

SENS Version 3 - Webinar 5

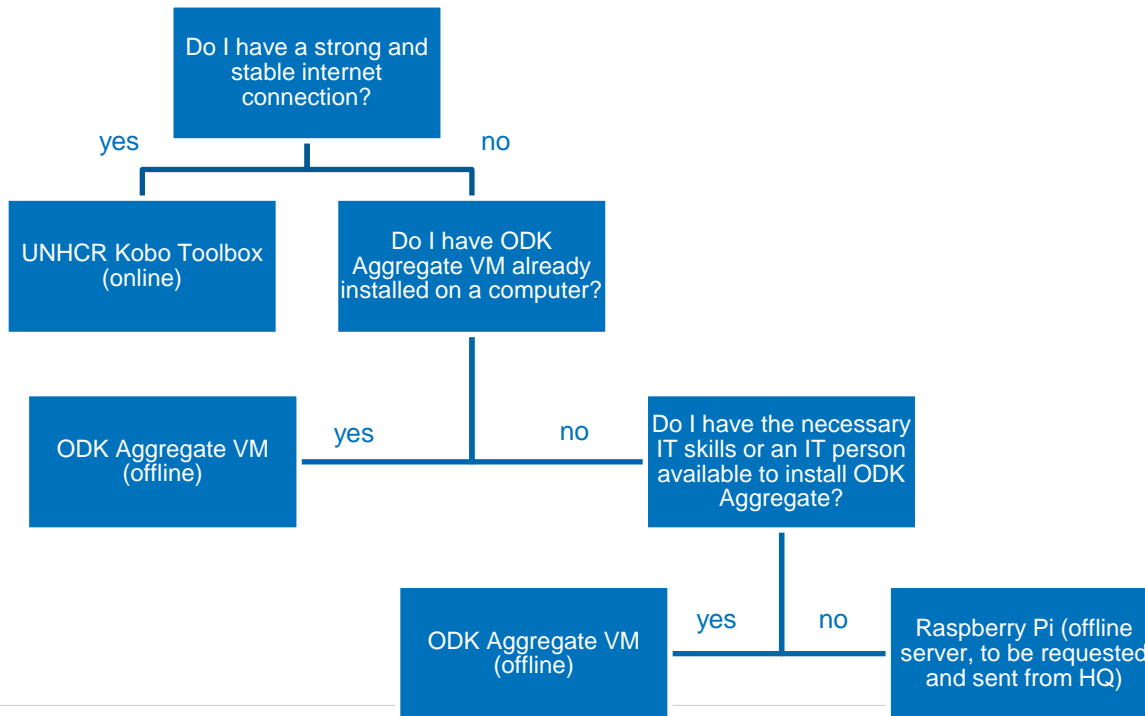
Wednesday, November 4th 2020

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Agenda of Webinar 5

- Brief overview of the tools and interconnections.
- Data collection with ODK Collect.
- Survey and data management with Kobo Toolbox.
- Survey and data management with Raspberry Pi.

The Platforms – Which One to Choose



UNHCR Kobo Toolbox – Pros and Cons

PROS:

- Easy to install and user-friendly.
- Not necessary to convert files to XML.
- Online sharing rights. Also adapted for contexts of country-level types of survey, where remote sharing of survey and datasets would be necessary.

CONS:

- Briefcase not compatible with Kobo Toolbox anymore. Potential syncing issues.
- Can share the project/survey/dataset only with users having an account on the Kobo Toolbox server.

ODK Aggregate – Pros and Cons

PROS:

- Well adapted when having unreliable or no internet connection
- Sharing rights easily put in place, not necessary to create an account for each role.
- Works better if syncing issues with datasets already encountered (compatible with ODK Briefcase).

CONS:

- IT skills necessary in order to install VM if ODK Aggregate is not installed on computer yet.
- Not adapted for contexts of country-level types of survey, where remote sharing of survey and datasets would be necessary.
- Conversion of the files to XML needed.

Raspberry Pi – Pros and Cons

PROS:

- Well adapted when having unreliable or no internet connection
- Easy to install (only plug in).
- Sharing rights easily put in place, not necessary to create an account for each role.
- Works better if syncing issues with datasets already encountered (compatible with ODK Briefcase).

CONS:

- Not adapted for contexts of country-level types of survey, where remote sharing of survey and datasets would be necessary.
- Conversion of the files to XML needed.

What is OpenDataKit (ODK) Collect

- Most well known MDC solution in the humanitarian sector.
- Open source solution for Android:
 - Widely used
 - Basis for numerous systems
 - Powerful and flexible
 - Secure storage on your own servers possible
- Different deployment profiles possible (offline with USB, offline on local network, online, etc.)



