

How Do I Do Simple Synchronization with Dropbox

Summary

This step-by-step article describes how to synchronize your data and applications between CSPro and Dropbox. This article describes simple synchronization. See the CSPro helps for advanced synchronization options.

When using mobile devices for a survey or census it is important to be able to transfer data collected in the field back to the head office. This allows for faster processing and analysis as well as better monitoring of the progress of the field operation.

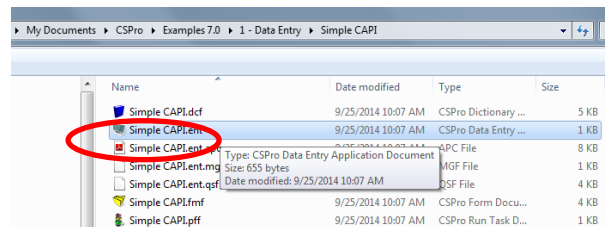
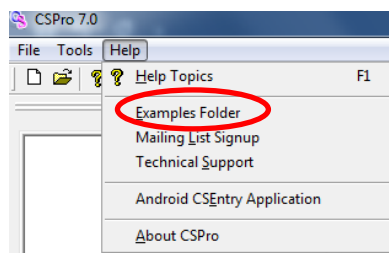
In CSPro, transferring data between devices in the field and the head office is referred to as synchronization. CSPro supports data synchronization over the Internet between interviewers' devices in the field and a central server. Interviewers use CSEntry to collect data on tablets, phones, or laptops and then use the Internet to synchronize the data on their devices with a server at the head office or in the cloud. This article focuses on using Dropbox to synchronize.

Requirements

CSPro 7.0 or higher

CSPro Data Entry Application SimpleCAPI.ent

You can find this application in the CSPro examples folder. See the CSPro helps to open the examples folder.

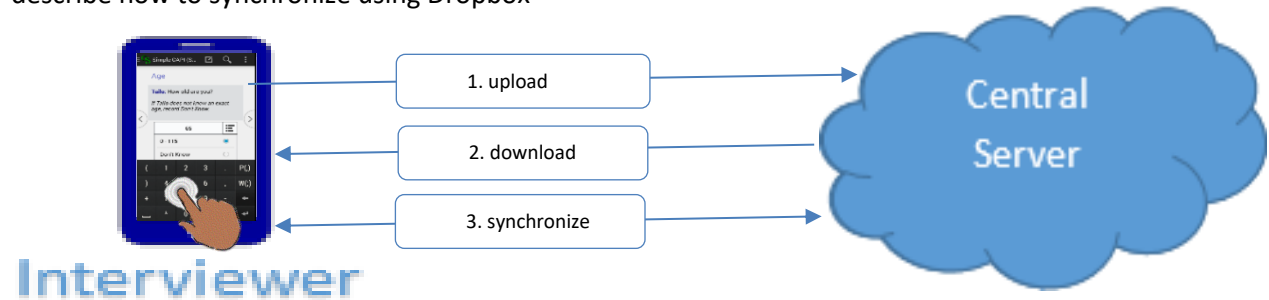


This article assumes you are familiar with the following topics:

- CSPro Data Dictionary
- Creating and implementing a CSPro CAPI Data Entry Application
- Using Dropbox

Description of the Technique

CSPro Synchronization allows the exchange of files between the tablet/phone and an FTP server, web server, or Dropbox directory. You can send the captured data files from your device to the server and download new versions of data entry applications from the server to your device. In addition, if an internet connection is not available, you can exchange files between two Bluetooth devices. Here, we describe how to synchronize using Dropbox

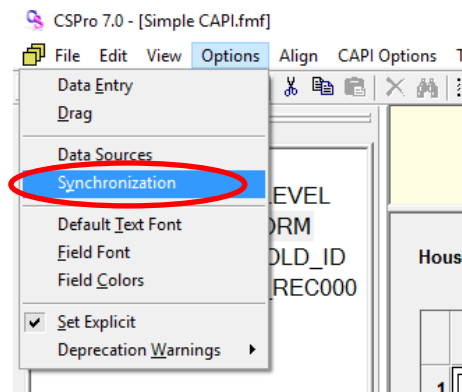


This example assumes that the .pff and .pen files for the application have already been placed on the device and that you have entered data into a file.

