Storage Access Framework

or Yay, new API's!

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What

The SAF makes it simple for users to browse and open documents, images, and other files across all of their their preferred document storage providers. A standard, easy-to-use UI lets users browse files and access recents in a consistent way across apps and providers.

Why

*The SAF makes it simple for users to **browse** and open documents, images, and other **files** across all of their their preferred document storage providers. A **standard**, easy-to-use UI lets users browse files and **access recents** in a **consistent** way across apps and providers.*

Before KitKat

```
Intent intent = new Intent(Intent.ACTION_GET_CONTENT);
intent.setType("image/*");
startActivityForResult(intent, REQUEST_CODE);
```

```
void onActivityResult(int requestCode, int resultCode, Intent data) {
    // check request code and result code
    Uri uri = data.getUri();
    // read it
    InputStream input = getContentResolver().openInputStream(uri);
}
```

09:28

Safdemo

Open with GET_CONTENT

Actie voltooien met

Dropbox

Foto's

Galerij

Samsung Link

Altijd

Slechts eenmaal

09:29

Safdemo

Open with GET_CONTENT

Actie voltooien met

Dropbox

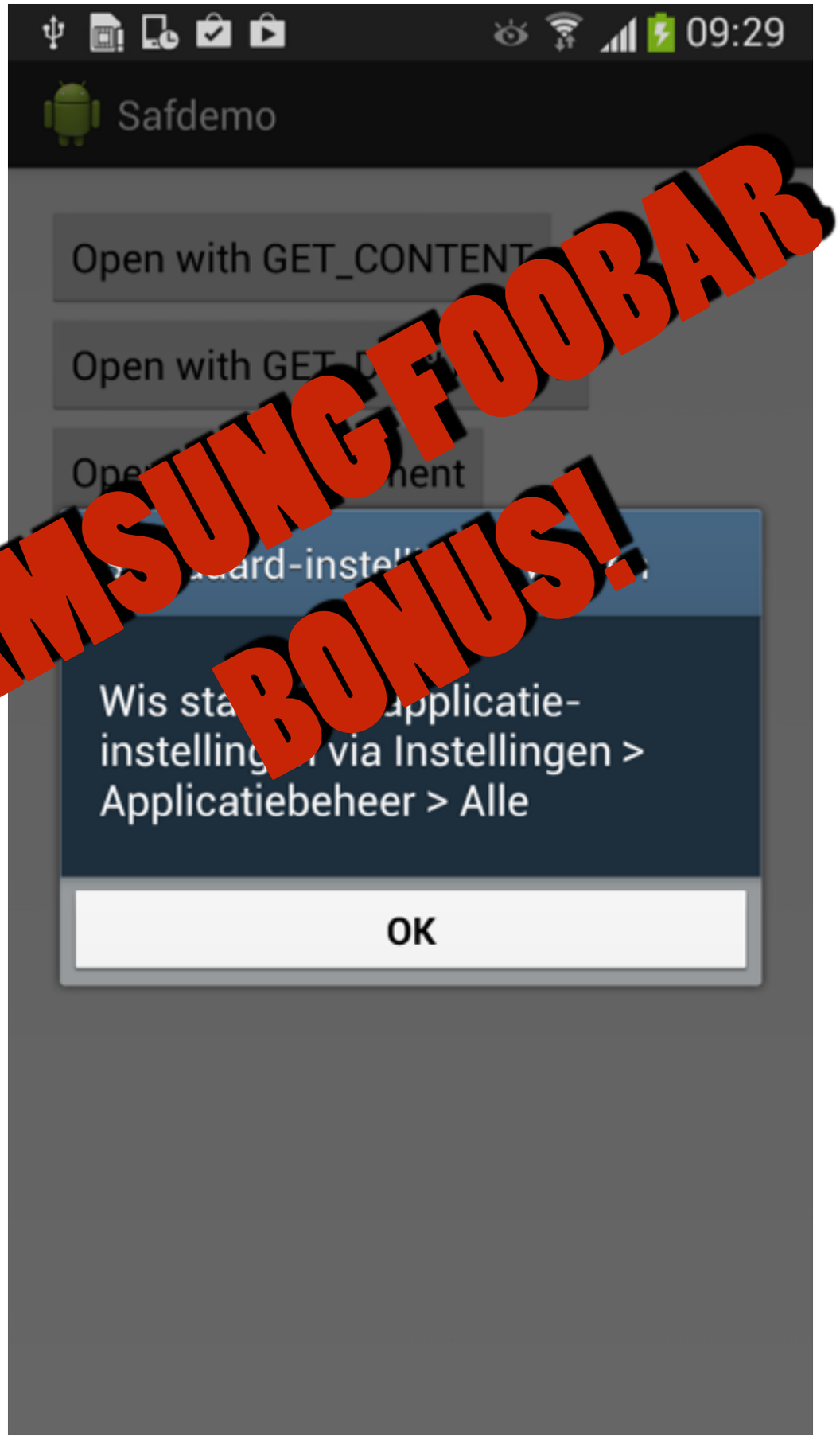
Foto's

