



# *4D & Wakanda User Group*

May 24, 2017





# Agenda

1. About 4DMethod
2. 4D News, Jim Sobczak
3. Wakanda News, Ricardo Mello
4. The 4D iNUG E-Digest, Ed Hammond
5. Hey 4D! Brent Raymond
6. Special topic: Going 4D Mobile at AIC, Xiang Liu and Brent Raymond
7. General Q & A
8. Next Meeting - July 12, 2017



# Welcome



## Brent Raymond

4DMethod 4D & Wakanda User Group

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[4dmethod@gmail.com](mailto:4dmethod@gmail.com)



# 4DMethod

## 4D & Wakanda User Group

- Bring together a scattered community of developers and users
- Stream meetings via YouTube Live to allow people to participate from anywhere
- Record meetings and presentations to be viewed again or shared with others
- Provide fresh new content and exposure for users and developers everywhere

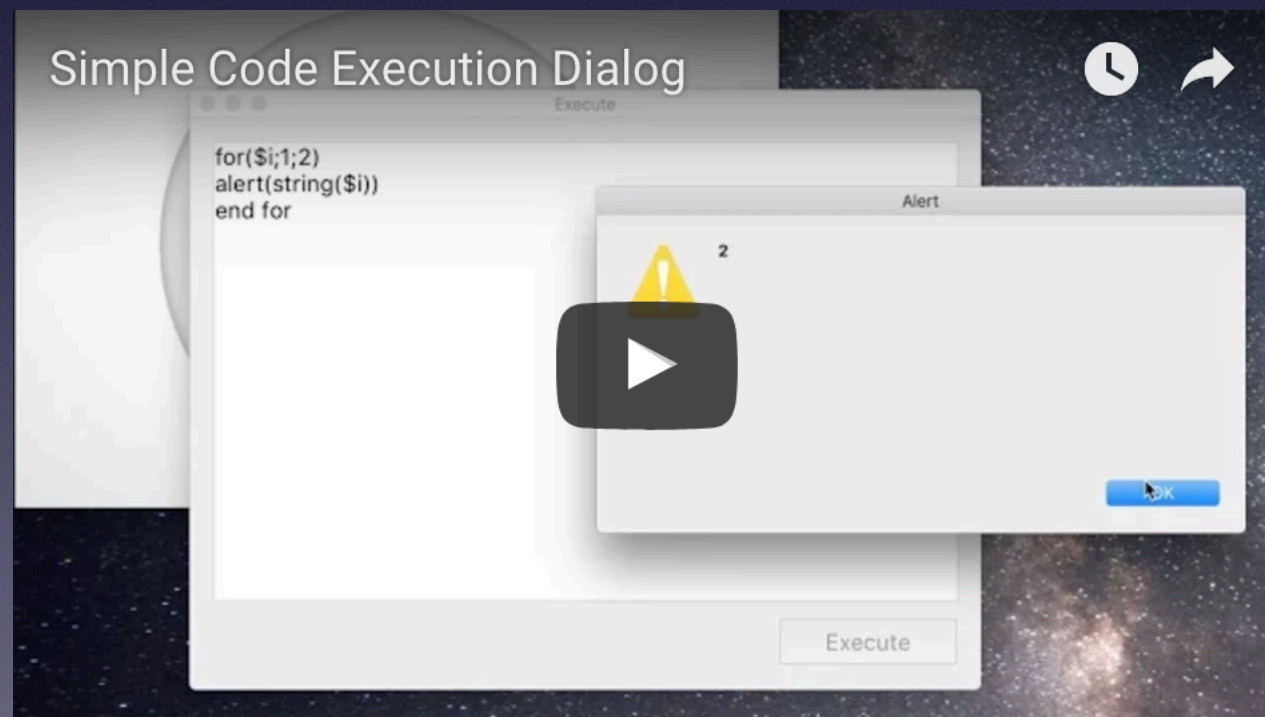


# 4DMethod News

## Demo: Simple Code Execution Dialog

How to create a very simple code execution dialog in 4D using 4D Transformation Tags and Process 4D Tags.

*Warning! Be sure to understand the security implications of allowing such functionality!*



<https://youtu.be/oErsVQ7IKRY>





# 4DMethod News

 Become a patron

Thank you to our latest contributor at the  
Mitarbeiter level...

Dan Gallagher from Chicago, IL

<https://www.patreon.com/4dmethod>



# 4D News



Jim Sobczak

VP of Sales & Services for 4D, Inc.  
OEM Manager

[jsobczak@4d.com](mailto:jsobczak@4d.com)





# 4D v16.1 released



- Released May 3, 2017
- Latest bug fixes
- Open SSL library upgrade to version 1.0.2k.

