

In this talk, we will introduce a number of major new features and platforms to the Google Drive SDK. We will discuss what we feel is a revolution in the way developers write collaborative applications. We will also announce a new API to make managing files in Google Drive even easier for developers, replacing some legacy APIs in the process. We will also give out free T-shirts to attendees



About Josh Hudgins

[View full profile](#)

Josh is a Product Manager on the Google Drive team. He is currently focused on the Drive SDK and the Drive Web UI.



About John Day-Richter

[View full profile](#)

John is a lead software engineer on the Google Drive APIs team. He believes online collaboration to be rad and has helped with the collaboration features of several Google Docs products.



Introducing the Google Drive SDK

Josh Hudgins
John Day-Richter



Agenda

- 1 What is Drive?
- 2 Why build an SDK?
- 3 What We've Launched
- 4 Launching Today
- 5 Coming Soon



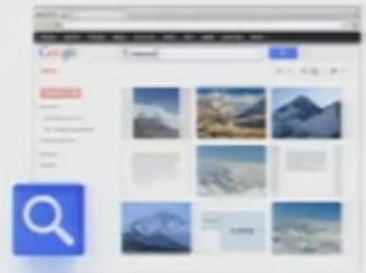
What is Google Drive?



Access anywhere



Collaborate



Search

What is Google Drive?

Google Drive SDK

Access anywhere

Collaborate

Search



Don't just store,
use your files





Helping developers
succeed

SDK v1



Drive API

[illegible]

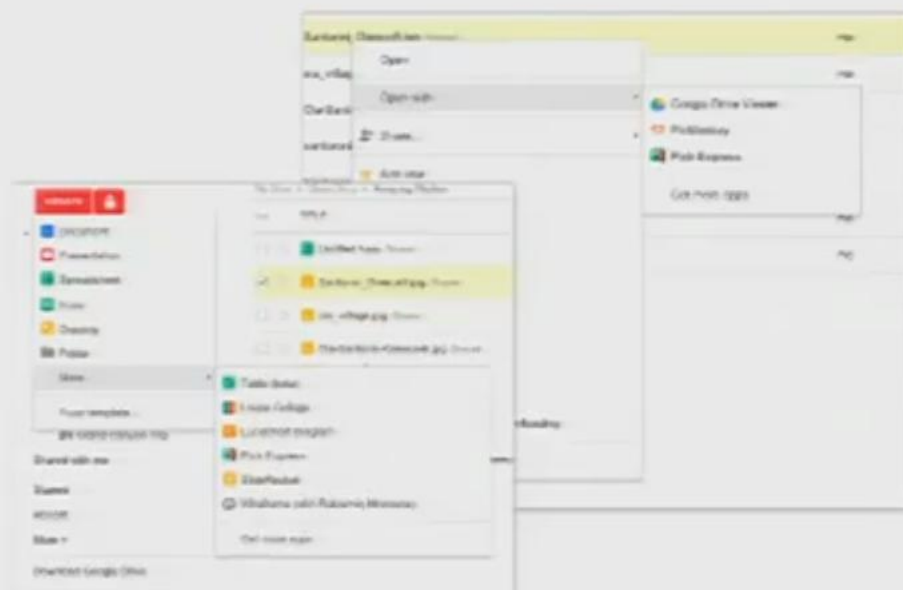
- RESTful API
- OAuth 2
- Client Libraries and samples in 6 languages

SDK v1



Drive API

Drive Apps



- Third party web apps integrated directly into Drive
- Store content in your system or ours
- Create, view and edit your files, all on the web

SDK v1



Drive API



Drive Apps



Chrome Web Store

4

5



- Discover and install Drive apps
- Ratings, reviews, bug reports and analytics
- Install with any browser

SDK v1



Drive API



Drive Apps

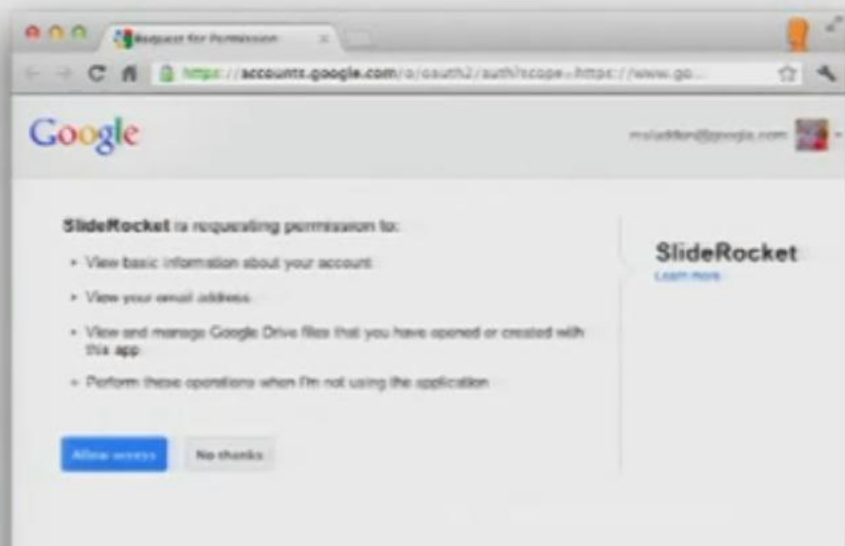


Chrome Web Store



Security

5



- Drive apps can access *only* files that
 - the app itself created
 - the user has explicitly chose to open with the app
- Users are more likely to use apps they trust

