

DHIS2Xfer User Guide

# Installation

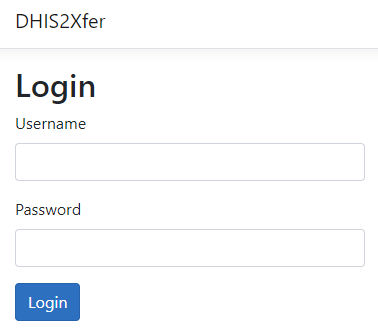
The application consists of two major components - a .Net Core MVC web application and a .Net Core console application. The Web application is used to create, configure and manually execute or test transfer jobs between one or more pairs of DHIS2 servers. The console application is used to automate the execution of jobs on a schedule.

In order to use the application, the .Net Core 3.1.x runtime or SDK needs to be installed. The web application should be compiled from source and deployed as a .Net Core 3.1.x application to a suitable web server such as IIS on Windows. Alternatively, it can be run ad-hoc on an administrator’s Windows workstation using the included batch file (\DHIS2Xfer\run.bat) if the .Net Core 3.1x SDK is installed on the workstation. This will compile the app on the fly and run it in an IIS session. Data for the mappings and jobs will be stored in the Files subdirectory of the binary debug directory (DHIS2Xfer\bin\Debug\netcoreapp3.1\Files). Simply clone the project into a local directory on your Windows machine and run the .bat file.

For the console application used to run job files from the shell prompt, compile the separate DHIS2Xfer console application and simply launch it from the command or shell (dotnet XferCore.dll). The config file stores details of where the required .xfer job file is located for the system to process. Note that settings in the config file are in key|value pairs separated with a pipe character (|).

For developers, the sln files are from Visual Studio 2019. Note that for the web application, you will have to update the dependency reference to the XferCore.dll file (COM reference). Simply remove the existing reference and add it again, navigating to a copy of the compiled XferCore.dll file from the XferCore solution. This is preferred to ensure the latest XferCode.dll is being used.

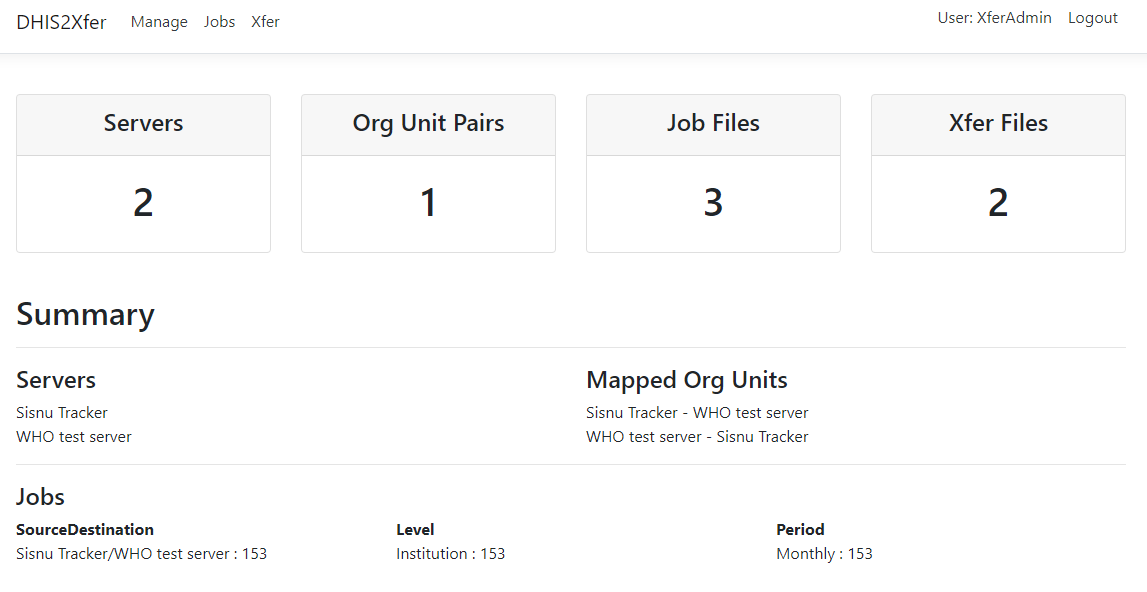
# Login



Username: XferAdmin

Password: Xfer@appUser

# DHIS2Xfer Homepage

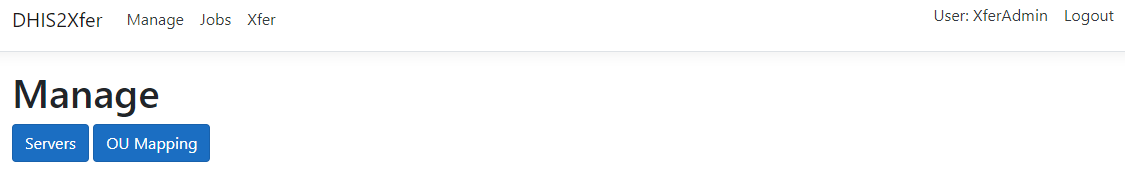


Upon login, you are greeted with a homepage that acts as a summary for the number of servers, Org Unit Pairs, Job Files, Xfer files, etc.

Navigating through the various areas of this tool is done through the menu bar on the top left. Clicking DHIS2Xfer will bring you to the homepage, and particularly upon initial setup, the three following options are done in order, as described in much greater detail in the rest of this training document:

1. **Manage**
   1. Add/Edit/Test/Delete/Sync Servers
   2. Manage OU Mapping
2. **Jobs**
   1. Add/Map/Unmap/Edit/Delete Jobs
3. **Xfer**
   1. Add/Edit/Run/Download/Generate/Delete Xfer files

# Manage

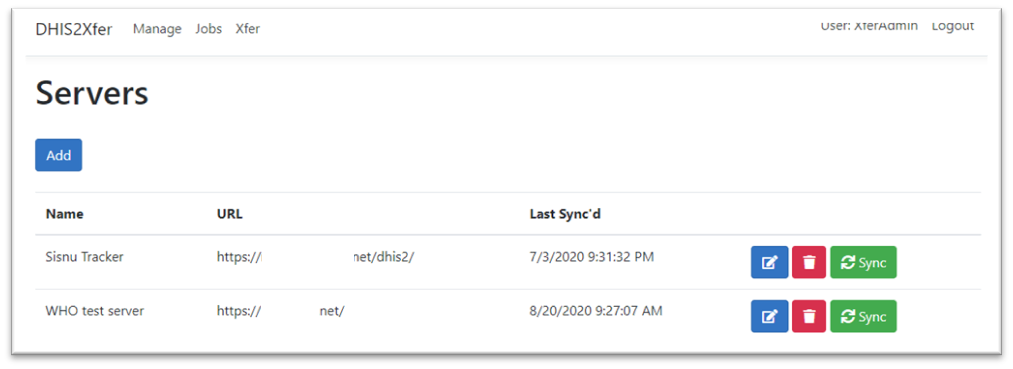


Clicking on **Manage** will bring you to this page in which you can select from two options:

**Servers** or **OU Mapping**

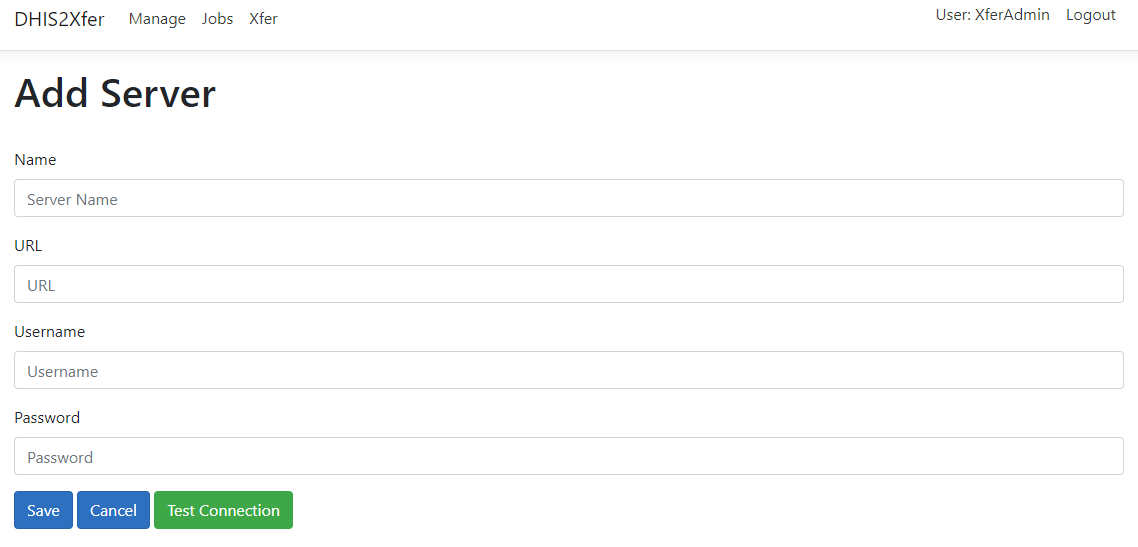
To begin, click **Servers** and proceed to the next page of this document.

## Manage – Servers



On this page you will find a list of servers that have already been configured. Within this page you will see buttons for **Add, Edit, Delete,** and **Sync,** which are described in detail in the following sub-sections.

### Servers – Add Server and Test Connection

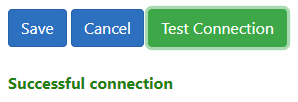


Clicking the blue **Add** button will bring you to this page in which you can enter the:

* Server Name
* URL
* Username
* Password

*(An example of this information filled out can be seen in the following section)*

Once you enter all the above information, it is recommended to click **Test Connection** before saving. If DHIS2Xfer is able to connect properly, you will be see the following status:



Upon Successful connection, press **Save** to return to the previous page.

### Servers – Edit



Clicking the blue **Edit** button on the main **Servers** page will bring you to this page, in which you can see the following information filled out:

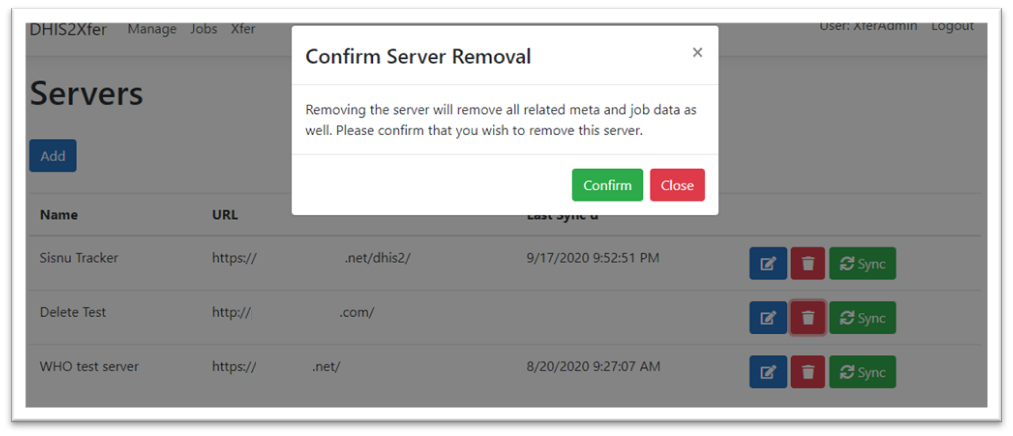
* Server Name
* URL
* Username
* Password

Likewise, on this page you can click **Test Connection** to verify a successful connection. If a connection is not successful, you are able to edit the configuration on this page and re-test until successful.

Clicking on **Save** will update any changes you may have made and will bring you to the previous page.

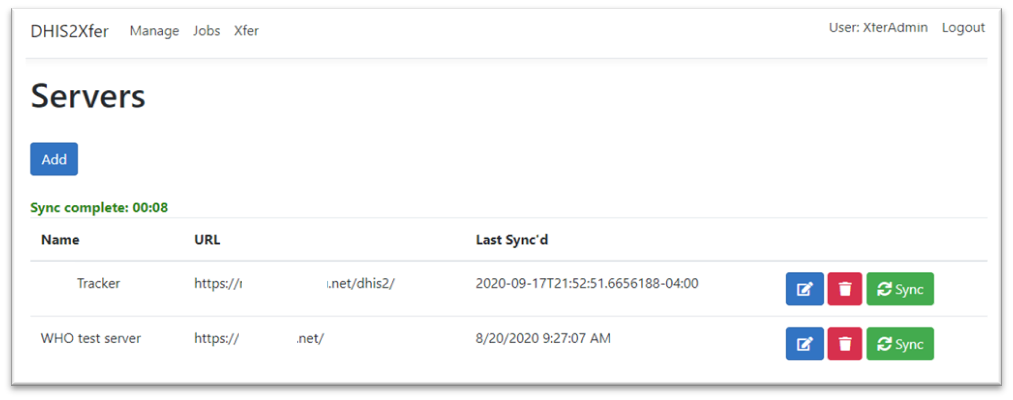
Clicking **Cancel** will disregard and changes you may have made and return you to the pervious page.

### Servers – Delete



Clicking the red **Delete** button will display this pop-up window in which you are able to delete a Server configuration.

### Servers – Sync

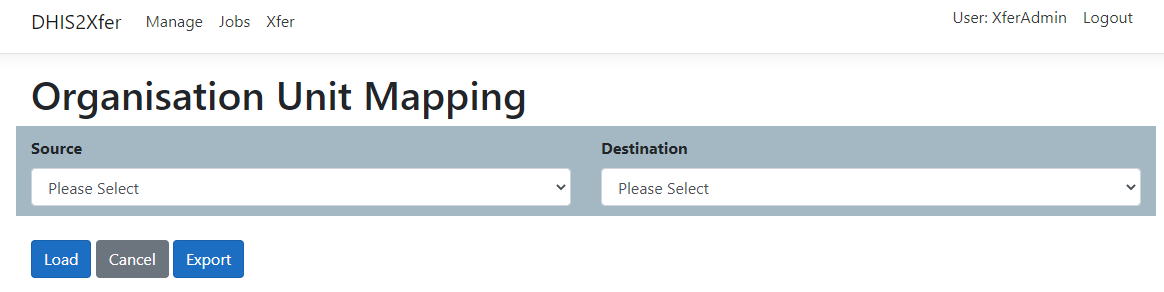


Clicking the green Sync button will query and download the metadata structure (not the data itself) from the selected server.