<http://www.4d.com/downloads/products.html>



# 4D News

Source code sharing of internal 4D components with 4D Partners



4D Write Pro Interface, 4D Quick Report dialog, 4D Pop (constants editor!), SVG Area, 4D Progress, 4D SVG, 4D Widgets (DatePicker, TimePicker, SearchPicker)



# Wakanda News



**Ricardo Mello**

Chief Commercial Officer

Wakanda.io

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[https://www.linkedin.com/in/  
ricardodemello](https://www.linkedin.com/in/ricardodemello)





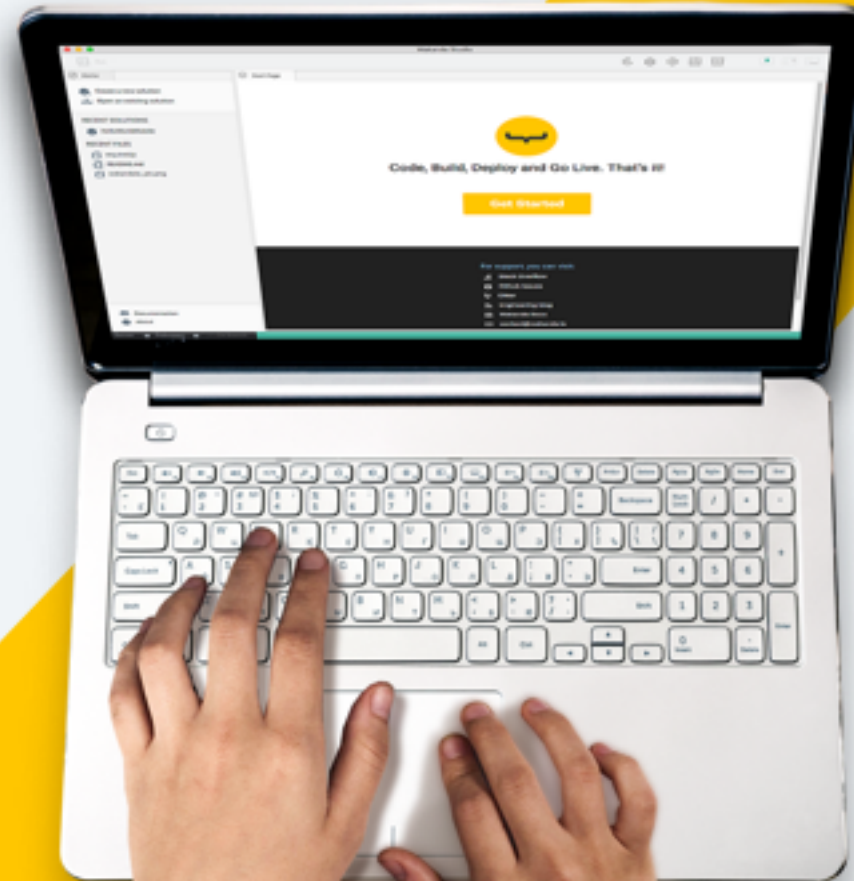
# Wakanda 2.0



## Community Edition v2.0.0

Full-stack JavaScript Platform with IDE  
for your Web, Hybrid or Native Apps

[www.wakanda.io](http://www.wakanda.io)





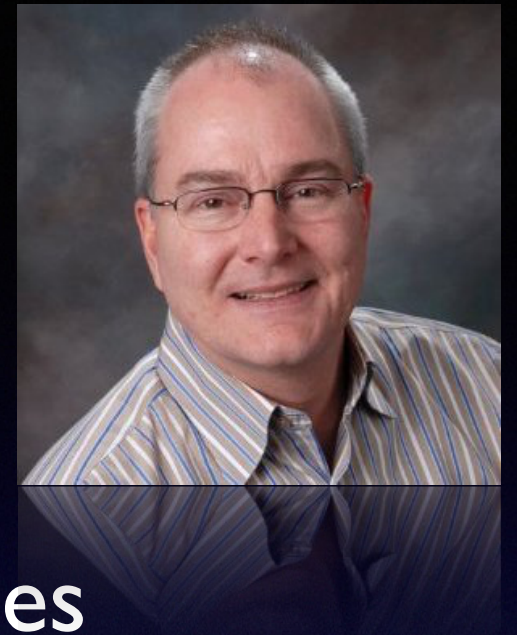
# Wakanda 2.0

- NodeJS Support - Nodeworker API to benefit from the huge NodeJS ecosystem.
- JavaScript Abstraction Layer - is now extended to web services too
- New ODBC Connector - Connect to MSSQL or any other DBs through the new connector - Data Model is autogenerated in a JavaScript Abstract Layer.