SDK v1



Drive API



Drive Apps



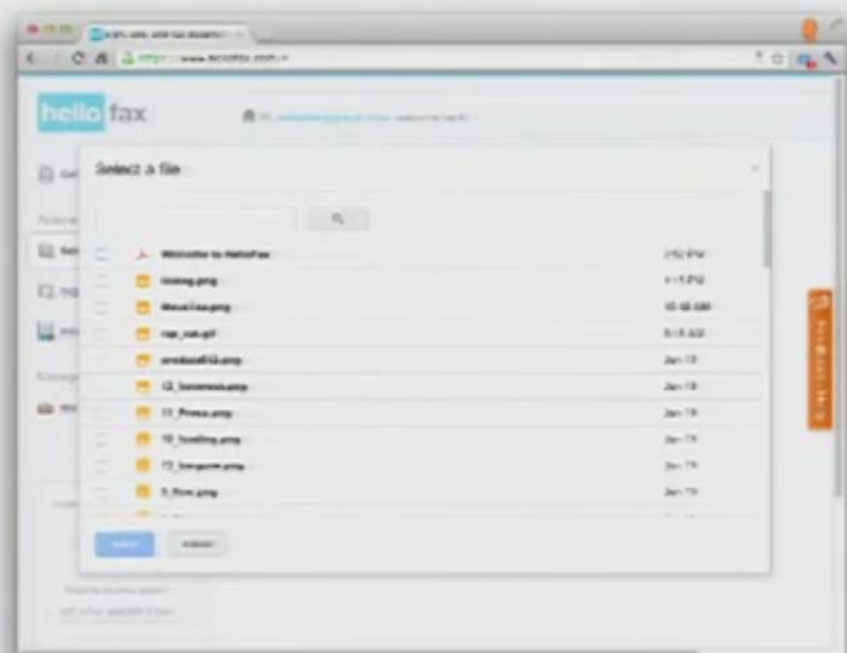
Chrome Web Store



Security



File Picker

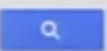


- Easy to use Javascript library to launch a Drive file picker from your app
- Your app automatically gains access to any file chosen



DEMO!!

[link to demo](#)



Josh Demo

0

+ Share



Drive

Sort



CREATE



TITLE

SHARE DATE




[Project Plan.mpp](#)



John Demo Jun 26

- My Drive
- Shared with me
- Starred
- Recent
- More -
- Download Google Drive



No preview available

Download

Enter a description



Search the store

Your Apps

Home

Popular

Trending

Collections

Perfect Date

Soccer

Editor's Picks

Offline Apps

Google Drive

Google+ Games

Business Tools

Education

Entertainment

Games

Lifestyle



Smartsheet Project Managem...

★★★★☆

Gantt



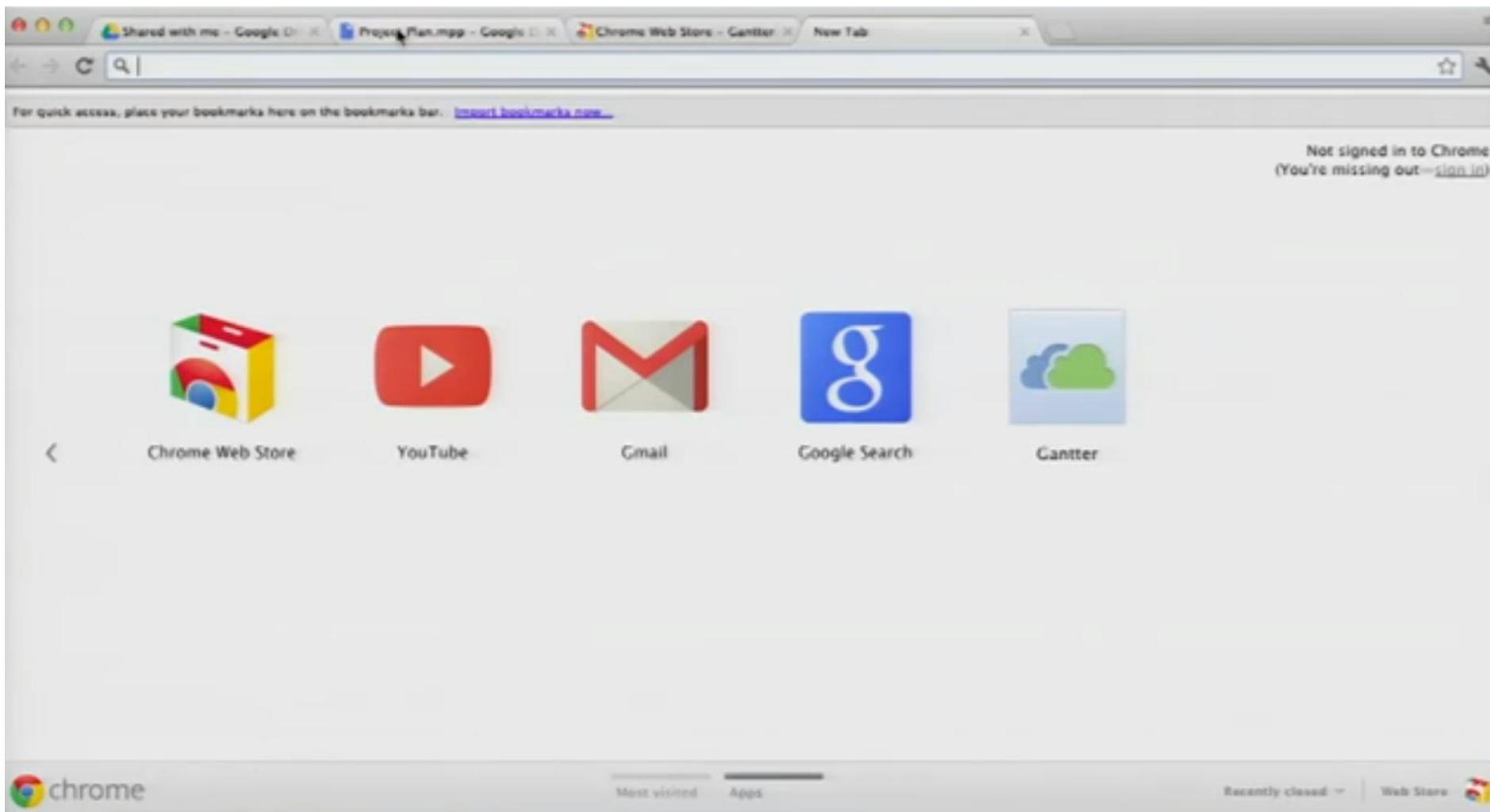
FREE Enterprise Web-based project scheduling app that works with Google Drive and also allows you to open and edit MS Project files.