This may take several seconds to several minutes. Upon successful sync, you will see the above message in green, as well as the **Last Sync’d** column will update with your current time.

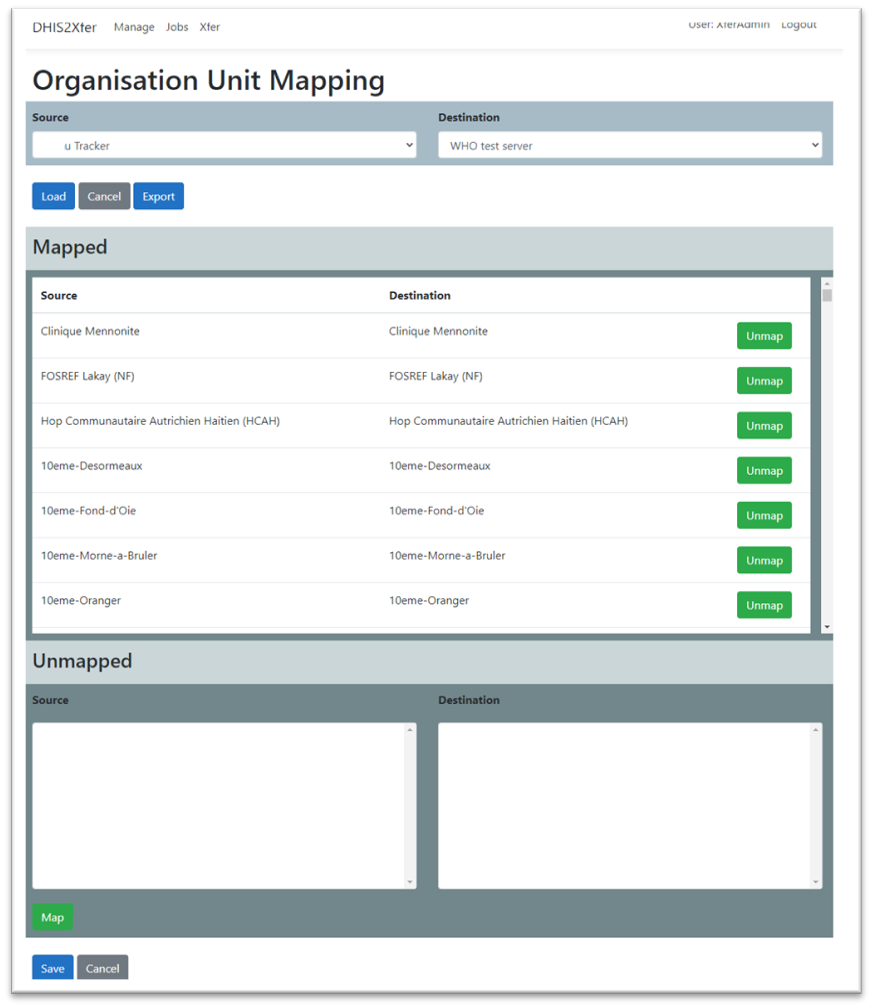
*Note: Before pressing Sync, it is best practice to first* ***Edit*** *the server and click* ***Test Connection****.*

## Manager – OU Mapping



To access this page, click **Manage** from the top bar and then select **OU Mapping**.

### OU Mapping – Load

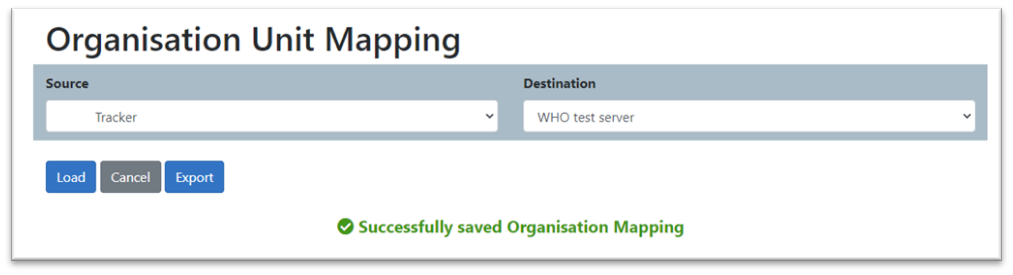


This page is where you can configure the automated transfer between server pairs. Select the **Source** server from the left drop-down menu, and the **Destination** server from the right drop-down menu.

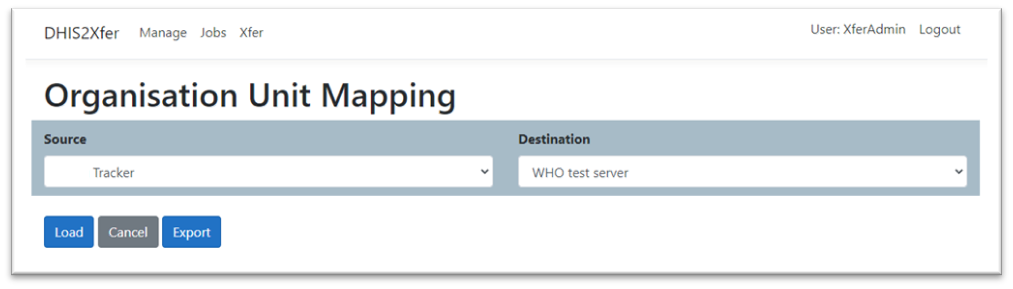
Once the server pair is selected, click **Load.** The page will expand to show you the above list of Organisation Unit pairs that are automatically mapped between the server pairs.

Any OUs that are not able to be matched up will display in the **Unmapped** section, respectively. Here, matching pairs can be manually selected (click one on each side). Once a pair is manually selected, click the green Map button.