Why Use ODK Collect

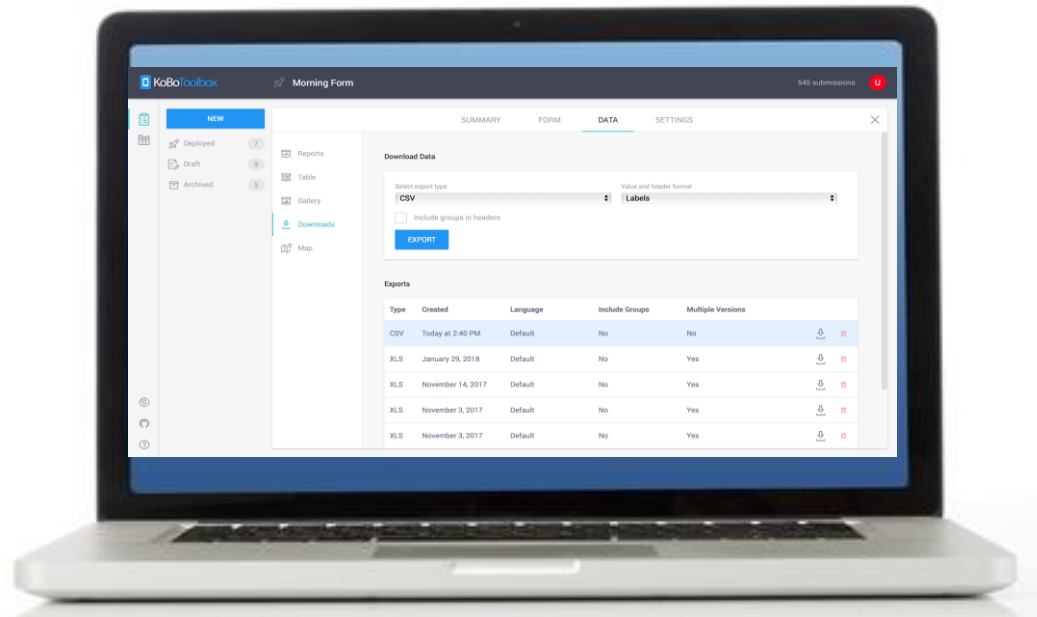
- ODK Collect and Kobo Collect are similar apps. They could both be used for data collection for SENS.
- HOWEVER:
 - ODK Collect is updated and thus debugged on a more regular basis than Kobo Collect.
 - ODK Collect has more advanced features.
- THUS, **use ODK Collect** for SENS data collection.
 - Make sure you do not have both ODK Collect and Kobo Collect apps on your phone: as those 2 use the same directory on your phone, they can interact and bug each other if on the same phone.



Kobo Collect

What is KoBo Toolbox?

- KoBo: online server developed by Harvard Humanitarian Initiative with support from UN OCHA
- The server used for SENS survey is a UNHCR server.



Create an Account

<https://kobo.unhcr.org>

- Fill in the necessary information:
 - make sure the user name has no capitals, no spaces and no special characters.
- Check your emails for validation email:
 - it can take a few minutes;
 - be careful not to click on the link twice by mistake;
 - Check your spam if you cannot see the email.
- Then log in to the online platform.

KoBoToolbox

Username:
nutfs_training_phs

Password:
.....

Forgot?

Login

or create an account

KoBoToolbox

Username

Email

Password

Repeat Password

Create Account

or login

KoBoToolbox is an integrated set of tools for building forms and collecting interview responses. It is built by the Harvard Humanitarian Initiative for easy and reliable use in difficult field settings, such as humanitarian emergencies or post-conflict environments.

This instance of KoBoToolbox is hosted and supported by UN OCHA and can be used without limitations by any humanitarian organization. Please sign up with your organization's email address.

If you are not working for a humanitarian organization, please instead sign up at the [Instance hosted by the Harvard Humanitarian Initiative](#).

You can also download and install KoBoToolbox on your own server or on your own computer.

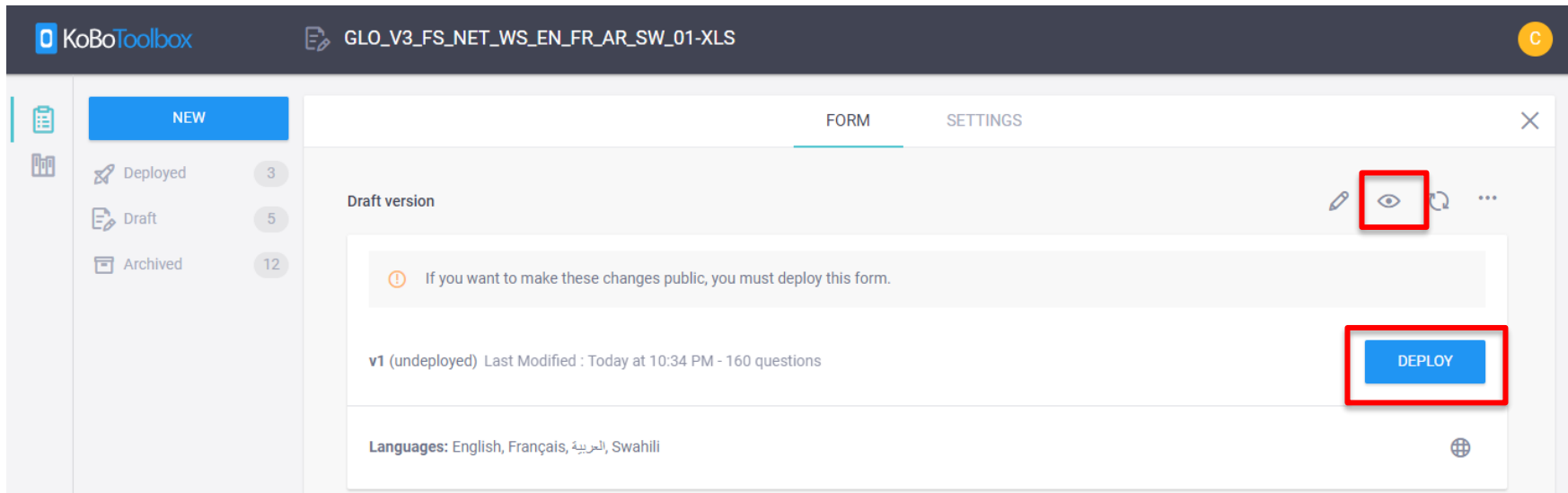
Deploy forms in Kobo (1)

- Click on **“New”**, **“Upload an XLSForm”** and then upload the SENS XLS form.
- Name your project in Kobo Toolbox and click on **“Create Project”**.

The screenshot displays the Kobo Toolbox interface. In the top left, a red box highlights the **NEW** button. A modal dialog titled "Create project: Choose a source" is open, showing four options: "Build from scratch", "Use a template", "Upload an XLSForm" (highlighted with a red box), and "Import an XLSForm via URL". Below this, another modal dialog titled "Create project: Project details" is shown, containing fields for "Project Name" (GLO_V3_FS_NET_WS_EN_FR_AR_SW_01-XLS), "Description", and "Please specify the country and the sector where this project will be deployed." with dropdown menus for "Sector" and "Country". A checkbox for "Help KoboToolbox improve this product..." is also present. A red box highlights the **CREATE PROJECT** button at the bottom right of the second dialog.