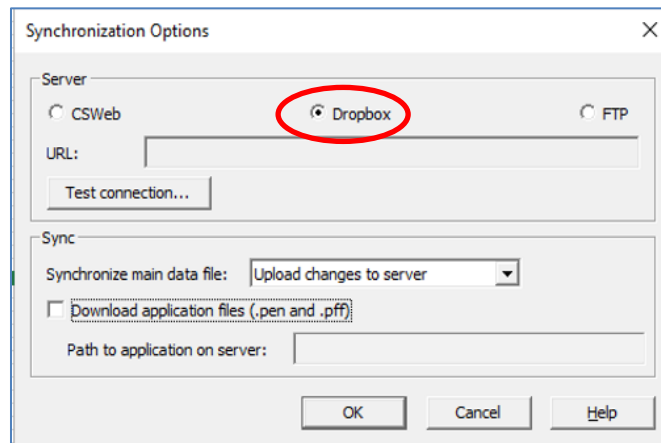
Synchronization using Dropbox

1. Set up the application for synchronization in Dropbox

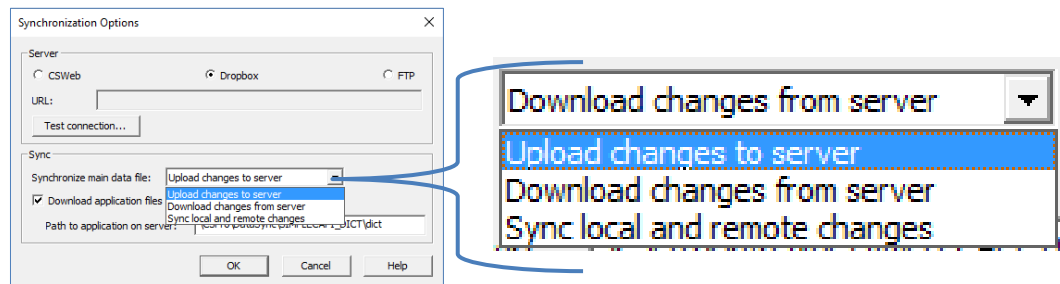
- a. Select Options/Synchronization from the menu



- b. In the resulting dialog box select “Dropbox”



- c. In the “Synchronize main data file” drop down select the type of synchronization you wish to do-

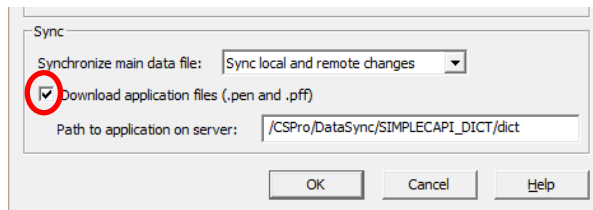


- **Upload changes to server:** Only data that are modified on the device will be sent to the server. No data will be downloaded from the server. This is the most common option for interviewers when all interviewers will work on unique assignments.
- **Download changes from server:** Only receive modified data from the server. Do not upload local changes. This might be used for a supervisor who wants to see what changes interviewers have made but does not want to make changes themselves.
- **Sync local and remote changes:** Send local changes to the server and download changes from the server. This option can be used when multiple interviewers need to work on the same assignments. Note that if both interviewers modify a case at the same time, one will overwrite the changes made by the other.

d. **Download the application (.pen, .pff) files**

Check the **Download application files** box if you want to download the .pen and .pff files from the server to the local device in order to support application updates in the field.

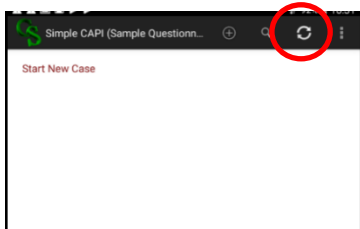
In **Path to application on server** specify the path on the server where the latest versions of the .pen and .pff files are stored. This is used **only if the Download application files** option is checked



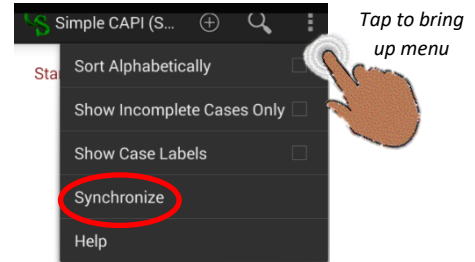
- e. **Copy the .pen and .pff files to the CSEntry folder on the target device** as you normally would when creating or modifying a CSEntry application.