Once complete, click **Save** and you will see the following message:

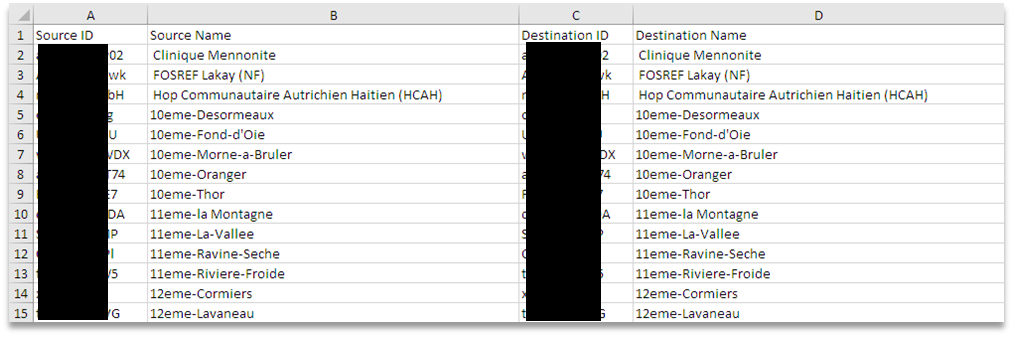


### OU Mapping – Export

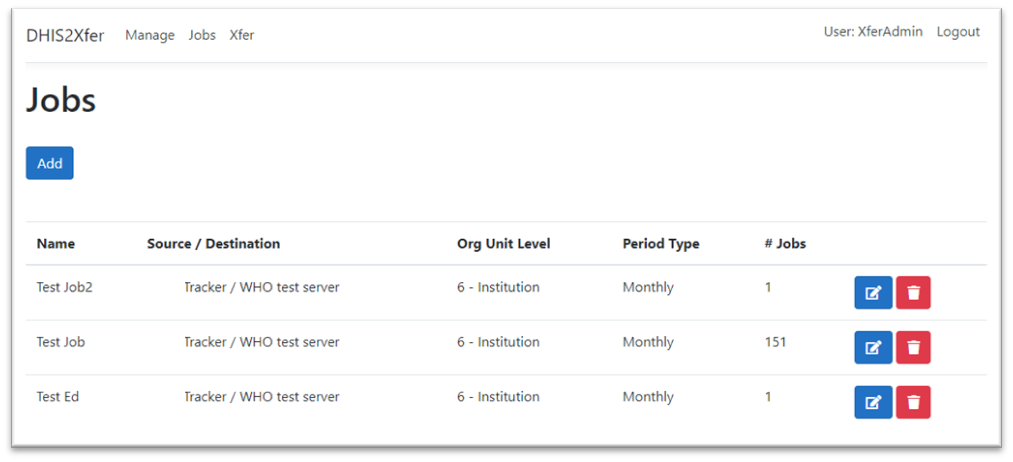




You may export the OU pair mapping in the form of an Excel spreadsheet by clicking the **Export** button. The file will download automatically after a few seconds.



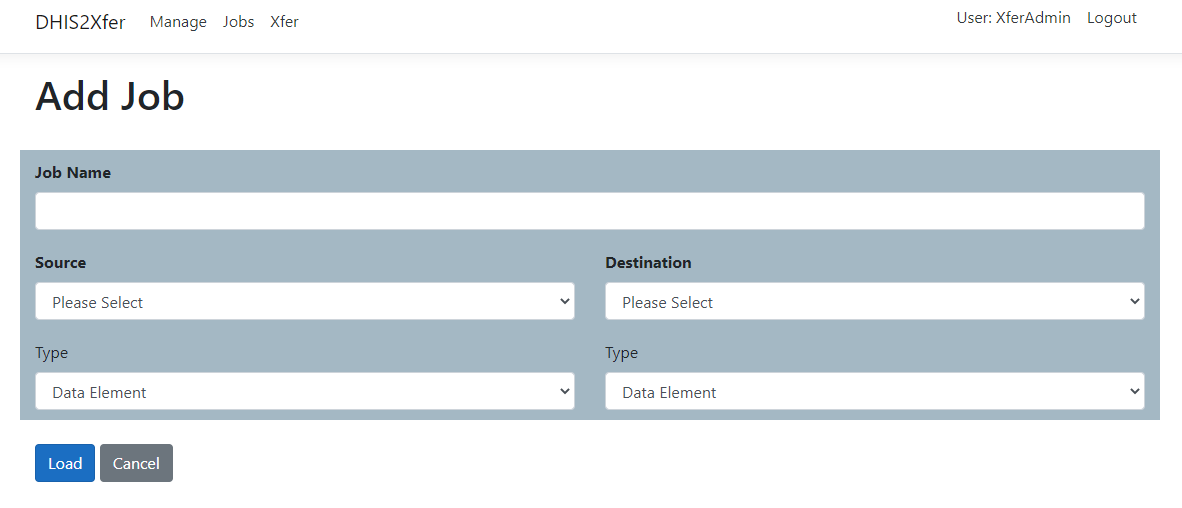
# Jobs



After configuring the **Servers** and **OU Mapping,** proceed to the second section: **Jobs**. In this section, you can set up the automation of data synchronization (“**Jobs**”) between the server pairs.

On this page, you can see the list of existing jobs, **Add** a new job, and **Edit/Delete** existing jobs.