Deploy forms in Kobo (2)

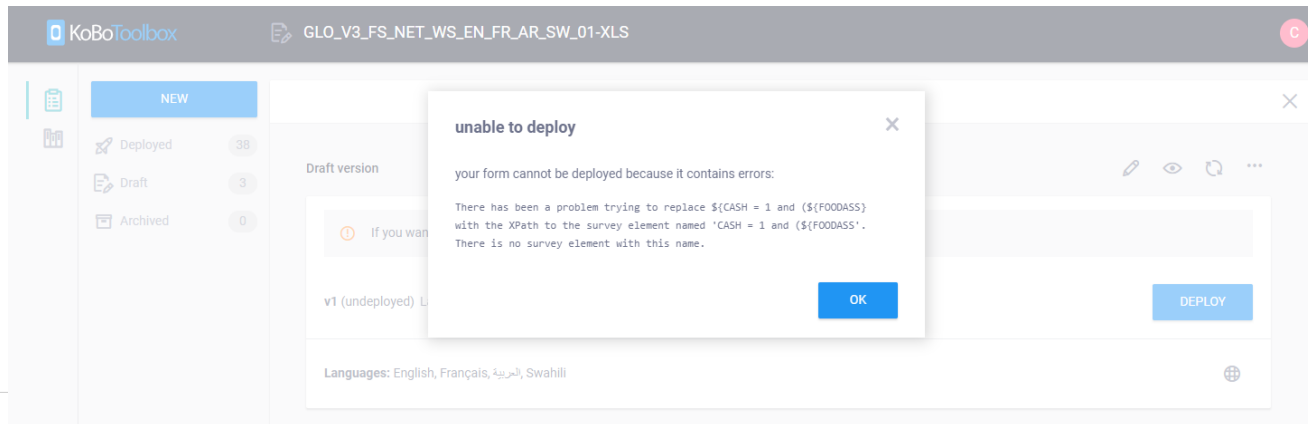
- For your SENS form to be accessible from ODK Collect on the Smartphones/Tablets, you will need to deploy the form by clicking on “**Deploy**”.
- You can also visualise it online (through an Enketo link) by clicking on the “**Preview**” button.



The screenshot displays the Kobo Toolbox interface for a form titled "GLO_V3_FS_NET_WS_EN_FR_AR_SW_01-XLS". The interface is divided into a left sidebar and a main content area. The sidebar shows a "NEW" button and a list of form statuses: "Deployed" (3), "Draft" (5), and "Archived" (12). The main content area has tabs for "FORM" and "SETTINGS". Under the "FORM" tab, there is a "Draft version" section. A warning message states: "If you want to make these changes public, you must deploy this form." Below this, the form details are shown: "v1 (undeployed) Last Modified : Today at 10:34 PM - 160 questions". At the bottom, the supported languages are listed: "English, Français, العربية, Swahili". In the top right corner of the form view, there are icons for edit, preview (eye icon), refresh, and a menu. The "DEPLOY" button is prominently displayed in a blue box with a red border.

Deploy forms in Kobo (3)

- You can check if there are any errors on the **xls form online validator** (one error at a time) <https://getodk.org/xlsform/>
- Also, if there is an error in your XLS Form, **Kobo Toolbox** will inform you when you will attempt to deploy it.
 - It tells you where the error is and **one at a time**.
 - Once this (and all potential other) error(s) corrected, you will be able to deploy your form.
 - In the example below, a bracket is missing at the relevancy $\${CASH} = 1$
 - Please consult the IM officer or HQ if the bug cannot be fixed.

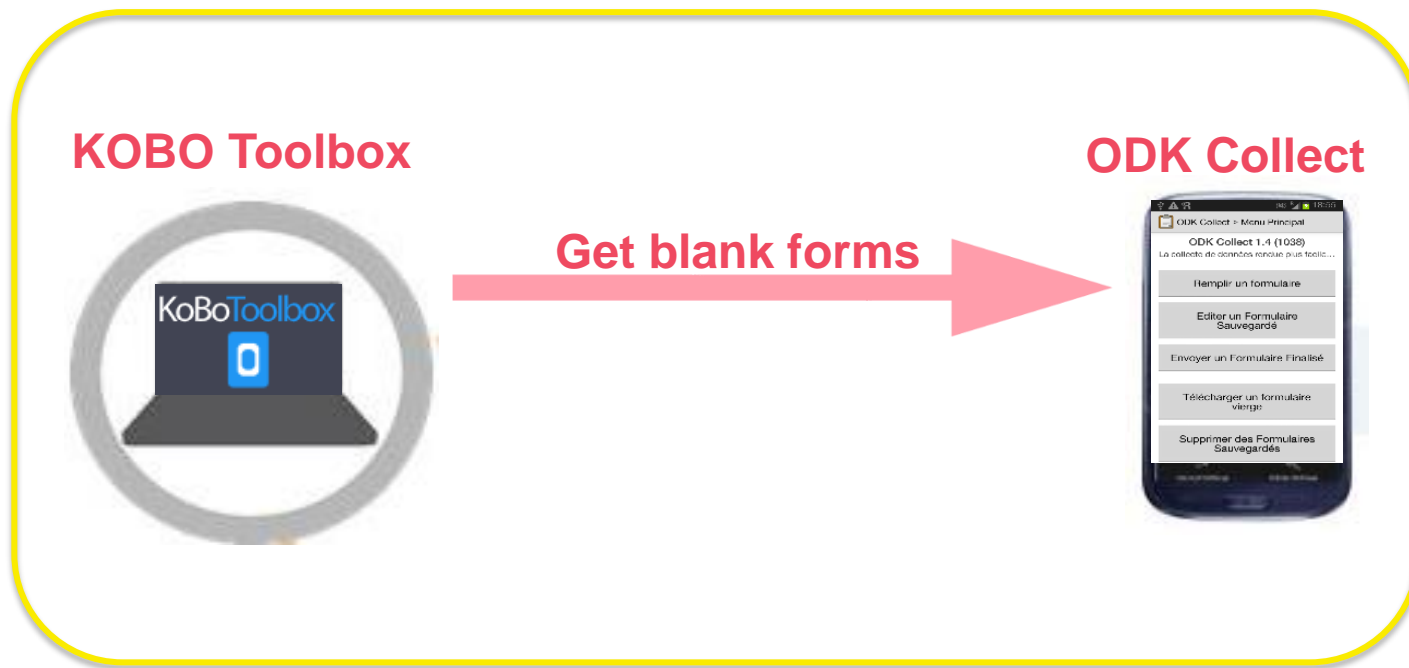


Sharing your project

- You can easily share your project with another Kobo user (on same server):