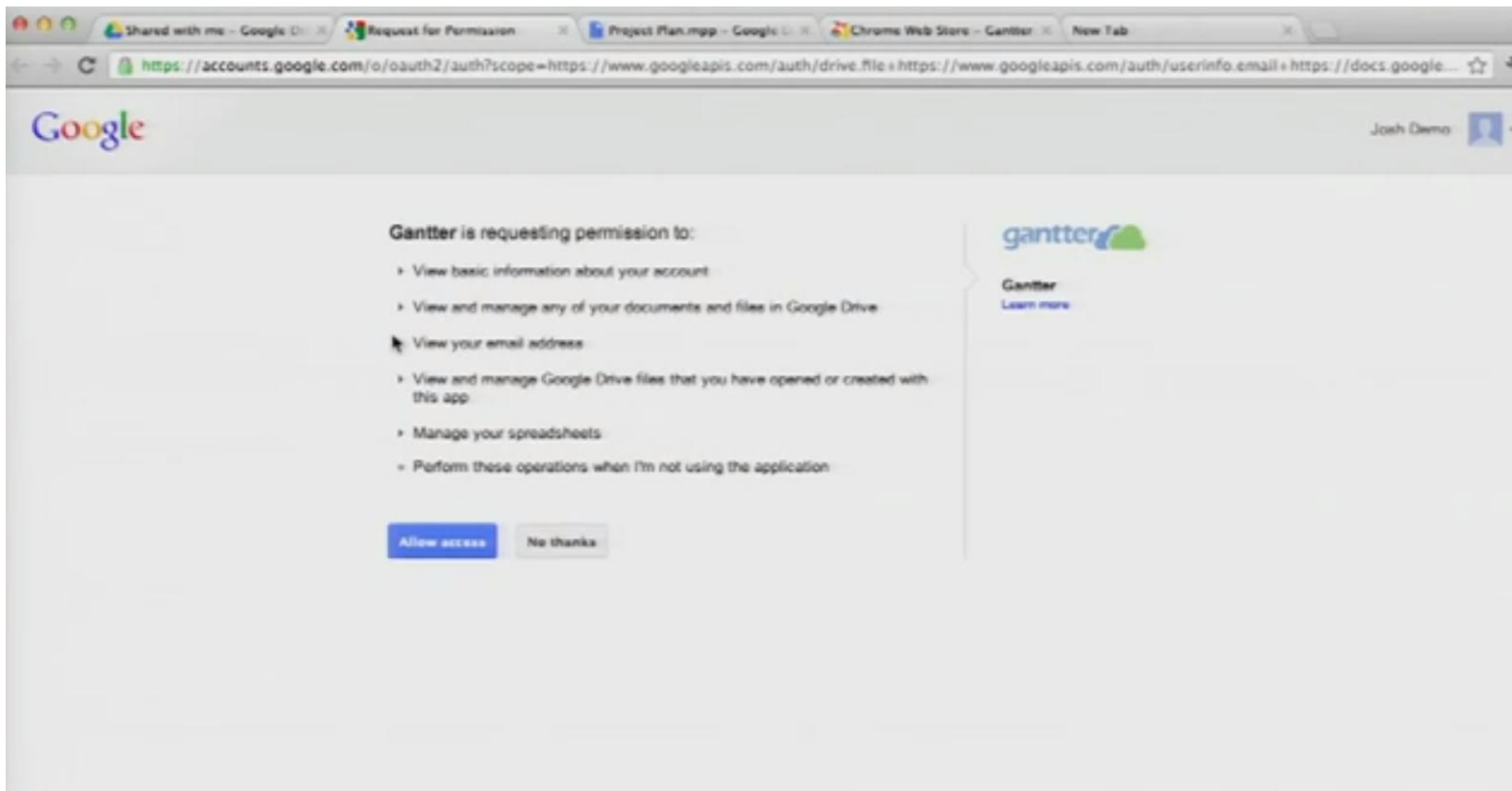
+ ADD TO CHROME



InstallFree Nexus with Micros...

12,268 users





Shared with me - Google Drive | Ganttter.com - web-based project management | Project Plan.mpp - Google Drive | Chrome Web Store - Ganttter | New Tab

https://drive.google.com/?gsessionid=j-xgA-b-jz5fkVloP8o1hQ#shared-with-me

+Josh Search Images Maps Play YouTube News Gmail Drive Calendar More -

Google

Josh Demo 0 + Share

Drive

Take our survey! Sort

CREATE

- Document
- Presentation
- Spreadsheet
- Form
- Drawing
- Folder
- More
- From template...