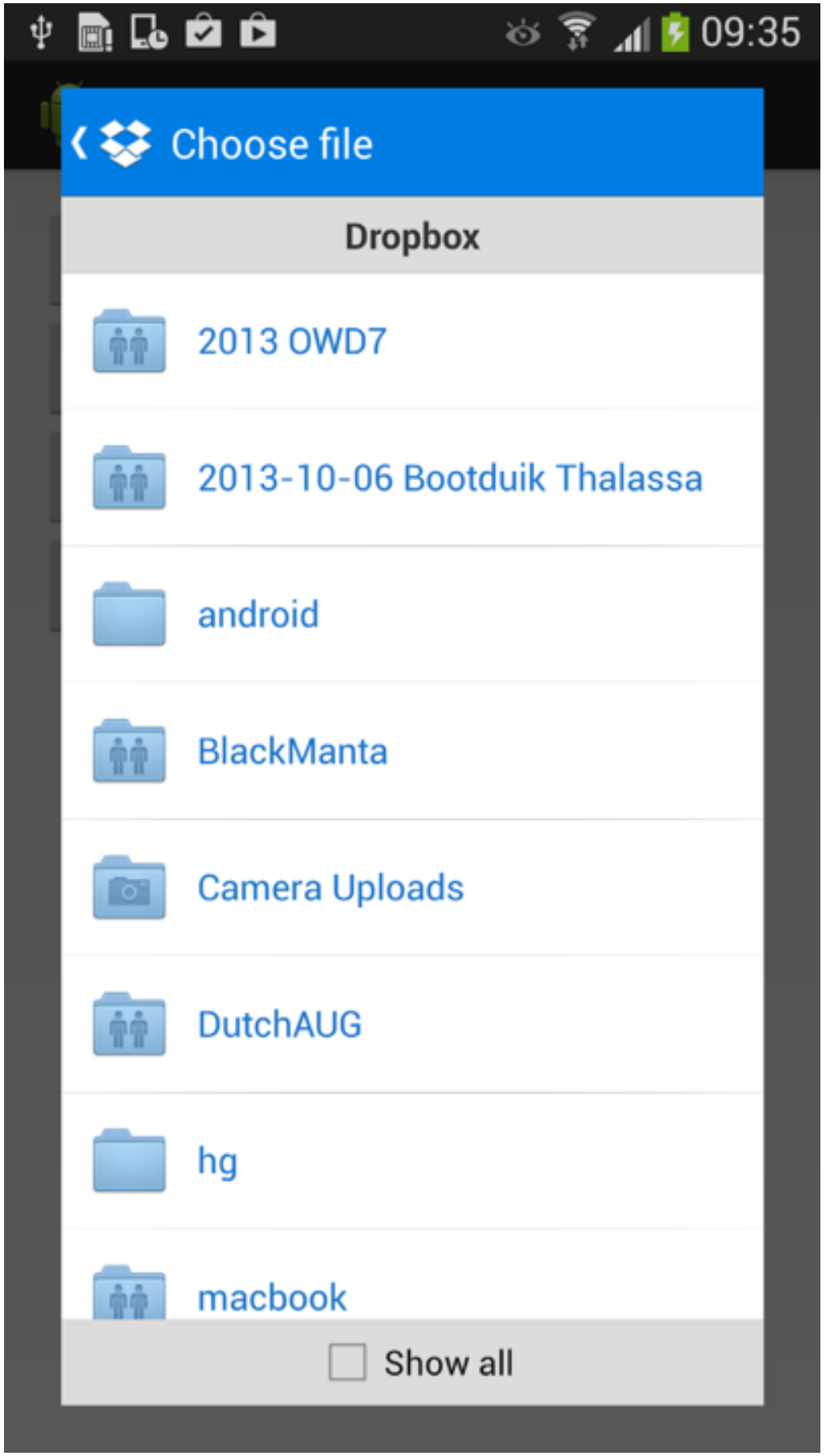
Galerij

Samsung Link

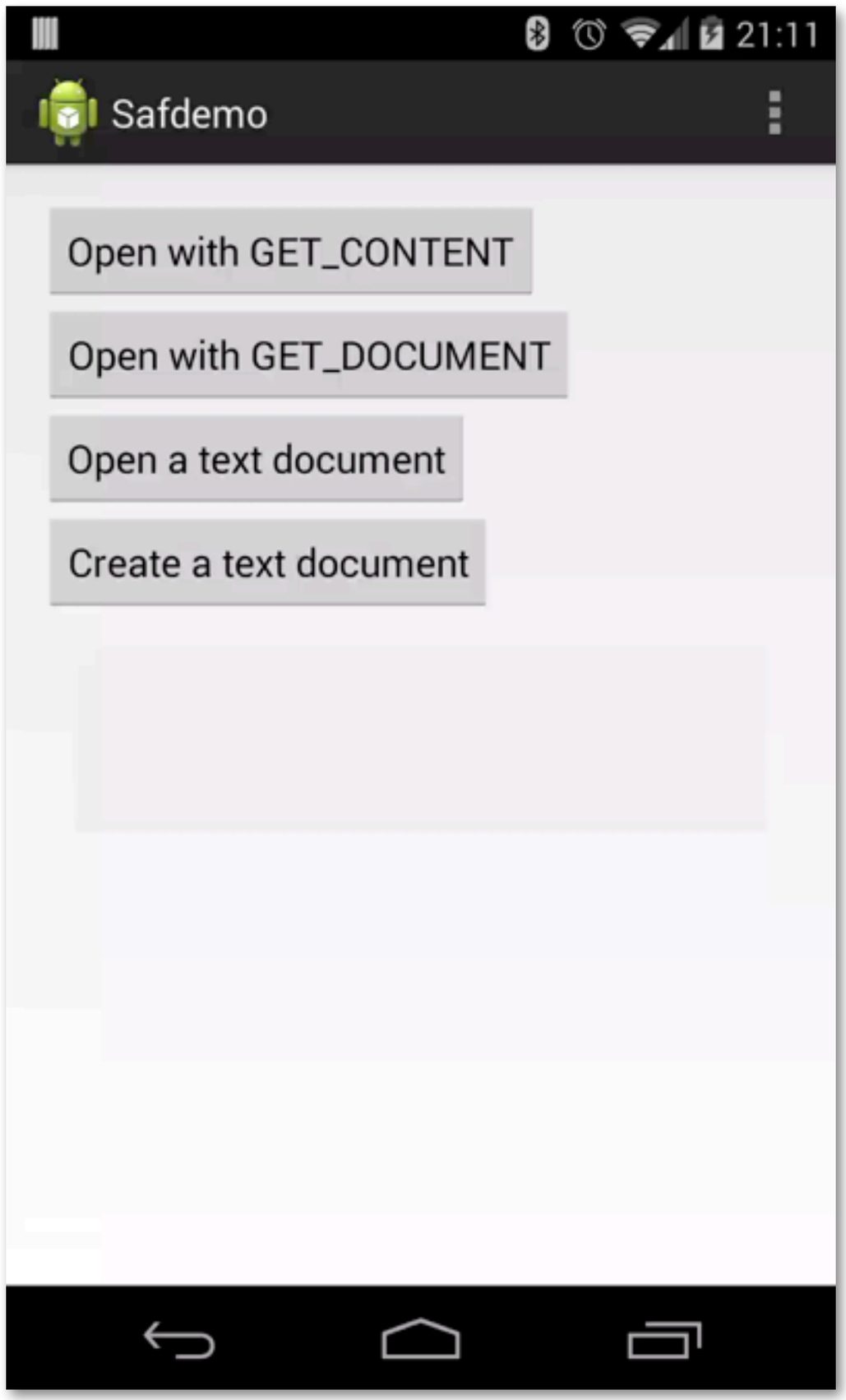
Altijd

Slechts eenmaal


09:29
Safdemo
Open with GET_CONTENT
Open with GET_
Ope ment
ard-instelli
Wis sta applicatie-
instellingen via Instellingen >
Applicatiebeheer > Alle
OK
SAMSUNG FOOBAR
BONUS!


09:35
Choose file
Dropbox
2013 OWD7
2013-10-06 Bootduik Thalassa
android
BlackManta
Camera Uploads
DutchAUG
hg
macbook
Show all