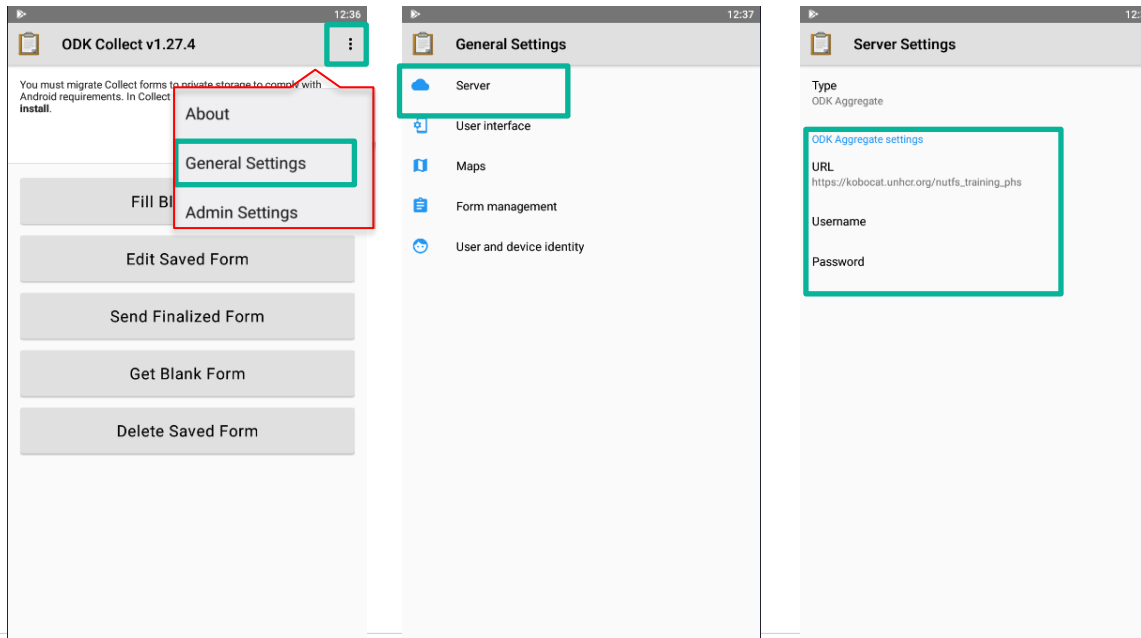
The screenshot displays the Kobo Toolbox interface for a project titled 'GLO_V3_FS_NET_WS_EN_FR_AR_SW_01-XLS'. A 'Sharing Permissions' dialog box is open, showing the user 'nutfs_training_phs' as the owner. The dialog lists various permissions: View form, Edit form, View submissions, Add submissions, Edit and delete submissions, and Validate submissions. A red box highlights the 'GRANT PERMISSIONS' button at the bottom of the dialog. In the background, the project actions menu is visible, with a red box highlighting the three-dot menu icon and another red box highlighting the 'Share this project' option.

Get the Form (1) - Kobo Toolbox



Get the Form (2) - Connect to Kobo Toolbox

- Click on “General Settings”, “Server” and enter your account’s on Kobo Toolbox **URL, username and password**.



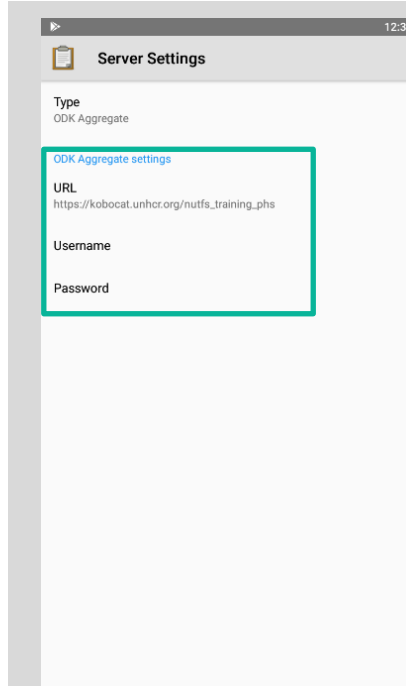
Structure of the URL:

the URL from the UNHCR Kobo Toolbox server will always have the following structure:

“https://kobocat.unhcr.org/[username]”

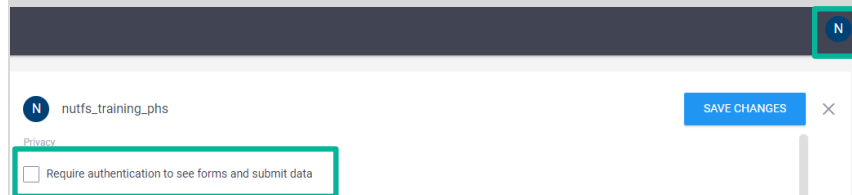
Get the Form (3) - Connect to Kobo Toolbox

- To make sure that enumerators will **only have to enter the URL** (and not the username and password as well) on their phones you need to check the **settings on the Kobo Toolbox server**.
- Click on the symbol in the upper right hand side of your Kobo Toolbox screen, choose “**Account Settings**” and then make sure the option “**Require authentication to see forms and submit data**” is not ticked.
 - This way, enumerators will only need the URL in order to access the forms
 - If this option is ticked on Kobo Toolbox, they will have to enter all the credentials: URL, username AND password.