More

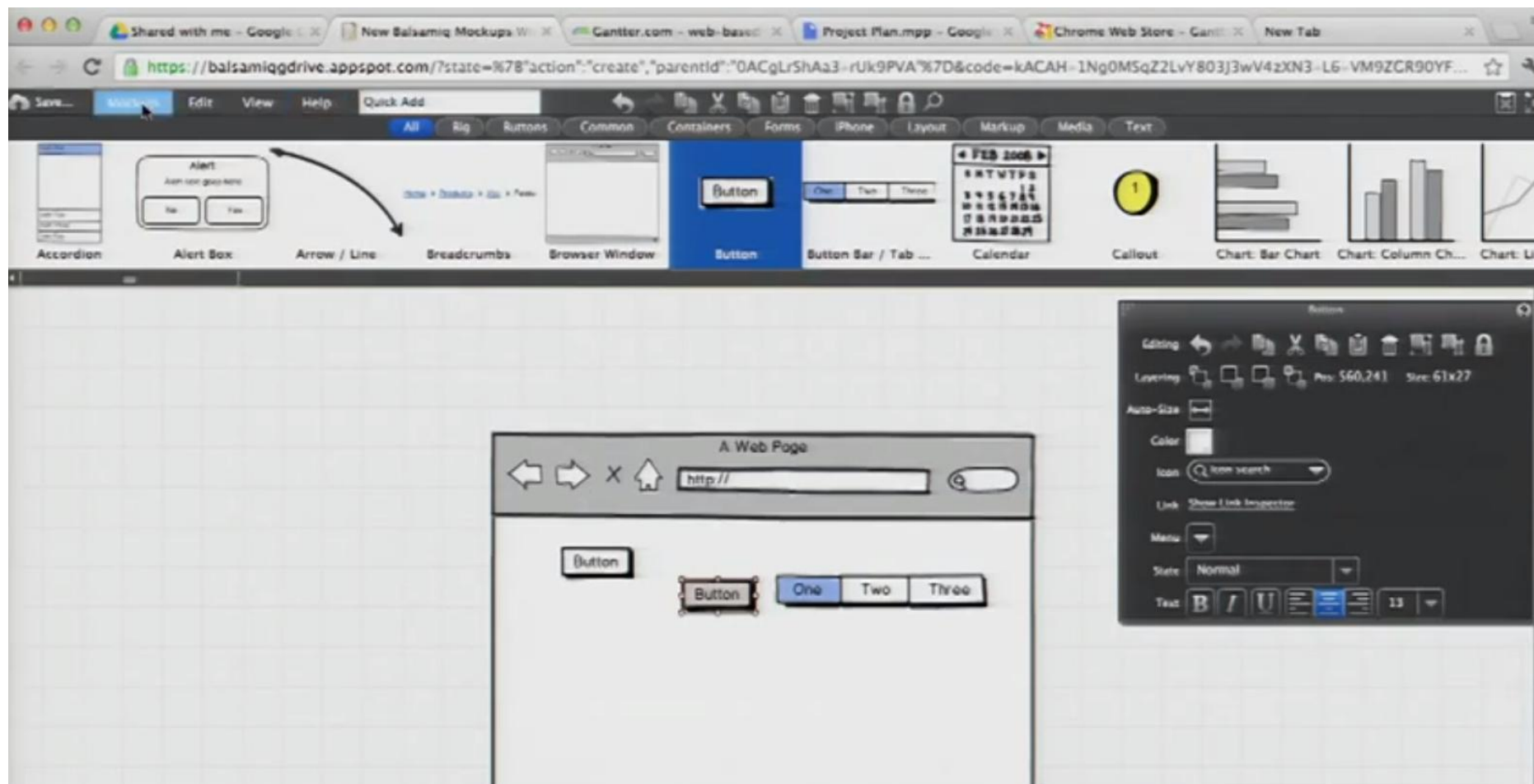
- Table (beta)
- Script
- Ganttter
- HelloFax - Free Online Faxing & Signing
- Pixlr Editor
- Wireframe (with Balsamiq Mockups)
- Get more apps

TITLE

Project Plan.mpp

SHARE DATE

John Demo Jun 26



My Drive - Google DriveNew Balsamiq Mockups W...Ganttter.com - web-based...Project Plan.mpp - Google...Chrome Web Store - Gant...New Tab

https://drive.google.com/?qsessionid=j-xgA-b-Jz5fkVloP8o1hQ#my-drive

Google

Josh Demo0+ Share

Drive

Take our survey!

Sort

My Drive

CREATE

My Drive

Shared with me

Starred

Recent

More

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	TITLE	OWNER	LAST MODIFIED
<input type="checkbox"/>	<input type="checkbox"/> Archive	me	Jun 26 me
<input type="checkbox"/>	<input type="checkbox"/> HelloFax	me	Jun 26 me
<input type="checkbox"/>	<input type="checkbox"/> Vacation Photos	me	Jun 26 me
<input type="checkbox"/>	<input type="checkbox"/> fishman.jpg	me	Jun 26 me
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<input checked="" type="checkbox"/>	<input type="checkbox"/> New Button Design.bmmml Shared	me	1:08 pm me
<input type="checkbox"/>	<input type="checkbox"/> receipt.pdf	me	Jun 26 me