2. Synchronizing from the device

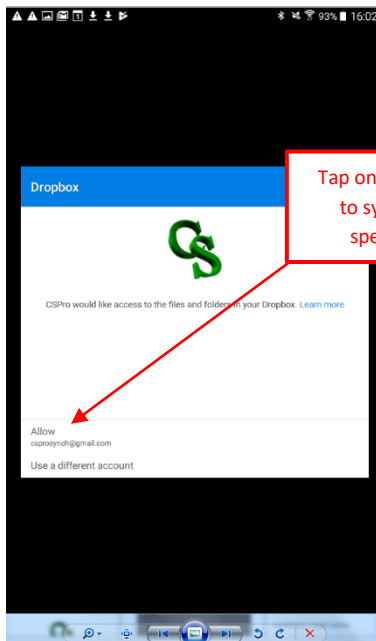
After following the above steps, the application on the device is ready for synchronization. After entering data simply tap on the synchronization icon or select “Synchronize” from the menu. Synchronization can only be launched from the case listing view; “Synchronize” cannot be run while entering case data.



You will see either the synchronize icon or synchronize will be on the menu. Which one you see depends on the device. On larger screens the icon will appear. On smaller screens, you will need to go to the menu to synchronize.

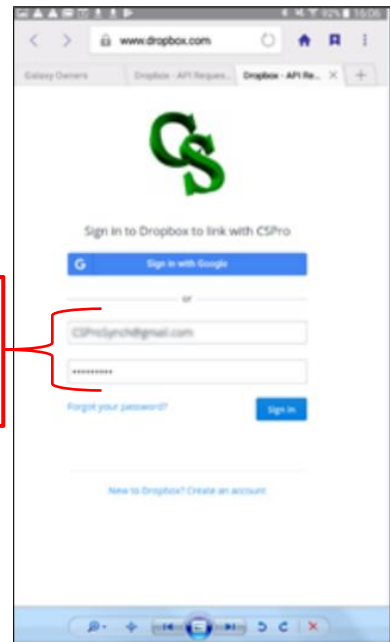


Once you tap “Synchronize”, CSPro will transfer data to/from Dropbox based on the selected specification. The first time you synchronize, you will get the Dropbox authorization dialogs. This is done only for the first synchronization. After that, the authorization is saved on the device.