The screenshot shows the 'Server Settings' screen in Kobo Toolbox. At the top, it says 'Type ODK Aggregate'. Below that, there is a section titled 'ODK Aggregate settings' which is highlighted with a red box. This section contains three fields: 'URL' with the value 'https://kobocat.unhcr.org/nutfs_training_phs', 'Username', and 'Password'.

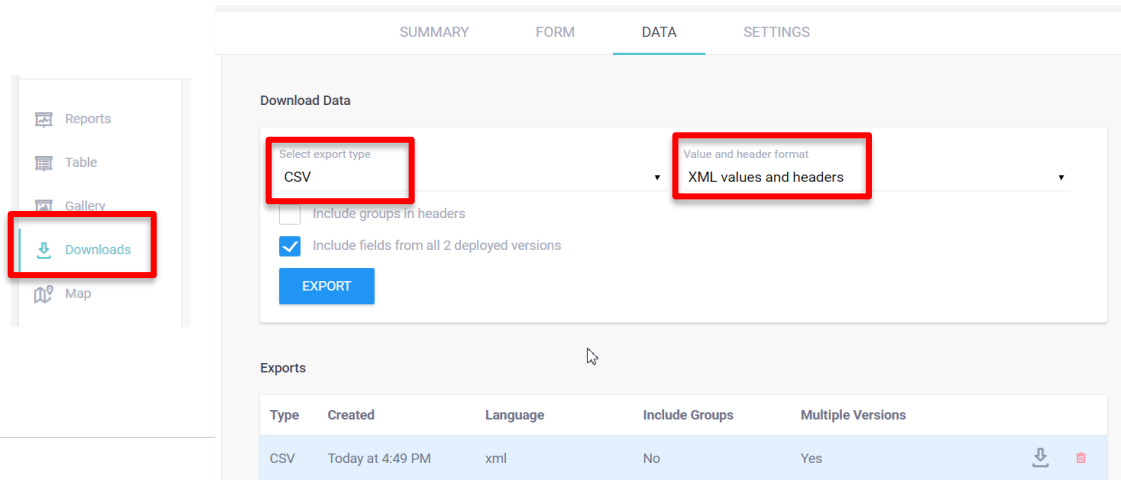
Kobo Toolbox





The screenshot shows the 'Account Settings' screen in Kobo Toolbox. At the top, there is a header with a blue circle containing a white 'N' and the text 'nutfs_training_phs'. To the right of this header is a blue button labeled 'SAVE CHANGES' and a close icon. Below the header, there is a section titled 'Privacy' which is highlighted with a red box. This section contains a checkbox labeled 'Require authentication to see forms and submit data', which is currently unchecked.

Exporting dataset from Kobo Toolbox

- You can access and download the dataset by selecting on “**Data**” tab and then click on “**Downloads**”. Always choose “**XML values and headers**.”
- The SENS Mapper analysis tool requires data in “**CSV**” / “**XML values and headers**” format type export.
- Refer to [“Tutorial 2 – Exporting Data for Analysis”](#).



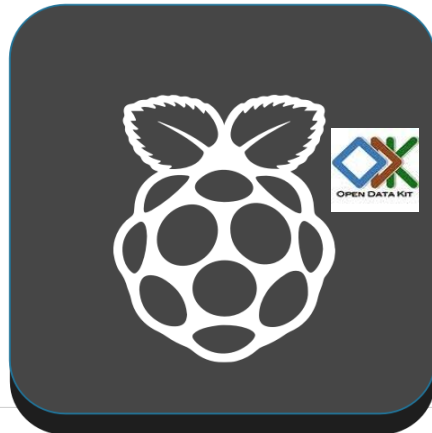
The screenshot displays the Kobo Toolbox interface. On the left sidebar, the 'Downloads' option is highlighted with a red box. The main content area is under the 'DATA' tab, showing the 'Download Data' section. In this section, the 'Select export type' dropdown is set to 'CSV' and the 'Value and header format' dropdown is set to 'XML values and headers', both highlighted with red boxes. Below these, there are checkboxes for 'Include groups in headers' (unchecked) and 'Include fields from all 2 deployed versions' (checked). An 'EXPORT' button is present. At the bottom, the 'Exports' table shows a single row for a CSV export.

Type	Created	Language	Include Groups	Multiple Versions	
CSV	Today at 4:49 PM	xml	No	Yes	 

Introduction - Raspberry Pi

- Aggregate is the platform used to manage the data.
- The Raspberry Pi server has been set up to include all necessary configurations and can be plugged into the computer through USB.
- Consult [“Tutorial 11 – Connecting Mobile Device to Raspberry Pi Aggregate Server”](#) on how to use Raspberry Pi.

Raspberry Pi



Get blank forms



Send filled surveys



ODK Collect



How does Raspberry Pi work? (1)

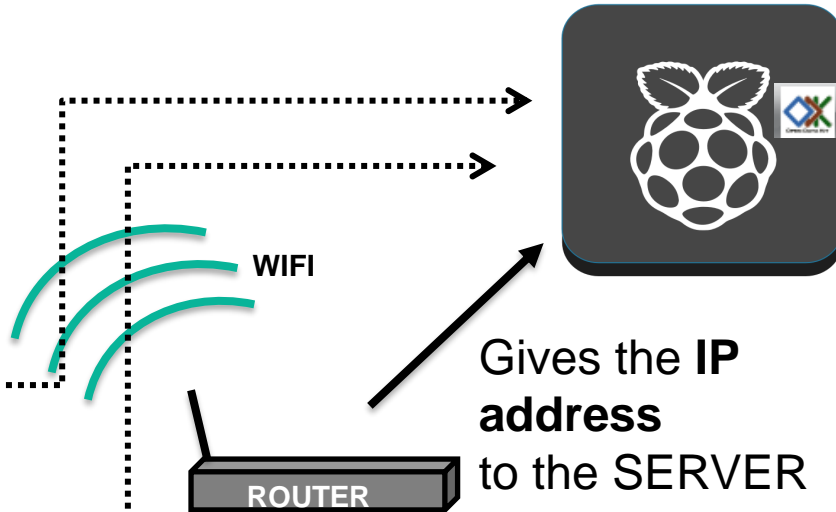
Phones must be connected to the **SAME** wifi to be able to access the server