Inbox (2) - jch.demo.two@gmail.com

Shared with me - Google Drive

Buttons Design.bmm1 - Google Drive

Shared with me - Google Drive

New Button Design.bmm1 - Google Drive

https://docs.google.com/file/d/0BygLrShAa3-rSHEXQXAzSz8raEU/edit


New Button Design.bmm1

File Edit View Help

jch.demo.two@gmail.com

Comments

Share




No preview available

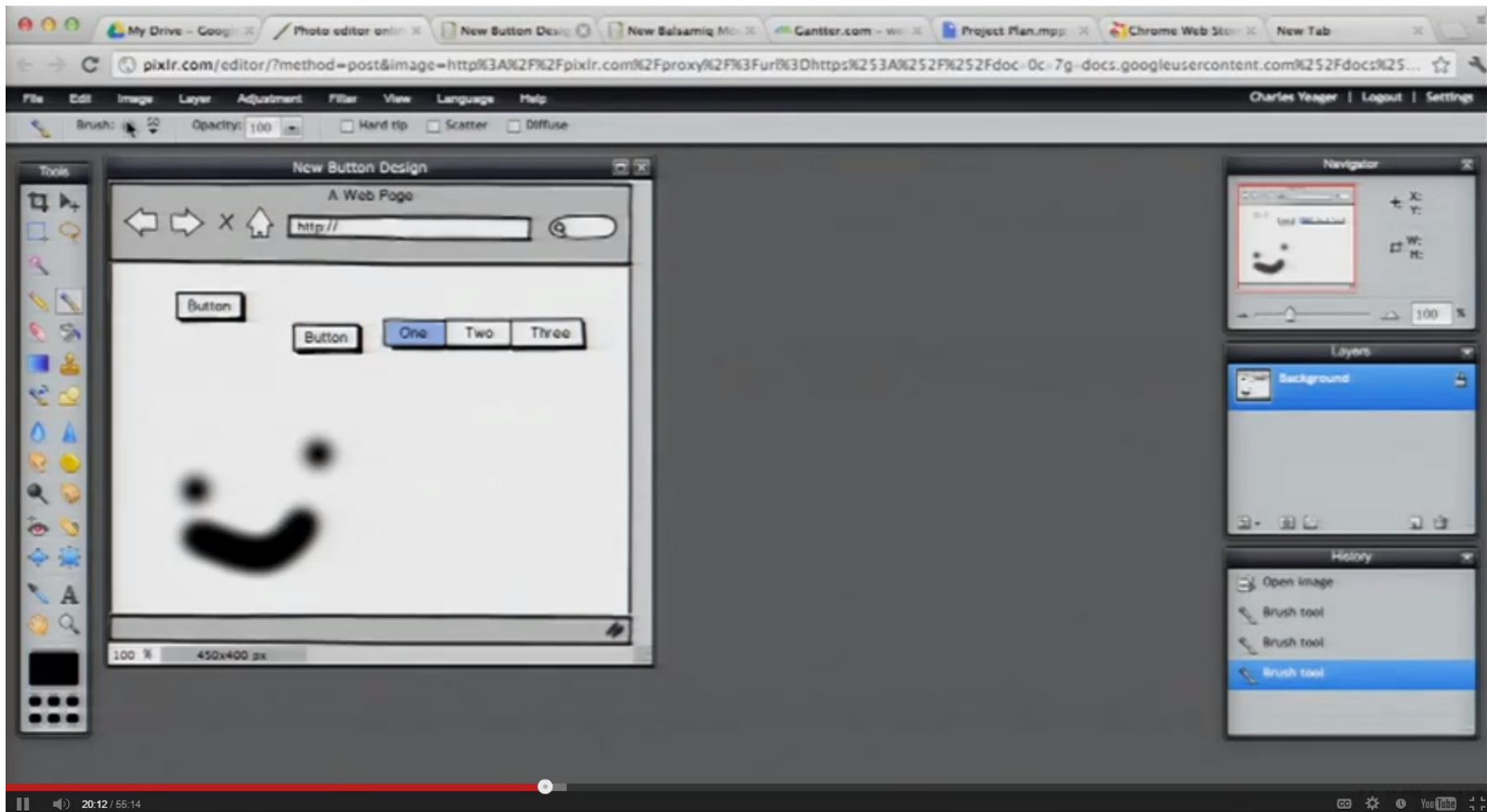
This item was created with Balsamiq Mockups, a Google Drive app.
By installing the app, you will get access to all of its features, including preview.