## Jobs – Add

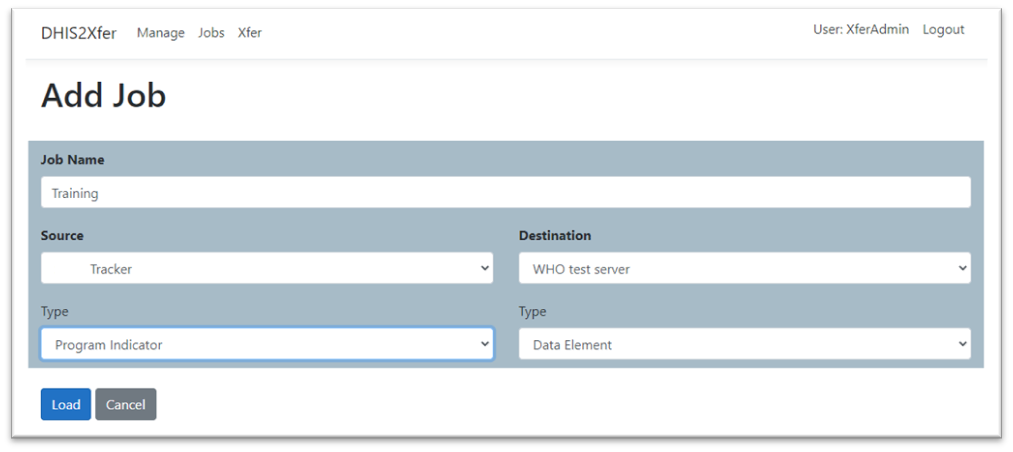


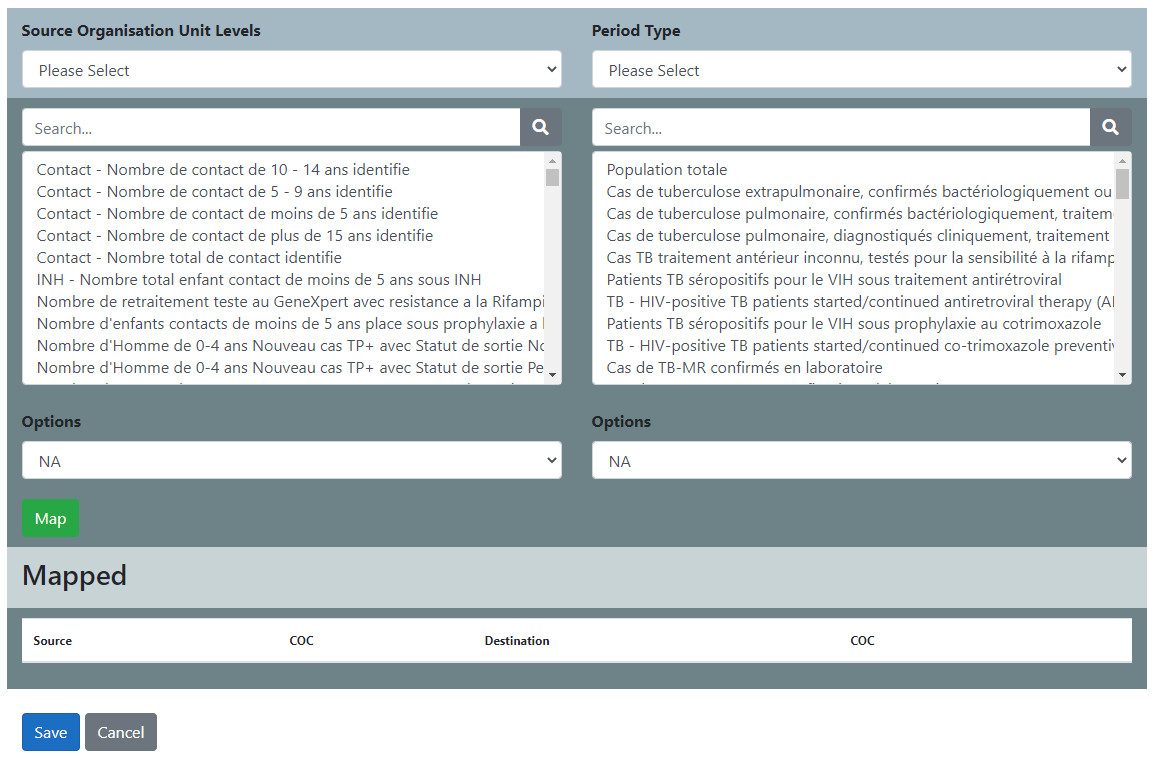
Clicking **Add** will bring you to the above page in which you can enter the:

* Job Name
* Source
  + Source Type
* Destination
  + Destination Type

*(An example of this information filled out can be seen in the following section)*

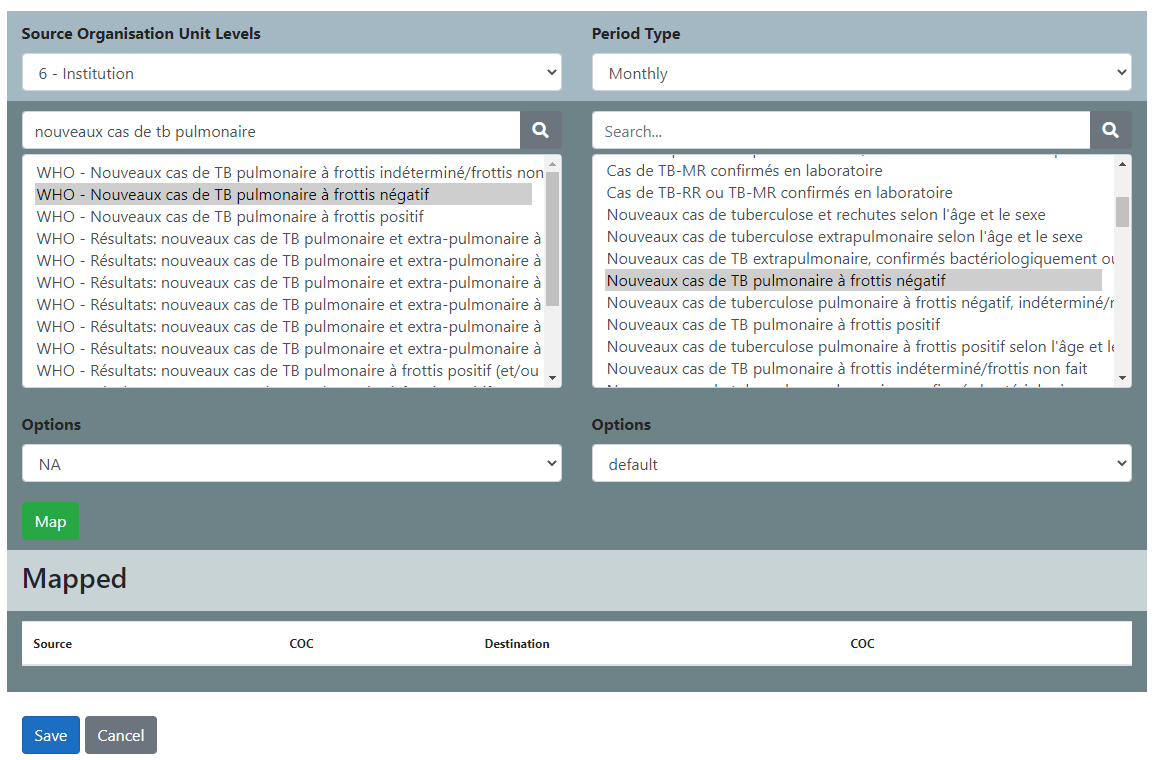
### Add – Load





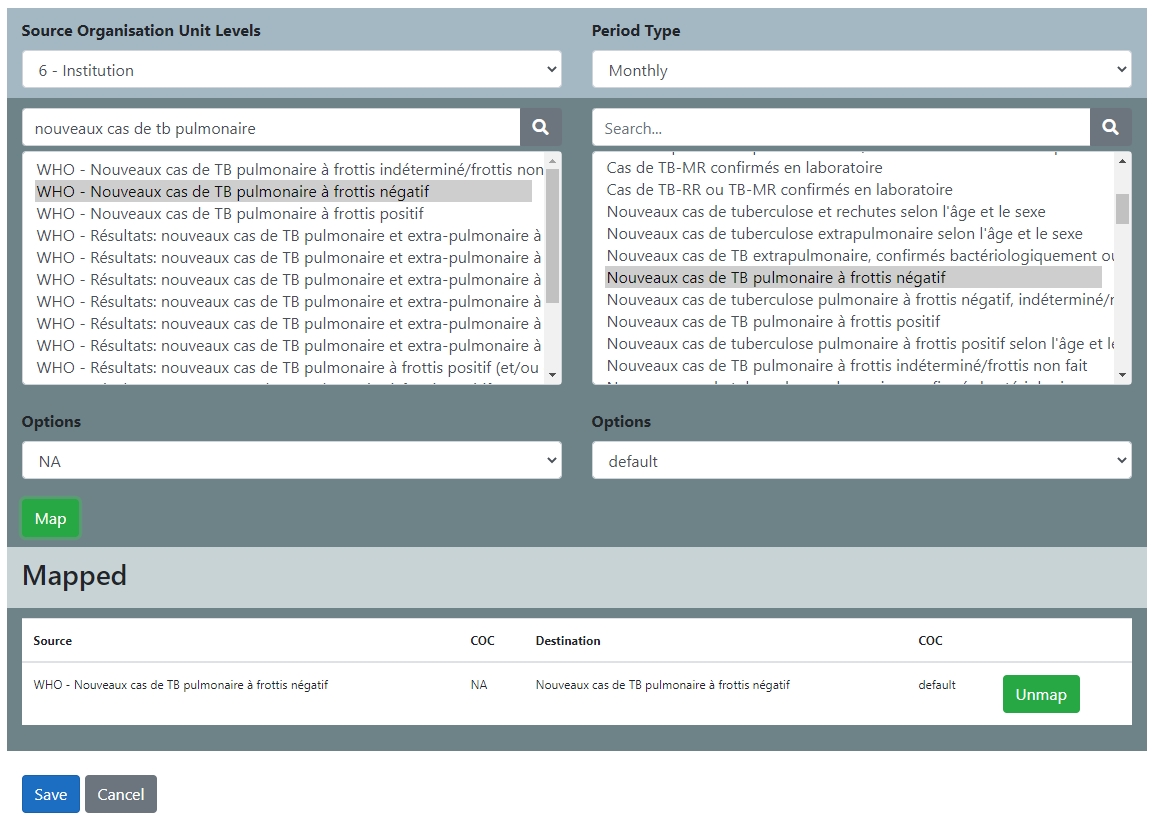
After filling in the initial information, click **Load** and the page will expand. Proceed to the following section for information about the Job configuration and the mapping of OUs.

