

Newsletter March 2021

Introduction

After a long period of inaction on my part, in which only minor problems were addressed, the Android client was beginning to resemble abandonware. However that all changed recently, as the app faced two critical issues:

1. External storage is available on Android 11 only with a patch, which is due to stop working in August.
2. It was getting increasingly difficult to send invoices by email, due to authentication errors.

Loss of external storage

To fix the first issue, I reintroduced Dropbox support. Previously the app had supported v1 of the API, but v2 proved to be a disaster, mainly because of the appalling documentation. It is no exaggeration to say that it is the worst I have ever come across, in a long career in IT. No programmer would ever tackle it, unless he really had to.

Instead of Dropbox, the emphasis was now placed on external storage. This is an area that can be accessed by both the user and the app. However it is now deprecated, and will soon be withdrawn altogether. Without some way to handle files, the user would no longer be able to back up his database, or use product images.

The only obvious candidates to replace external storage are Dropbox and Google Drive. I use GDrive a lot, but Google is anxious to monetize it, which could be a problem going forward. This is not an issue for Dropbox, and even if I supported GDrive, I would still have to add support for Dropbox as well. So I reluctantly turned to Dropbox v2, in the first instance.

The key authentication process, whereby the user allows my app to use a folder in his account, was not documented at all. The only reference was to a Java console app, which involved the user copying a token from the Dropbox website, and pasting it into the app. It was only after I had deconstructed this nonsense, that I discovered the correct method.

Email authentication problem

Android apps can send emails using a Java package called JavaMail. For a long time I maintained this code on behalf of the developer community, and it is code that I know very well. The big advantage over the traditional method of invoking the Gmail app (or some other mail client) is that no user intervention is required.

This feature was also a security risk, and it formed the basis for most keylogging exploits. Unscrupulous developers also used it to call payphone numbers. It is hardly surprising that Google responded by tightening up on security. It became increasingly difficult to use JavaMail, even when using a newly created Gmail account.

Many users had trouble specifying the SMTP server for their email provider, and would often enter the address of its POP3 server instead. To avoid frequent support requests, I restricted the feature to Gmail accounts. As they became increasingly difficult to use, I added support for Outlook and Yahoo accounts, but these proved to be no better.

I had no choice but to add support for sending emails manually. To my surprise, the Gmail app did not support HTML emails, but after a considerable amount of trial and error, I found that the Outlook app did. I am therefore recommending that all users send their emails manually, using the Outlook app.

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Beta testing

Some users will want to test these new features, and all users will want to check them out before committing to them. I have therefore implemented these new features in a beta release. I have also removed support for two existing features. Both of them were initially attractive, but turned out to be impractical in the long run:

1. Barcode scanning using the camera on a phone.
2. All use of GPS and Google Maps.

There are some additional features that I plan to add to the beta channel:

1. Fixing the size of the app icon.
2. Making all the rectangles rounded.
3. HTML help (work in progress).

and some more that I intend to put to a vote:

1. Not printing zero discounts on invoices.
2. Redesigning the Lines screen.

Summary

There are some major enhancements coming up. More information will follow shortly.