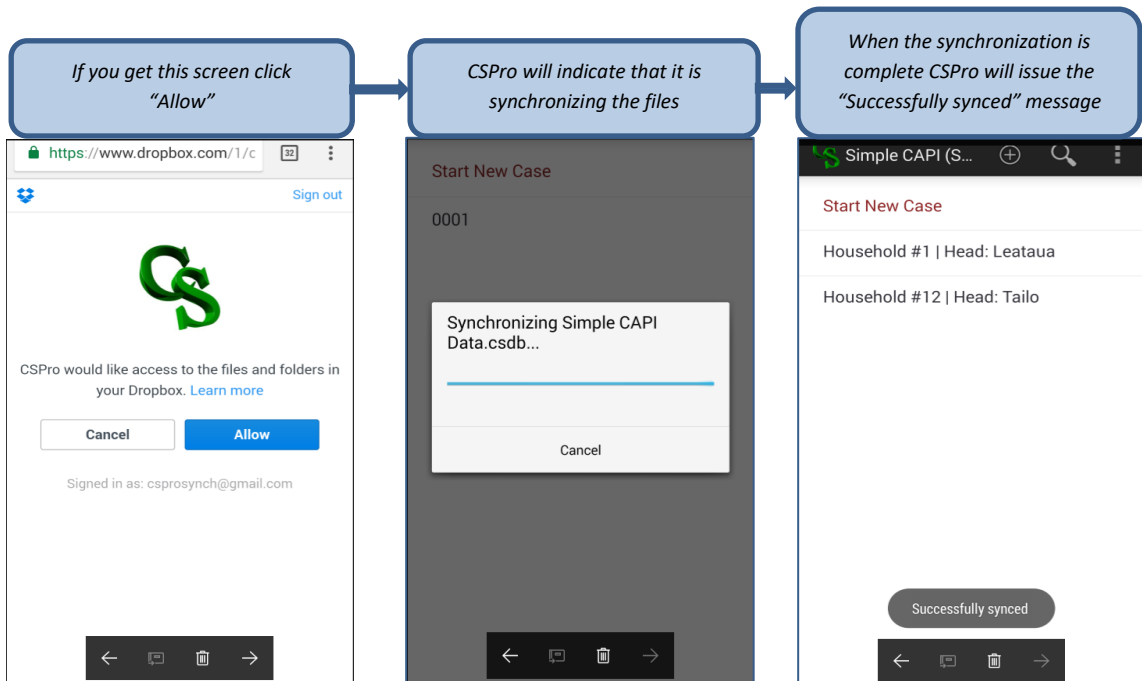


Tap on “Allow” for CSPro to synchroize to the specified account

Then enter the user/password information in the authorization dialog and sign in to Dropbox

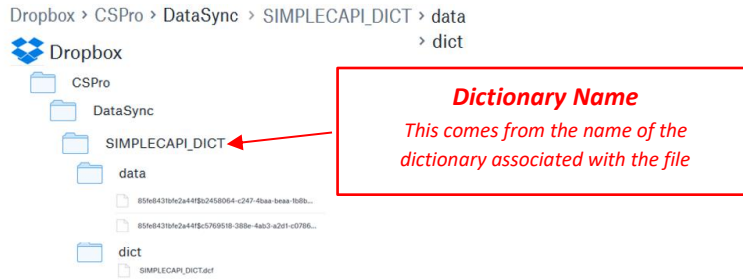


Logging in/out of Dropbox through the browser has no effect. CSPro only uses the credentials you entered for the initial connection to Dropbox.



3. Dropbox folder structure

The first time you synch with DropBox, CSPro will create the following folder structure

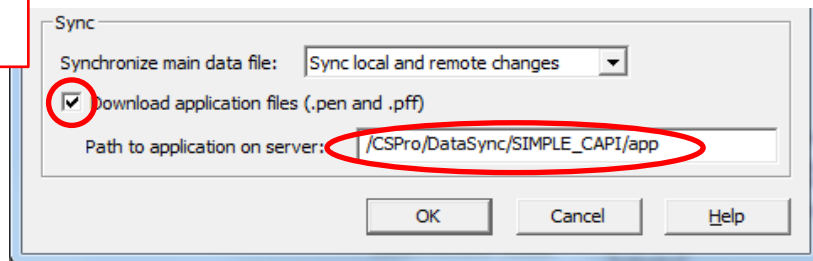


and place the data in the “data” subfolder.

If you plan on downloading the application from the survey to the devices, create a folder for the application files and place the application files (.pen, .pen, and any reference files) in that folder. In the below example, we create folder “/CSPro/DataSynch/SIMPLE_CAPI/app” for the application files

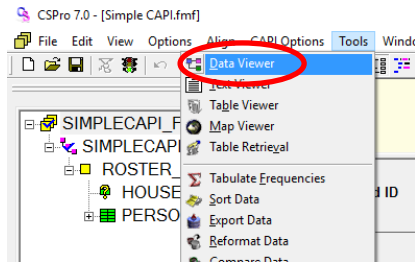


If “Download application files (.pen and .pff)” is checked, the application is downloaded from the specified folder to the device.

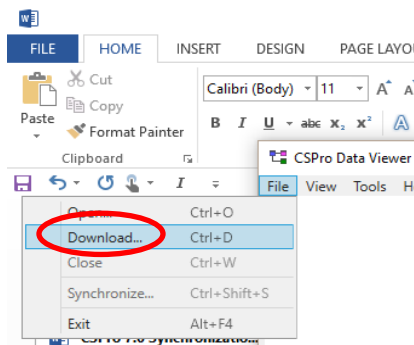


4. Getting the data from Dropbox

To get data from Dropbox use the use the Data Viewer tool from the tools menu

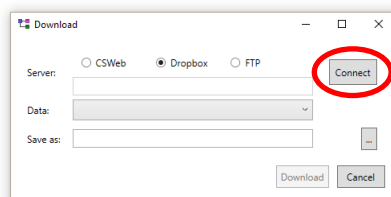


a. From the file menu of the Data Viewer select “Download”

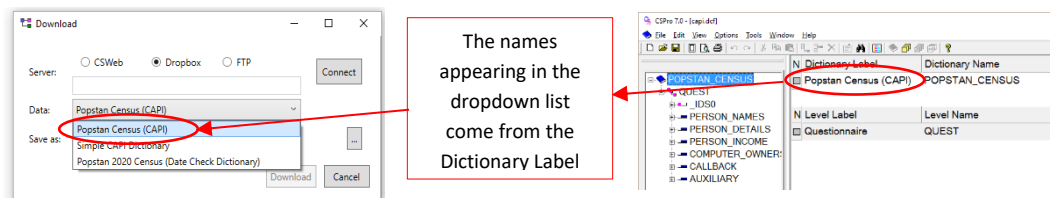


b. In the resulting dialog box

i. Select “Dropbox” and click on the “Connect” button.