### Add – Map/Unmap



After clicking **Load**, you may fill out the:

* Source Organisation Unit Levels
  + 1 - National
  + 2 - Departmental
  + 3 - UAS
  + 4 - Communes
  + 5 - Sections Communales
  + 6 - Institution
  + 7 - ASPC
* Period Type
  + Daily
  + Monthly
  + Yearly



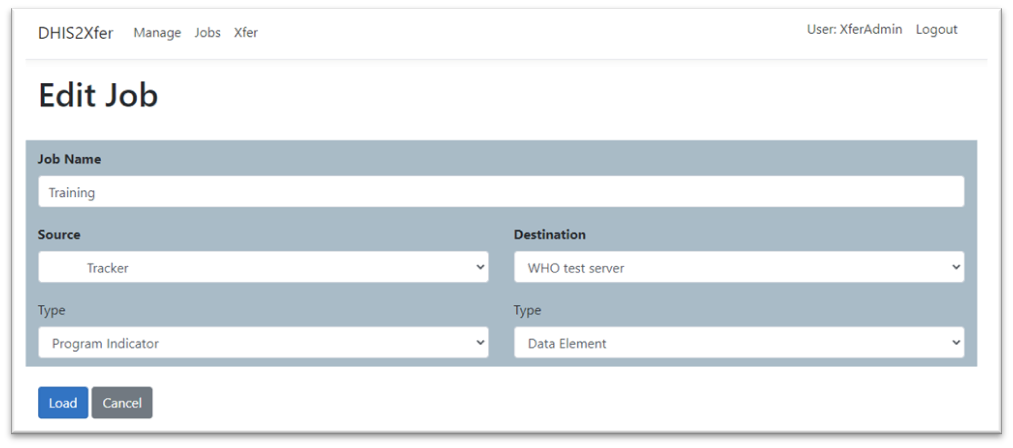
As before, the source server’s OUs are displayed on the left, and the destination server’s OUs are displayed on the right.

Similar to the [OU Mapping – Load](#_OU_Mapping_–) step, matching pairs can be manually selected (click one on each side). Once a pair is manually selected, click the green Map button. Typing keywords into the search bar will help filter through a long list.

Once a pair is selected, the Options fields on both sides will update. This allows you to select a category option combo to map if category option combos are implemented.

Once complete, click the **Save** button to return to the **Jobs** page.

## Jobs – Edit

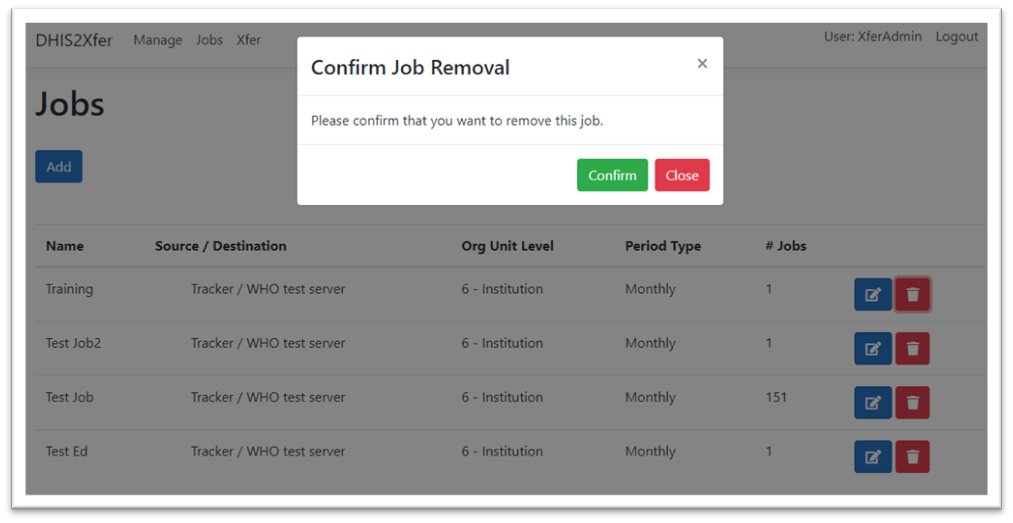


Clicking the blue **Edit** button on the main **Jobs** page will bring you to this page in which a Job’s configuration may be viewed and/or updated.

Clicking on **Save** will update any changes you may have made and will bring you to the previous page.

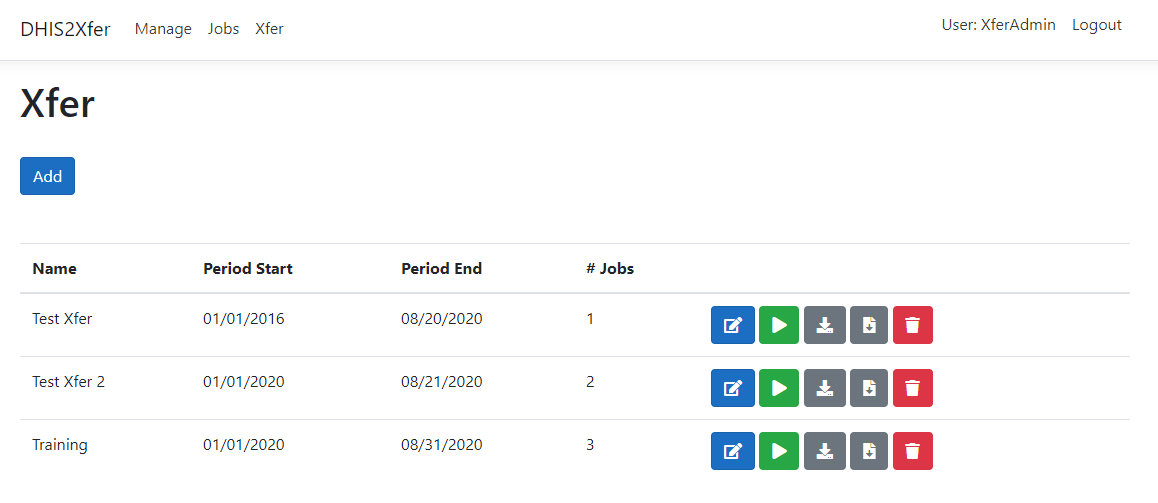
Clicking **Cancel** will disregard and changes you may have made and return you to the pervious page.