Web Browser: IP address



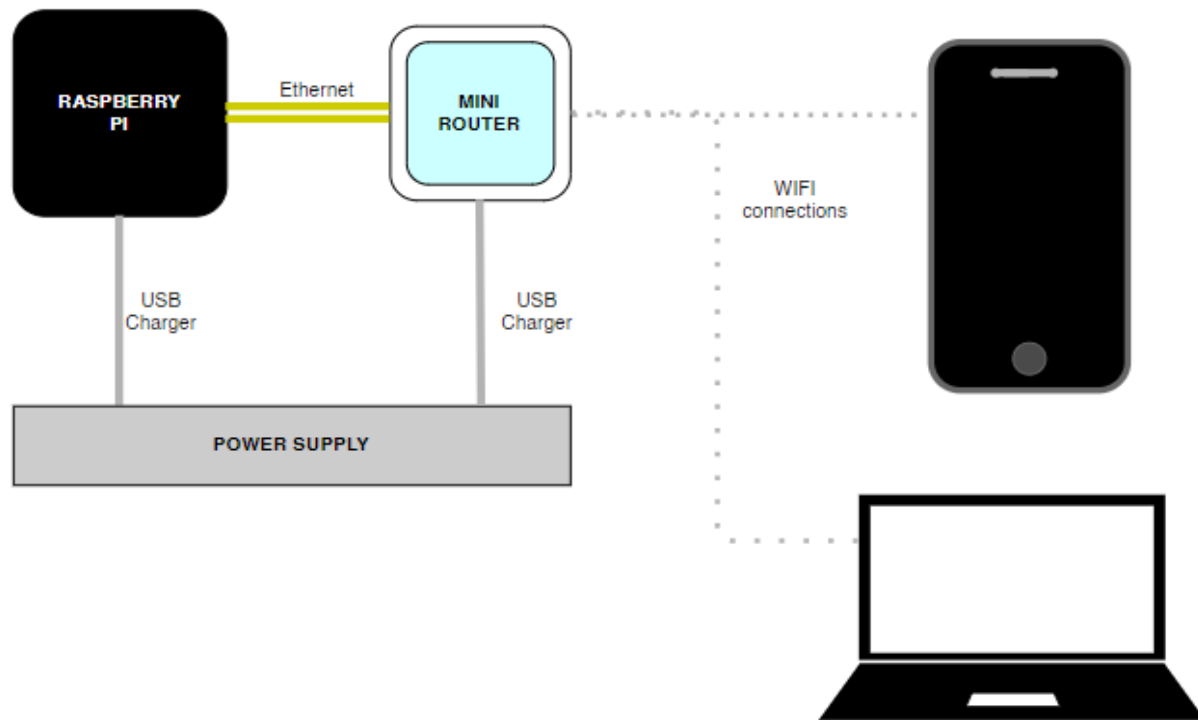
Settings ODK : IP address



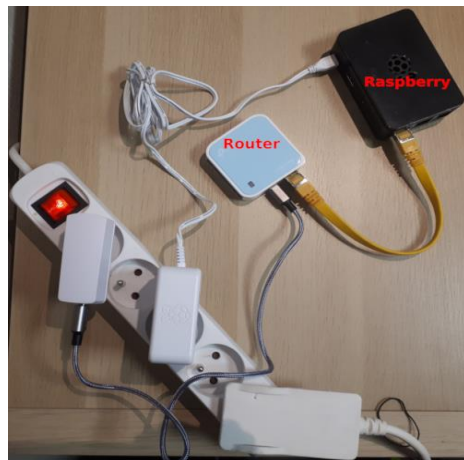
Gives the IP address to the SERVER

With this system, **no need for INTERNET!**

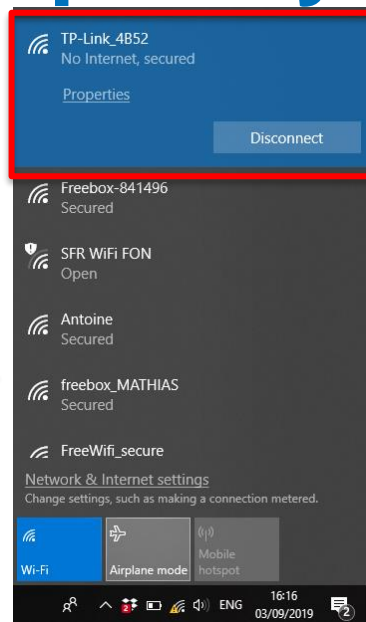
How does Raspberry Pi work? (2)



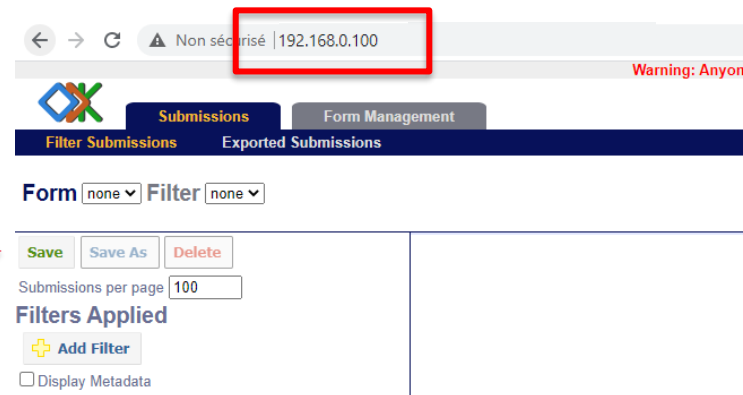
How does Raspberry Pi work? (3)



1) Connect the **Raspberry Pi** and the **router**.