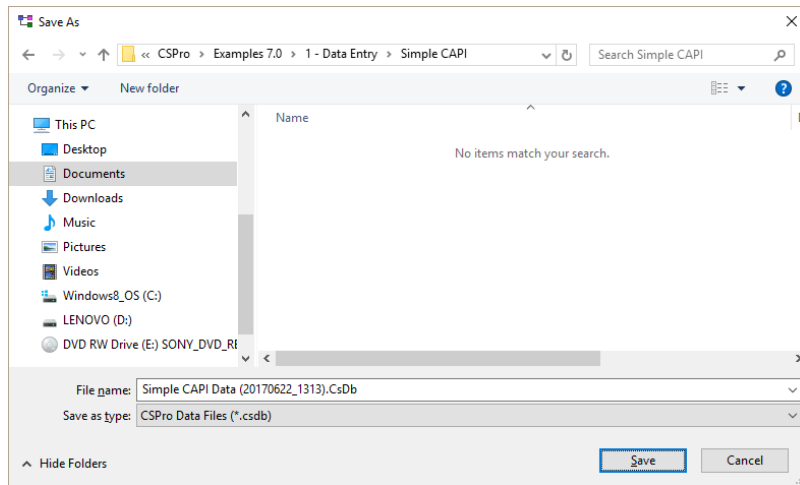


ii. CSPro will populate the “Data” dropdown using the data file list from Dropbox

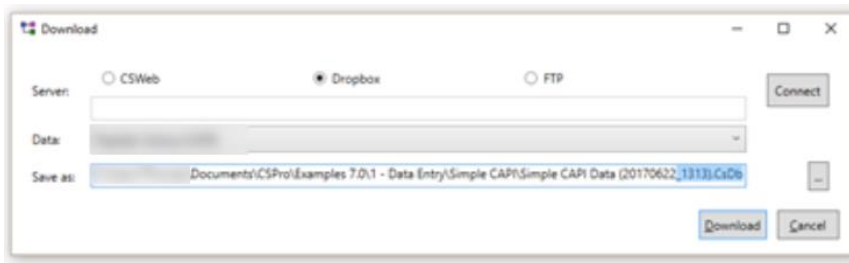


iii. Select the dictionary label associated with the files you wish to download

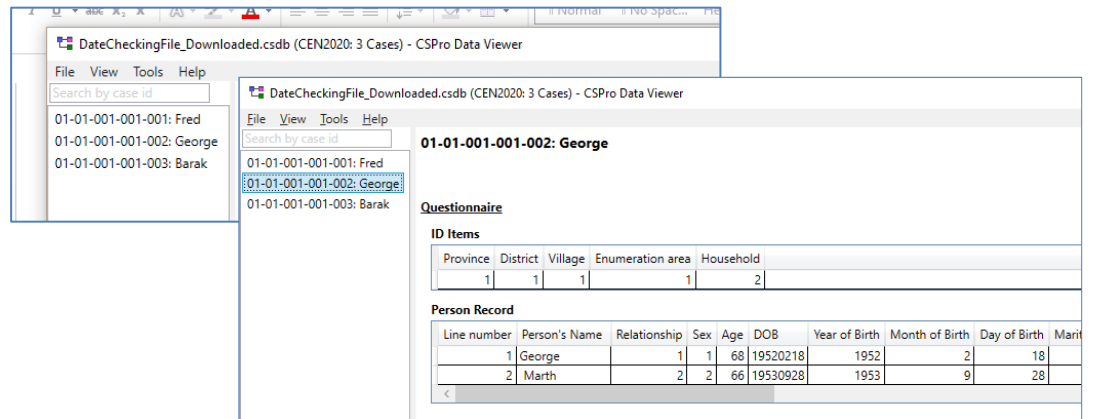
- iv. In “Save As”, navigate to the folder in which to store the file and give the file a name. Click the “Save” button.