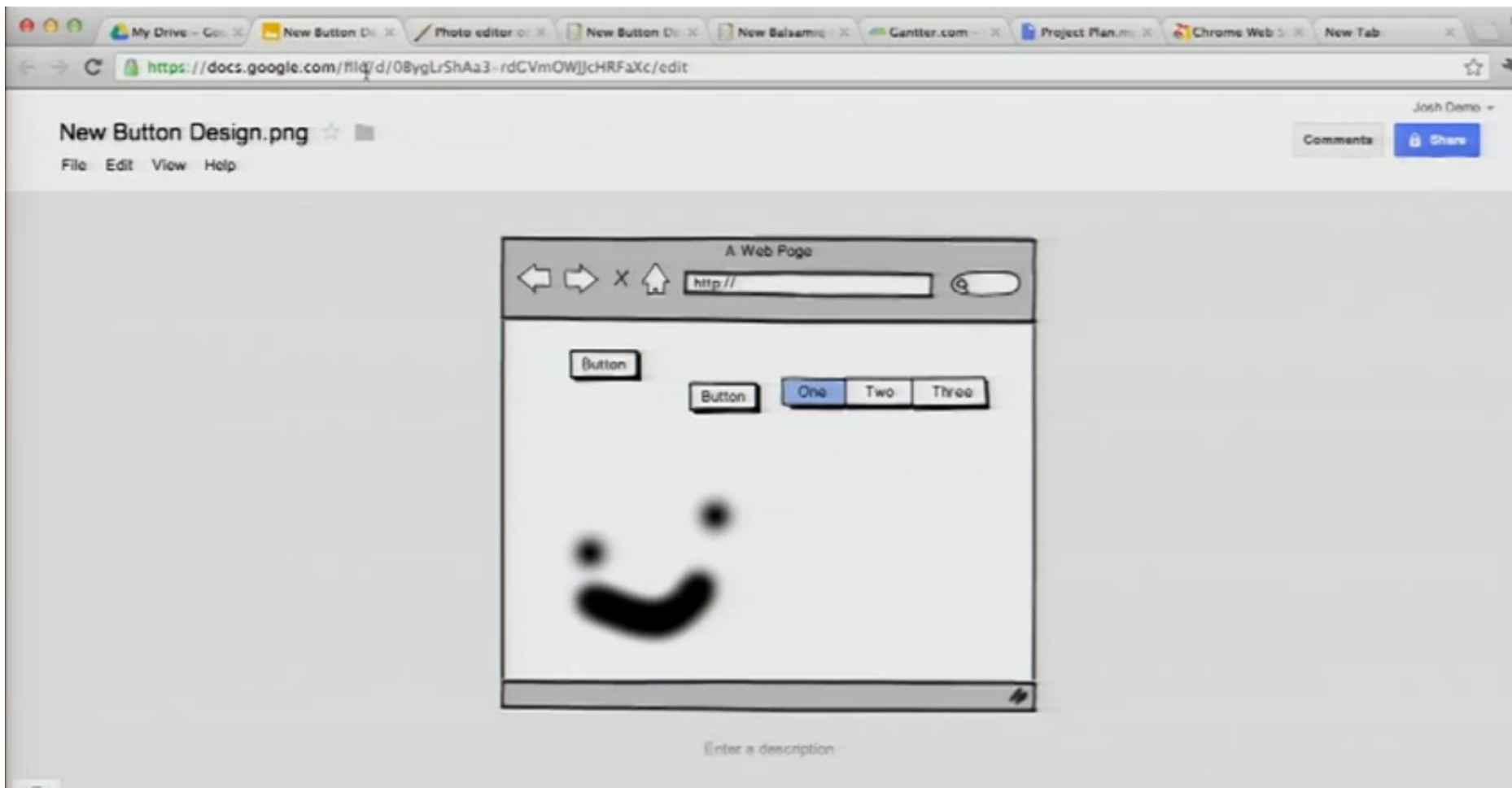
Install app

Download

Enter a description







My Drive - Google

Sign, edit, and

Photo editor

New Button De

New Balsami

Ganttter.com

Project Plan.m

Chrome Web S

New Tab

https://www.hellofax.com/?is_external_download=1&external_cache_key=ExternalFile_FromUrl_5d867770ebf7220918db16bf3fec9f4094c81fa8&external_file_name=New...

hello fax

jch.demo.one@gmail.com

Send a fax

Sign and send

Request signature

Documents

Team

Create Template

Getting started

Invite a friend and you'll both get 5 free pages

INVITE A FRIEND

Send a fax

1 Add (and sign) files of any kind

Drag files here ...

UPLOAD FILES

More

New Button Design.png

Edit & Sign

TIP

Add your signature, text and checkmarks (optional)

2 Enter fax number or email address

987162347

Import contacts

+ Cover page

+ Recipient

☒ Send high resolution & color version of fax (learn more)

Send it now



The Value Proposition

How our launch partners are doing

Value Proposition

Easy to Use

- Simple easy-to-use API
- Several partners built integration in less than 24 hours

User Base

- Access a large and rapidly growing user base
- Users engage more with apps integrated with Drive

Growth

- Promotion in Drive UI
- Install prompts on shares
- App suggestions from Google Drive preview screen for all file types

Case Study #1



SlideRocket defines the new way to create stunning presentations that deliver lasting impressions and measurable results.



Since Drive Launch

- 8 out of top 10 days for registrations in Sliderocket history
- 26% of new users originate via a Drive share

Drive users vs non-Drive users

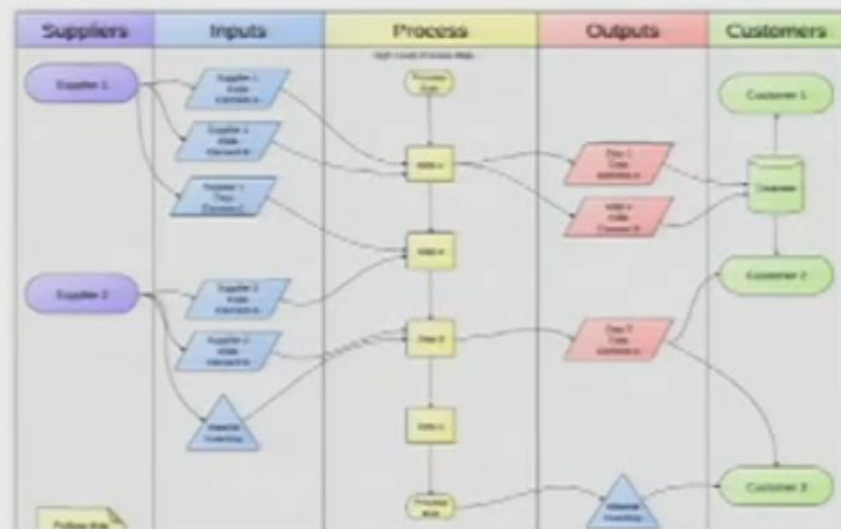
3x
more active

3.5x
more likely to create
a presentation

Case Study #2



Lucid Chart is the easiest way to draw flowcharts, mockups, UML, mind maps and more. Work together in real time with your team and clients.



Drive users vs non-Drive users

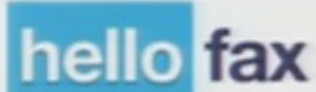
Heavily
weighted
towards large
team accounts

3x

as many documents
created



Case Study #3



HelloFax makes it easy to sign documents and send faxes online. You'll never need to print, sign and scan documents again!