2) Connect your **computer** to the **router**.

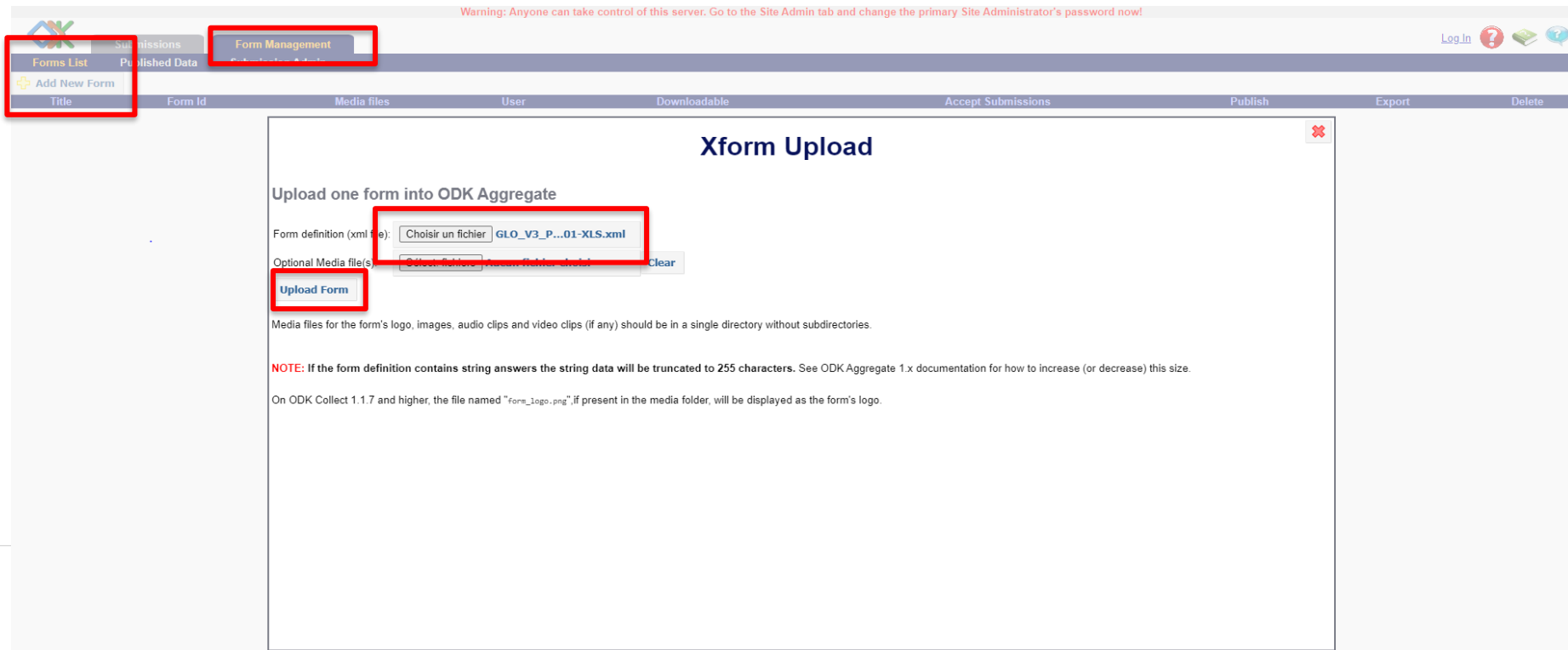


3) Connect to **Aggregate** through the **browser on your computer** by entering always the same **IP: http://192.168.0.100**

Upload a form with Raspberry Pi

- Once connected to Aggregate on your browser, click on “**Form Management**”, “**Forms List**” and on “**Add New Form**”, choose the form in XML format and click on “**Upload Form**”.

Warning: Anyone can take control of this server. Go to the Site Admin tab and change the primary Site Administrator's password now!



The screenshot shows the ODK Aggregate web interface. The top navigation bar includes 'Forms List', 'Add New Form', 'Form Management', 'Submissions', and 'Published Data'. The 'Form Management' tab is selected. Below the navigation bar, there is a table with columns: Title, Form Id, Media files, User, Downloadable, Accept Submissions, Publish, Export, and Delete. The main content area is titled 'Xform Upload' and contains the following text:

Upload one form into ODK Aggregate

Form definition (xml file): GLO_V3_P...01-XLS.xml

Optional Media files(s)

Media files for the form's logo, images, audio clips and video clips (if any) should be in a single directory without subdirectories.

NOTE: If the form definition contains string answers the string data will be truncated to 255 characters. See ODK Aggregate 1.x documentation for how to increase (or decrease) this size.

On ODK Collect 1.1.7 and higher, the file named "form_logo.png", if present in the media folder, will be displayed as the form's logo.

Get the Form – Raspberry Pi

Raspberry Pi



Get blank forms

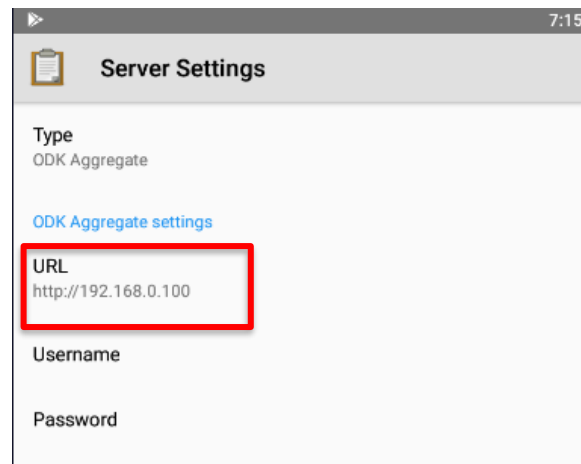
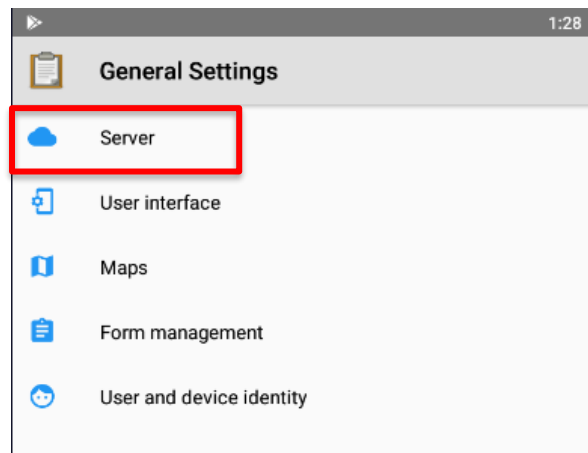