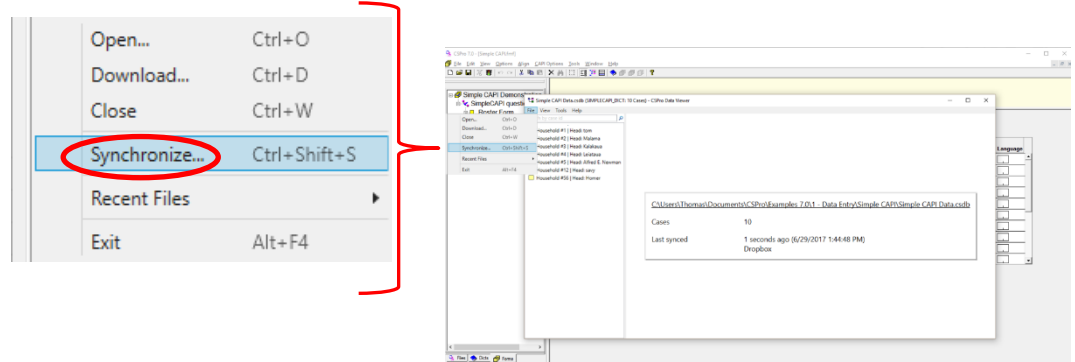
- v. The download dialog box will appear



- vi. Click “Download”. CSPRO will download the file to the specified folder/file name and will display the contents of the file.



- vii. Once you have downloaded the file, to get updated data you can open the csdb file again in DataViewer and choose “Synchronize” instead of “Download”. This should be faster since it will only download cases that were updated since the file was last synced.



Notes

- When CSPro stores data in Dropbox it stores the data in a format specific to CSPro. CSPro uses this format to allow synchronization at the case level. The only way to access these data is using the Data Viewer tool or using synchronization from a CSPro application.
- CSPro Data Viewer populates the “Data” drop down using the Dictionary Label. Design data labels so the source (application) can be easily identified and is not ambiguous.

References

www.dropbox.com

CSPro Helps

Properties

This article applies to ...

- *Data Entry*
- *CSEntry*
- *CAPI (Computer Assisted Personal Interviewing)*
- *Synchronization*

Frequently Asked Questions

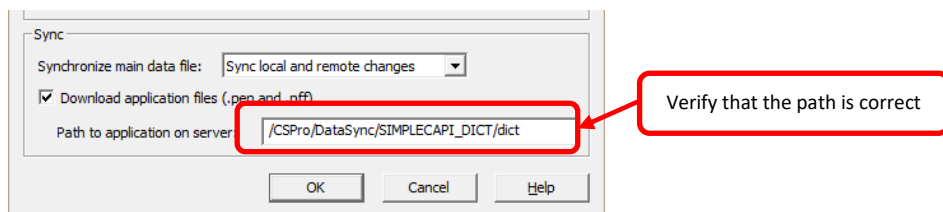
How to I synchronize external data files and other application files?

If you have additional files associated with the application such as image files or lookup files, place them in the Resource Folder. CSPro will package these files in the .Pen file. When you download the application files these files will be included. See the CSPro helps for more details about the **Resource Folder**.

If you have a large lookup or other big files (such as manuals), it is better to use sync from logic to sync each file separately. Placing these files in the pen file can make the pen file very large and slow to update. Using sync from logic, you can download only the changed file. You can find details on sync from logic in the CSPro helps.

Why do I get “Error downloading file xxx”?

The most common reason for this error is that the path to .pen and .pff is incorrect.



I don't see my data file in Dropbox?

CSPro's Dropbox sync does not store a single data file in the Dropbox. Instead, it stores multiple files in the directory CSPro/DataSync/ folder, one for each sync. Because of this, you will not see the data as a single file. In order to obtain the combined data file, use the DataViewer to download the data from Dropbox.

How do I switch to a different Dropbox account?

- **Windows:**
 - *Go to Control Panel*
 - *Credential Manager*
 - *Remove “Dropbox”.*

- *CSPro will with ask for the Dropbox account when trying to synchronize*
- **Android:**
 - *Go to Settings*
 - *Application Manager*
 - *CSEntry*
 - *Click on Clear Cache (this removes the Dropbox information)*
 - *CSPro will with ask for the Dropbox account when trying to synchronize.*