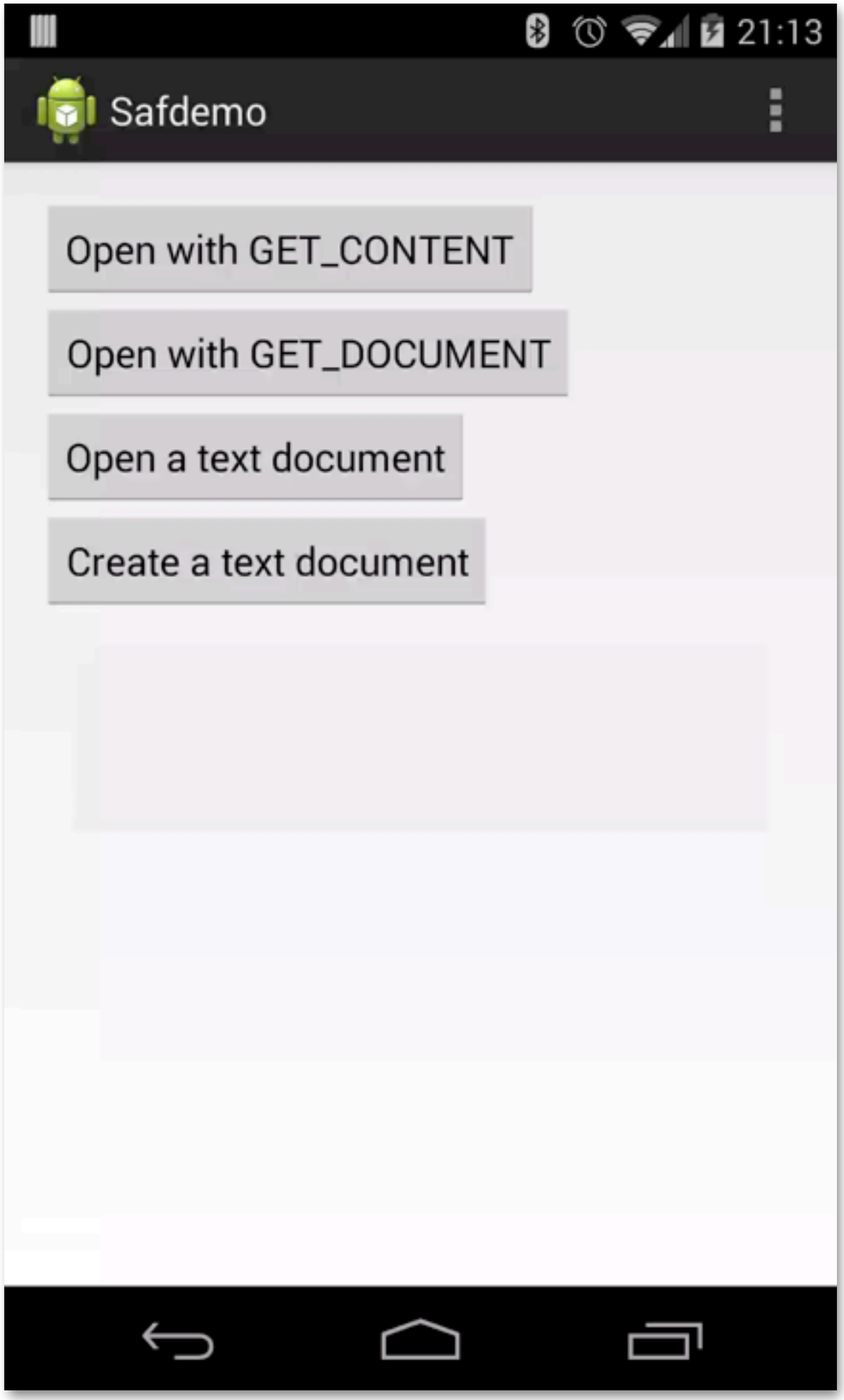
KitKat


21:11
Safdemo
Open with GET_CONTENT
Open with GET_DOCUMENT
Open a text document
Create a text document

ACTION_OPEN_DOCUMENT

```
Intent intent = new Intent(Intent.ACTION_OPEN_DOCUMENT);
intent.setType(“image/*");
intent.addCategory(Intent.CATEGORY_OPENABLE);
startActivityForResult(intent, REQUEST_CODE);
```

```
void onActivityResult(int requestCode, int resultCode, Intent data) {
    // check request code and result code
    Uri uri = data.getUri();
    // read it
    InputStream input = getContentResolver().openInputStream(uri);
}
```


21:13
Safdemo
Open with GET_CONTENT
Open with GET_DOCUMENT
Open a text document
Create a text document