Drive users vs non-Drive users

26%
more faxes

2x
as many documents
for signatures



SDK v2



Drive API v2

2

3

4

```
//...
* Exchange an authorization code for a set
* of Google APIs credentials.
* @param authorizationCode Authorization
* code.
* @param credentials representing the app
* @return CodeExchangeException An error.
*/
private Credential exchangeCode(String auth
    token, CodeExchangeException e)
    // talk to google and upgrade the given
    // token and hopefully a refresh token.
    try {
        GoogleAuthResponse response =
            new GoogleAuthResponse(
                TRANSFORMER,
                FIDELITY_FACTORY,
                secrets.getWeb().getCredentials(),
                secrets.getWeb().getCredentials(),
                auth.token,
                secrets.getWeb().getCredentials()
            );
        return buildHttpCredentials().setFromToken(response);
    } catch (IOException ex) {
        ex.printStackTrace();
        throw new CodeExchangeException();
    }
}
```

```
//...
* Verify that the current user is authorized and to return the
* user's name for the Drive.
* @param verifyGoogleName This is the
* user's name.
*/
public class VerifyGoogleName {
    //...
    // Ensure that the user is authorized, and setup the required values for
    // the user.
    //...
    @Override
    public void doTest() throws IOException {
        // Ensure that the user is authorized, and setup the required values for
        // the user.
        //...
        // Initialize the state in order to specify some values in the state.
        //...
        // Create an empty list in the list if no list was set.
        //...
        if (req.getHeader("state") != null) {
            state = new HashMap<>().put("state", req.getHeader("state"));
            if (state.containsKey("state") && state.containsKey("state") != null) {
                state = state;
            }
        }
        req.setHeader("state", new HashMap<>().put("state", req.getHeader("state")));
        req.setHeader("state", req.getHeader("state"));
        req.setHeader("state", req.getHeader("state"));
        req.setHeader("state", req.getHeader("state"));
    }
}
```

- Adds all Drive operations to the existing v1 API
- Can be used in full-access mode or file-access mode
- No Drive app required for API access
- 2 new client libs (Javascript and Objective-C)

SDK v2



Drive API v2



Improved Mobile

3

4

31

Intrigued? Check out "Writing Drive Apps for Android" Today at 4:00 in Room 6



- Launch Drive web apps from the Android Drive app (iOS support coming soon!)
- Open and Save to Drive from within mobile apps
- Easier to use mobile libraries

SDK v2



Drive API v2



Improved Mobile



Embeddable Sharing

4


Sharing settings

Link to share (only accessible by collaborators)

https://docs.google.com/open?id=0BBI-gH5jykO_NHdScW1RdG5PY2M

Who has access

Private - Only the people listed below can access [Change...](#)

 John Day-Richter (you) johndayrichter@go... [Can edit](#) [x](#)

Add people:

Enter names, email addresses, or groups

Editors will be allowed to add people and change the permissions

[Done](#)

- Add the Drive sharing dialog to your app using a simple Javascript library
- No additional security credentials required

SDK v2



Drive API v2



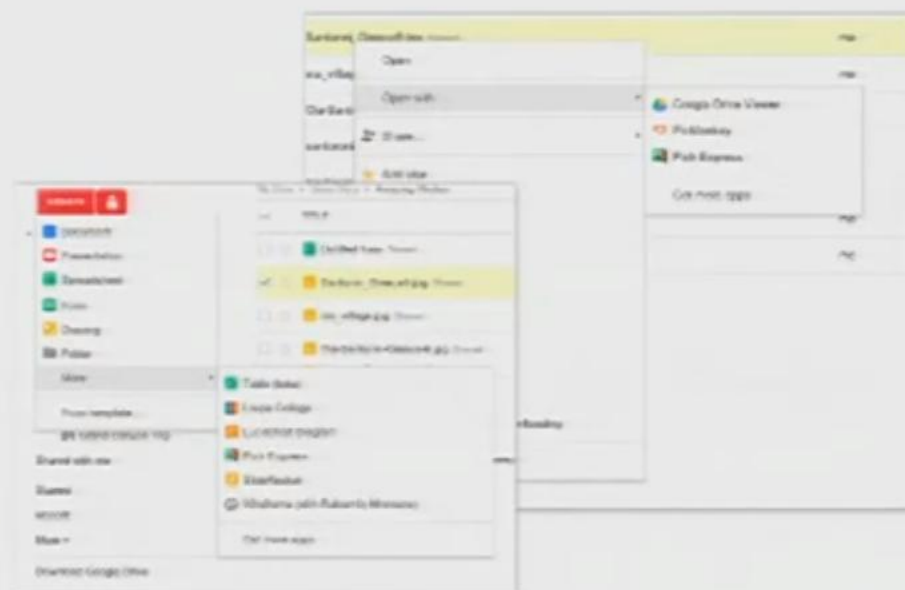
Improved Mobile



Embeddable Sharing



Open With for Google Docs



- Drive apps will be able to open Google documents, spreadsheets and presentations
- Drive will export the doc to a common export format and send to app



Coming Soon

The future of the Google Drive SDK

Coming Soon

Push Notifications

[illegible]

- Real time notifications of activity on the server.
- No more polling for changes

