech.com"
    host = "email-smtp.us-west-2.amazonaws.com"
    dnsResolver = ""
    port = 465
    user = "XXXX"
    password = "YYYY"
    connectionTimeout = 30000
    tls = true
    ssl = true
    authMechanism = ""
    debug = false
  }
}
```

2. After the above is edited in the "*application.conf*" file, start the Repertoire 2022 server and go to Identities module to create a user with a valid email address.