## Jobs – Delete



Clicking the red **Delete** button will display this pop-up window in which you are able to delete a Job configuration.

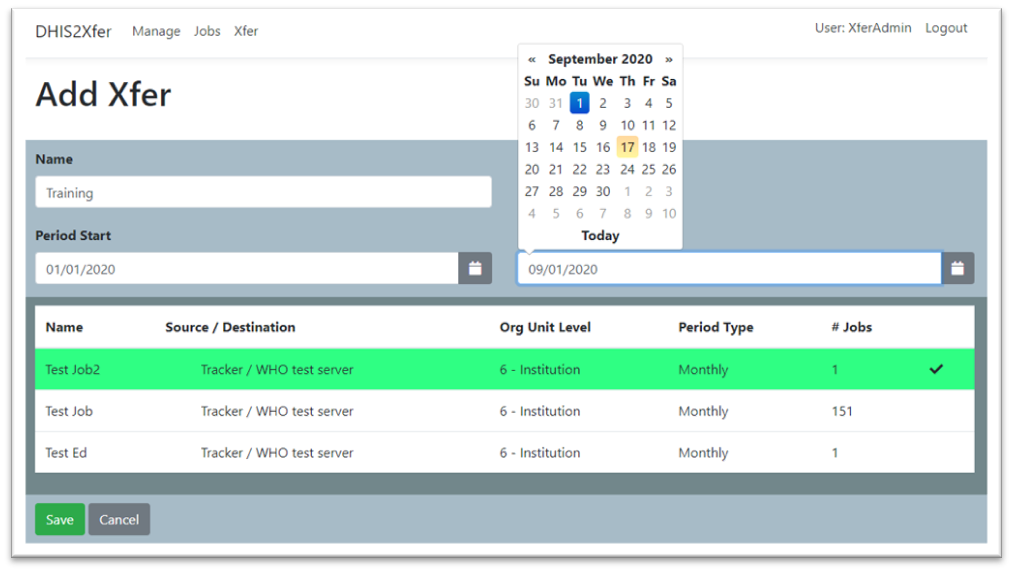
# Xfer



After configuring the **Servers**, **OU Mapping,** and **Jobs,** proceed to the third and final section: **Xfer**. In this section, you can create, edit, run, download/generate, and delete Xfer files. The primary function of this section is to test Xfer files before deploying to a server where they can be automated using the DHIS2Xfer console application.

On this page, you can see the list of existing jobs, **Add** a new job, and **Edit/Run/Download/Generate/Delete** existing jobs.

## Xfer – Add



Clicking **Add** will bring you to the above page in which you can enter the:

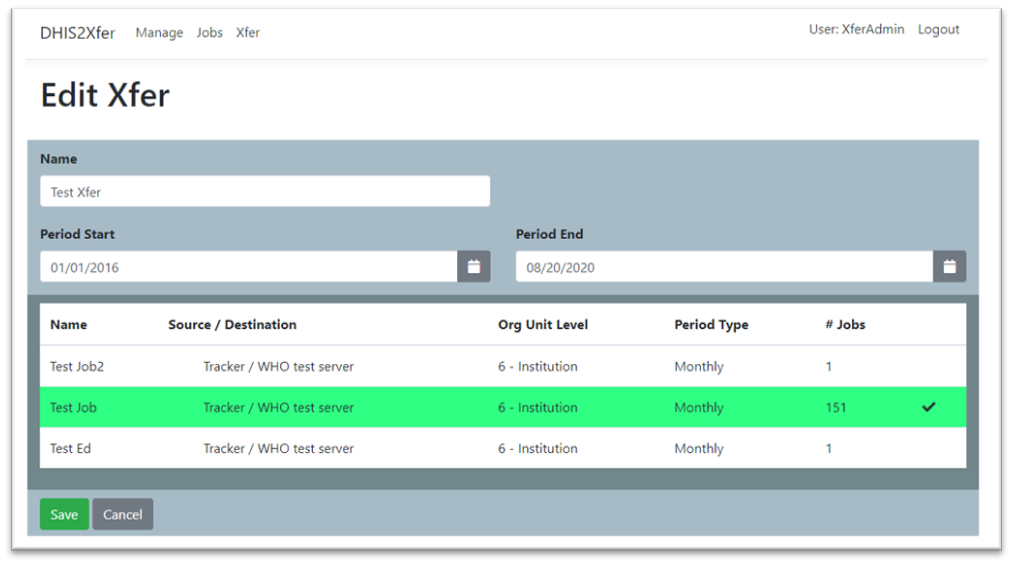
* Name
* Period Start
* Period End

Additionally, you will see a list of all existing **Jobs**. One or more jobs can be selected (the selected one(s) will be highlighted in green with a checkmark to the right).

The **# Jobs** refers to the number of OUs matched in the [Jobs – Add – Map/Unmap](#_Add_–_Map/Unmap) section.

Press **Save** to return to the previous page.

## Xfer – Edit

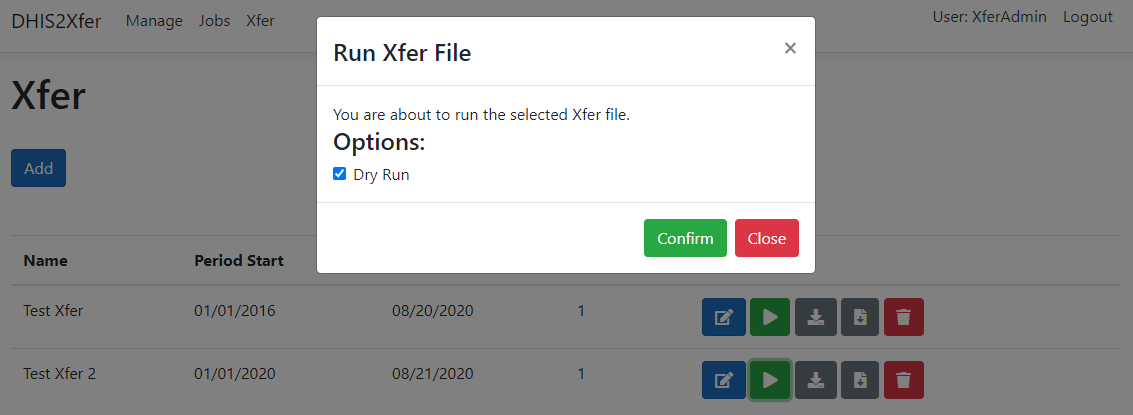


Clicking the blue **Edit** button on the main **Xfer** page will bring you to this page in which an Xfer’s configuration may be viewed and/or updated.