ODK Collect



Connect ODK Collect to Raspberry Pi


- Address to enter in the browser. <http://192.168.0.100>, all Raspberry Pi servers have been set up for this address, when being used in combination with the mini-router provided with them.
- This is the SAME address that must be entered in the phones on ODK Collect.






Manage the data with Raspberry Pi

- In order to visualise and manage your data, select **“Submissions”** and **“Filter Submissions”**. You can then visualise all your data entries in a list.
 - To visualise them entirely one by one, click on **“View”** and to delete them one by one on the **“X”**.
 - You can also select **“Visualize”** to see the whole dataset in Pie Charts, Bar Graphs or on a Map.

Warning: Anyone can take control of this server. Go to the Site Admin tab and change the primary Site Administrator's password now!



Submissions
Form Management

[Log In](#)




Filter Submissions
Exported Submissions

Form Global V3 SENS Infant and Child Questionnaire 01 Filter none

Visualize
Export
Publish

Save
Save As
Delete

Submissions per page 100

Filters Applied

+ Add Filter

Display Metadata

Previous
Global V3 SENS Infant and Child Questionnaire 01
Next

DeviceID	TimeStartRecorded	TimeEndRecorded	TodayDate	XCHILD	CAMPNAME	CAMP_LABEL	SECTION	ZONE	BLOCK	SURVDAT	CLUSTER	TEAM	HH	SENS_UUID_C	note1	C	UnansweredQsAllCalc	Unanswer
✘		October 30, 2020 2:19:00 PM +01:00					1	1	1	October 30, 2020		1	1	D2020-10-30_C-S-1_Z-1_B-1_T1_HH1	View		0	
✘	315353839399487	October 30, 2020 2:19:02 PM +01:00	October 30, 2020 2:21:39 PM +01:00	October 30, 2020		BBB	BBB BBB	2	2	2	October 30, 2020	2	2	D2020-10-30_C-BBB BBB_S-2_Z-2_B-2_T2_HH2	View		0	

Download the dataset with Raspberry Pi

- In order to download your dataset, under “**Submissions**” and “**Filter Submissions**” click on “**Export**” choose the **type of the dataset (CSV File)** and click on “**Export**”.
- **CAREFUL:** this database will not contain data from repeat groups (HH members, Children, Women). In order to obtain those, use Briefcase such as in the past.
- Refer to “[Tutorial 2 – Exporting Data for Analysis](#)”.

Warning: Anyone can take control of this server. Go to the Site Admin tab and change the primary Site Administrator's password now!

Log In ?

Submissions Form Management

Filter Submissions Exported Submissions

Form Global V3 SENS Infant and Child Questionnaire 01 Filter none

Visualize Export Publish

Save Save As Delete

Submissions per page 100

Filters Applied

Add Filter

Display Metadata

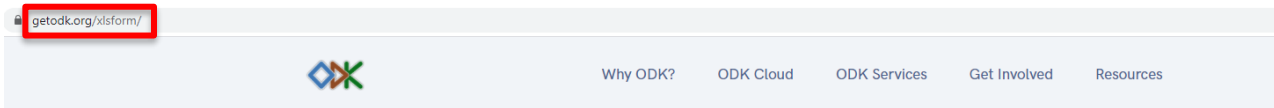
Previous Global V3 SENS Infant and Child Questionnaire 01 Next

DeviceID	TimeStartRecorded	TimeEndRecorded	TodayDate	XCHILD	CAMPNAME	CAMP_LABEL	SECTION	ZONE	BLOCK	SURVDAT	CLUSTER	TEAM	HH	SENS_UIID_C	note1	C	UnansweredQsAllCalc	Unanswered
		October 30, 2020 2:19:00 PM +01:00					1	1	1	October 30, 2020		1	1	D2020-10-30_C-S-1_Z-1_B-1_T1_HH1			View	0
315353839399487	October 30, 2020 2:19:02 PM +01:00	October 30, 2020 2:21:39 PM +01:00	October 30, 2020		BBB	BBB BBB	2	2	2	October 30, 2020		2	2	D2020-10-30_C-BBB BBB_S-2_Z-2_B-2_T2_HH2			View	0

Form: GLO-V3-PH-ICF-EN-FR-AR-SW-01 Type CSV file filter: none Export

From XLS Form to XML

- In order to obtain your XLS form in XML format use the **xls form online validator** at <https://getodk.org/xlsform/> . Upload your XLS Form, click on “**Submit**” and on “**Download XForm**”.



XLSForm Online v2.x

Convert an XLSForm into a form that you can upload to ODK Aggregate or temporarily preview in a browser.

A screenshot of the XLSForm Online v2.x upload interface. It features a file selection box with the text 'File: Choisir un fichier' and 'GLO...LS.xlsx'. Below the box is a blue 'Submit' button. The version number 'v2.0' is displayed at the bottom right of the interface.

XLSForm Online v2.x

Convert an XLSForm into a form that you can upload to ODK Aggregate or temporarily preview in a browser.

A screenshot of the XLSForm Online v2.x interface after clicking the 'Submit' button. The file selection box now shows 'Aucun...r choisi'. Below the box is a blue 'Submit' button. At the bottom, there are two buttons: 'Download XForm' (highlighted in a red box) and 'Preview in browser'.