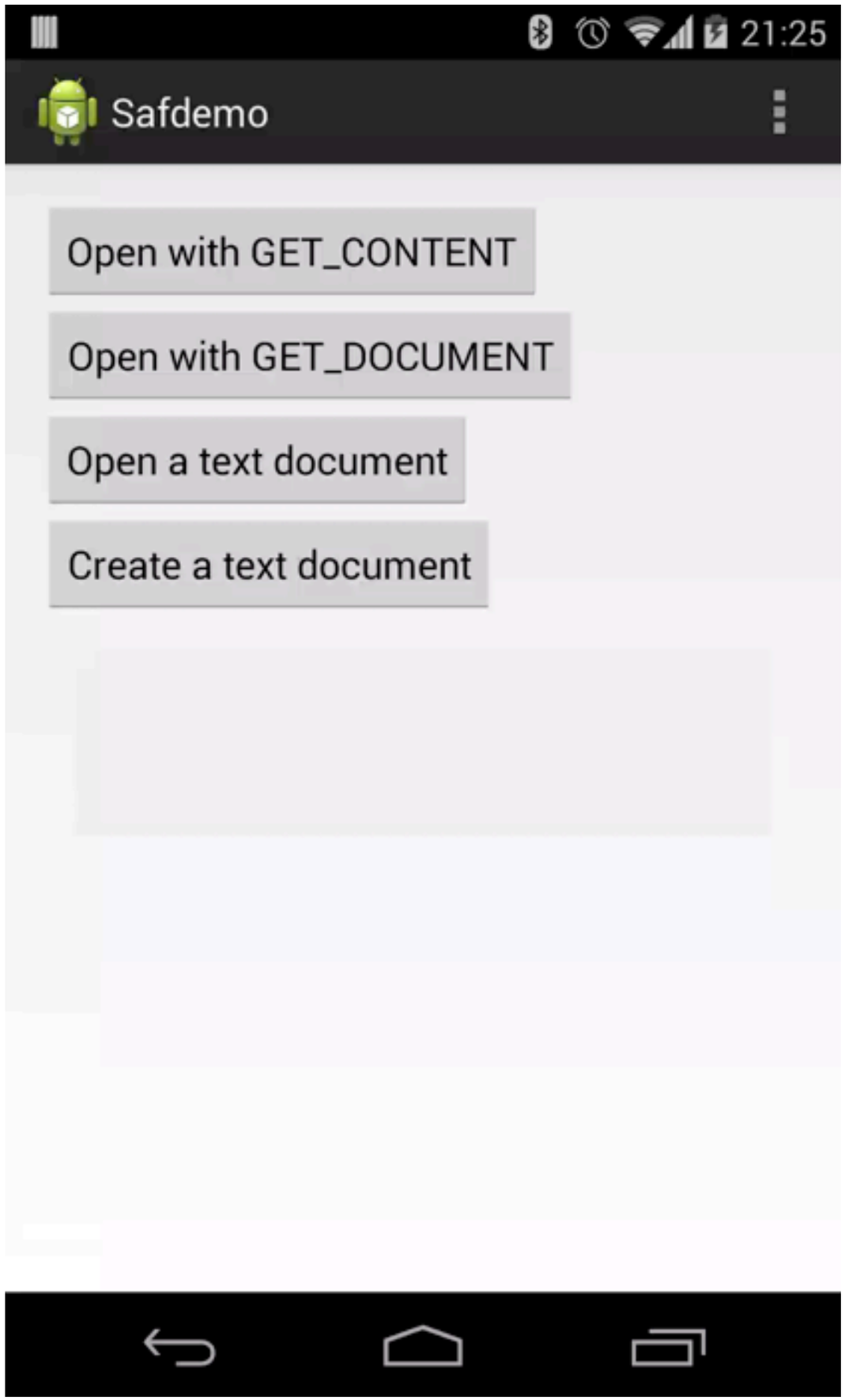
Persistent permissions

“Use ACTION_GET_CONTENT if you want your app to simply read/import data. With this approach, the app imports a copy of the data, such as an image file.

Use ACTION_OPEN_DOCUMENT if you want your app to have long term, persistent access to documents owned by a document provider. An example would be a photo-editing app that lets users edit images stored in a document provider."

```
getContentResolver().takePersistableUriPermission(uri, takeFlags);
```

ACTION_CREATE_DOCUMENT



Document Providers

Based on ContentProviders, subclass DocumentProvider

- queryRoots()
- queryChildDocuments()
- queryDocument()
- openDocument()

New api's on ParcelFileDescriptor as well

Compatibility

Only on API level 19 and up (platform change)

“Enhance" for API >= 19

So...

Existing apps get better UX for free

For “long time relation" apps use GET_DOCUMENT

Implement DocumentProvider for 3rd party apps creating docs in your app (e.g. cloud service)

There will be no backward support for this feature

Learn more

Code
github.com/hvisser/safdemo (soon)

Guide
d.android.com/guide/topics/providers/document-provider.html

Non trivial Document Provider “Vault"
plus.google.com/+JeffSharkey/posts/9BmGb3xbPcA
(also in safdemo)