Clicking on **Save** will update any changes you may have made and will bring you to the previous page.

Clicking **Cancel** will disregard and changes you may have made and return you to the pervious page.

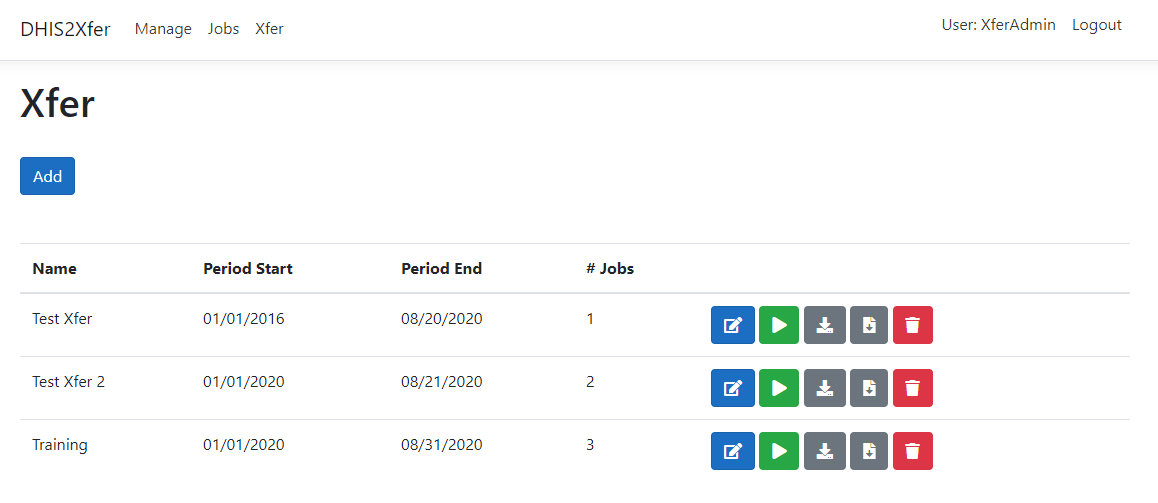
## Xfer – Run



Clicking the green **Run** button on the main **Xfer** page will display this pop-up window in which you are able run an Xfer.

If **Dry Run** is checked before clicking **Confirm**, the Xfer will run and output generated but the data will not be integrated from the source to the destination server.

## Xfer – Download Xfer File

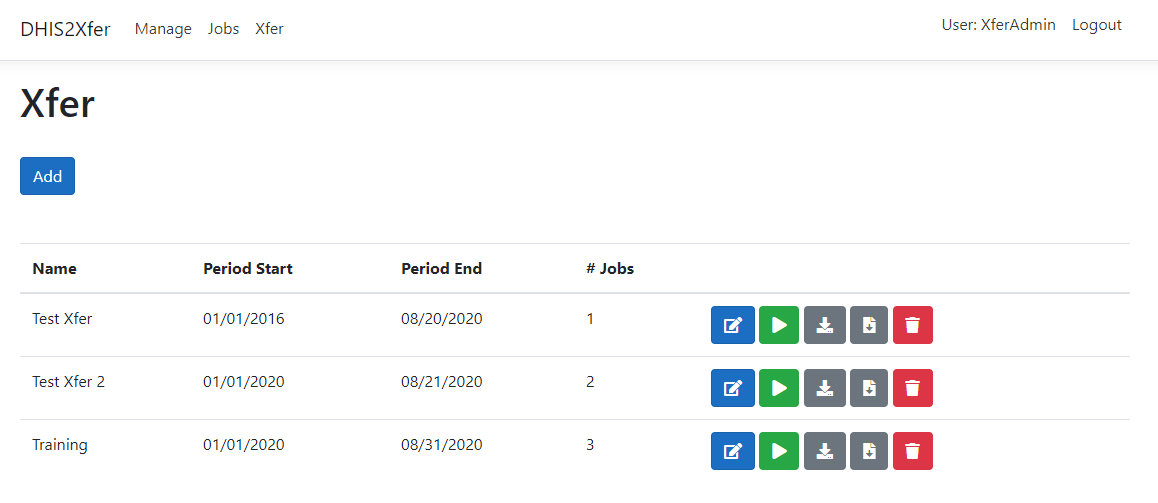




You may export the Xfer file by clicking on the grey **Download Xfer File** button. The file will download automatically after a few seconds.

The downloaded .xfer file can be put on a server for automation using the DHIS2Xfer console application.

## Xfer – Generate Manual Import File

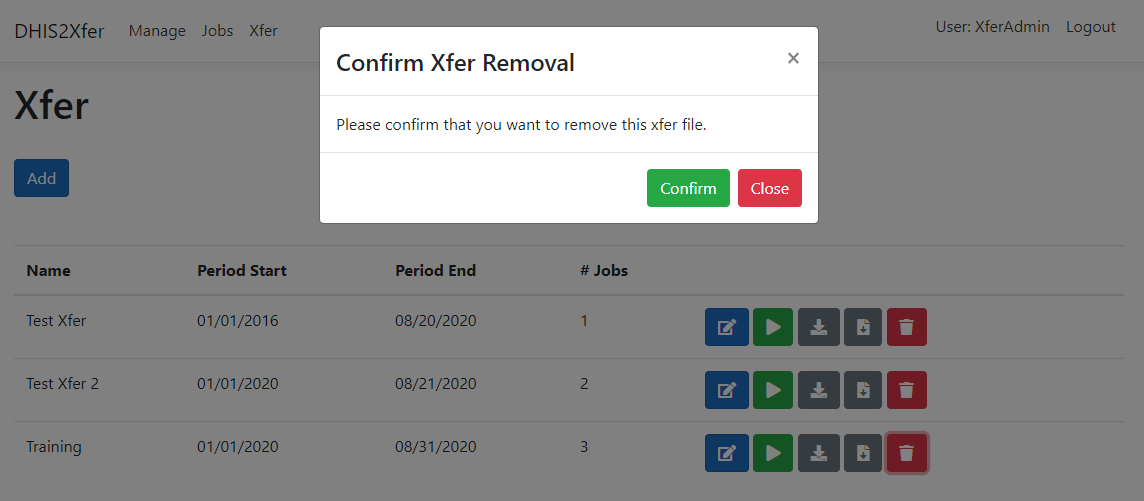




You may generate a manual import file by clicking on the grey **Generate Manual Import File** button. The file will download automatically after several seconds.

This file can be used to perform an import on the destination system using the DHIS2 data import/export application.

## Xfer – Delete



Clicking the red **Delete** button will display this pop-up window in which you are able to delete an Xfer configuration.