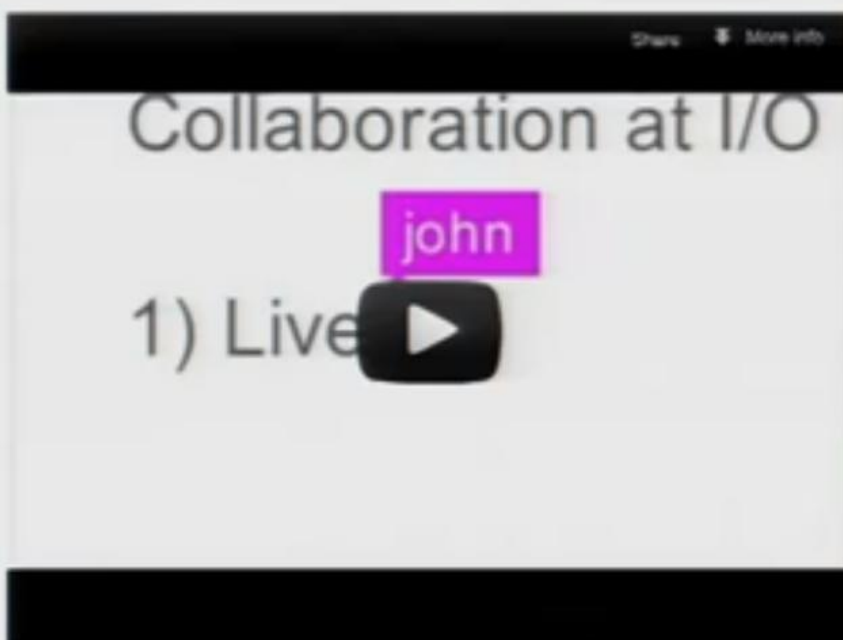
Coming Soon



Push Notifications



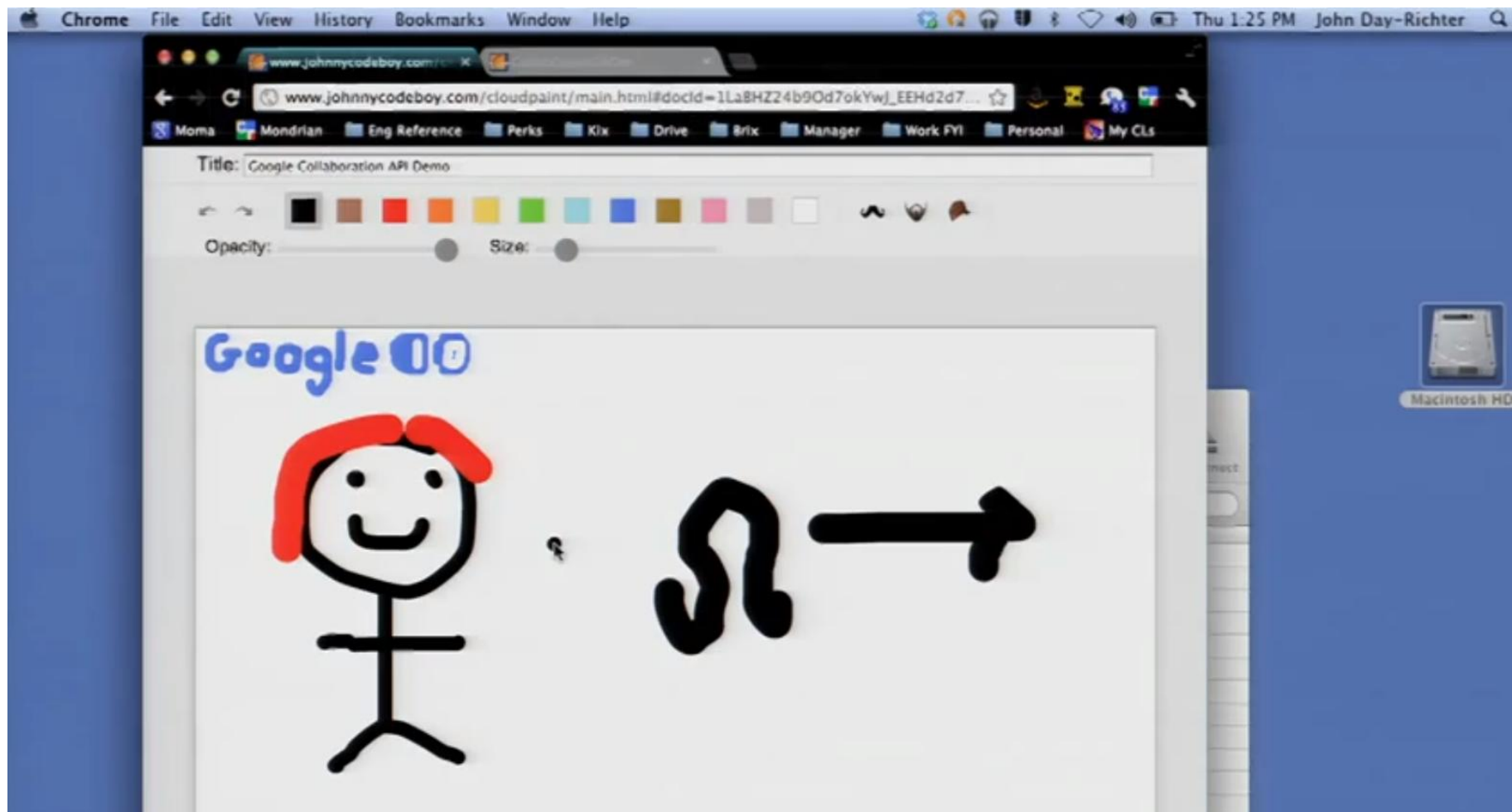
Collaboration API



- You know how cool Google Docs collaboration is?
- Wouldn't it be great to add those features to *your* app?

Ideas for Introducing Google Docs Collaboration at I/O

josh



Thank You!

Any questions?

Josh Hudgins

John Day-Richter