# The 4D iNUG E-Digest

## Ed Hammond



- Wide breadth of topics and 4D tech issues
- Take advantage of a wealth of 4D experience and knowledge
- Check out <http://4dmethod.com/e-digests/> for a list of recent topics being discussed in the iNUG
- To register:  
<http://lists.4d.com/mailman/listinfo>
- All discussion accessible online at:  
<http://4d.1045681.n5.nabble.com>



# Hey 4D!

We can currently pull an array of objects...

```
SELECTION TO ARRAY(myObjectField;myObjectArray)
```

And even grab a selection of records/ fields as JSON

```
$tJSON:=Selection to JSON(myTable;template)
```

How the ability to pass a template of requested attributes to S2JSON?

```
$tJSON:=Selection to JSON(myObjectField;template)
```

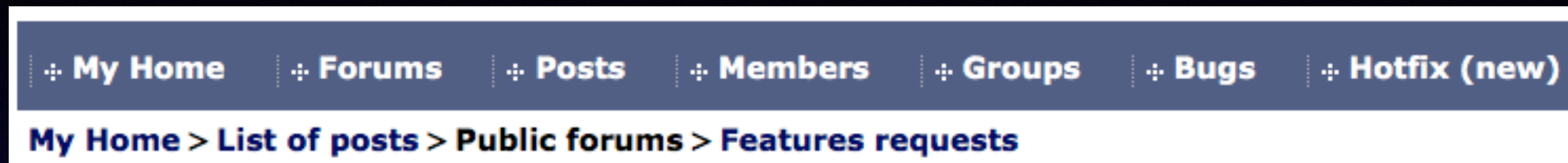


It'd be a lot cooler  
if you did...

Bonus points:  
Return as array of  
objects ;)



# Feature Requests/Voting



<http://forums.4d.fr/Forum/EN/1075213/0/0>

Voting on a feature request is accomplished by using the star rating system on the original post for that particular feature.

Compiler: Compile to a separate file: not into source project  
Sent on : 2012/12/19 - 02:53EPM

Average: (9 votes)  
★★★★★

Rate this:  
★★★★★

Reply

REQUEST:  
Allow an option when compiling, to create a destination - compiled only file, like in the old days with the separate compiler application, and NOT put the compiled code into the source .4db file.

BENEFITS:  
I do frequent backups of my source file. When compiling, and with 64-bit turned on, my source file becomes 4 times larger. I would much prefer to not explode the size of my source file with the compiled code.

The star rating system has 4 options:

- 1 = Bad
- 2 = Average
- 3 = Good
- 4 = Excellent

Select the number of stars you feel the feature request deserves to cast your vote:

Average: (9 votes)  
★★★★★

Rate this:  
★★★★★

<http://kb.4d.com/assetid=76726>



# Special Topic: Going 4D Mobile at the Art Institute of Chicago

**Xiang Liu and Brent Raymond**

Technical Services Engineer  
4D Inc

XLiu@4d.com

<https://www.linkedin.com/in/xiang-liu-05683232>









# Custom built 4D application - CITI



ESTABLISHED  
2001  
AGED TO  
PERFECTION

Object Manager

germany Match all (AND) Search Options

Object Type	is equal to	Painting
Collection Status	is equal to	Permanent Collection

☐ AIC Collection and Long Term Loans

My Essential Art 31 records - 1 selected. Options

Vasily Kandinsky  
French, born Russia, 1866–1944  
Improvisation No. 30 (Cannons), 1913  
Oil on canvas  
43 11/16 x 43 13/16 in. (111.0 x 111.3 cm)  
Arthur Jerome Eddy Memorial Collection  
1931.511

Gustave Caillebotte  
French, 1848-1894  
Paris Street; Rainy Day, 1877  
Oil on canvas  
83 1/2 x 108 3/4 in. (212.2 x 276.2 cm)  
Charles H. and Mary F. S. Worcester Collection  
1964.336

Georges Seurat  
French, 1859-1891  
A Sunday on La Grande Jatte — 1884, 1884/86  
Oil on canvas  
81 3/4 x 121 1/4 in. (207.5 x 308.1 cm)  
Helen Birch Bartlett Memorial Collection  
1926.224

René Magritte  
Belgian, 1898–1967  
Time Transfixed, 1938  
Oil on canvas  
57 7/8 x 38 7/8 in. (147 x 98.7 cm)  
Joseph Winterbotham Collection  
1970.426

Willem de Kooning  
American, born Netherlands, 1904–1997  
Excavation, 1950  
Oil on canvas  
205.7 x 254.6 cm (81 x 100 1/4 in.), without frame

Field Palette: Objects

Quick Search

- Record Creation Date
- Record Last Modification D...
- ▼ Attribution
  - Artist / Culture
  - Artist / Display
  - Artist Last Name
  - Artist First Name
  - Artist Nationality
  - Artist Birth Date
  - Artist Death Date
  - Place
  - Places (All)
  - SAIC Artist
  - SAIC Donor
- ▼ Object Core Data
  - Title
  - Title, Date
  - Titles (All)
  - Display Dates
  - Date
  - Dates (All)
  - Medium Display
  - Medium Display, Dimens...
  - Dimensions
  - Framed Dimensions
  - Main Reference Number
- ▼ Credit Line
  - Acquisition Agent
  - Acquisition Agents (All)
  - Acquisition Method
  - Acquisition Notes
  - ...

Filter: ☐ Searchable ☐ Viewable

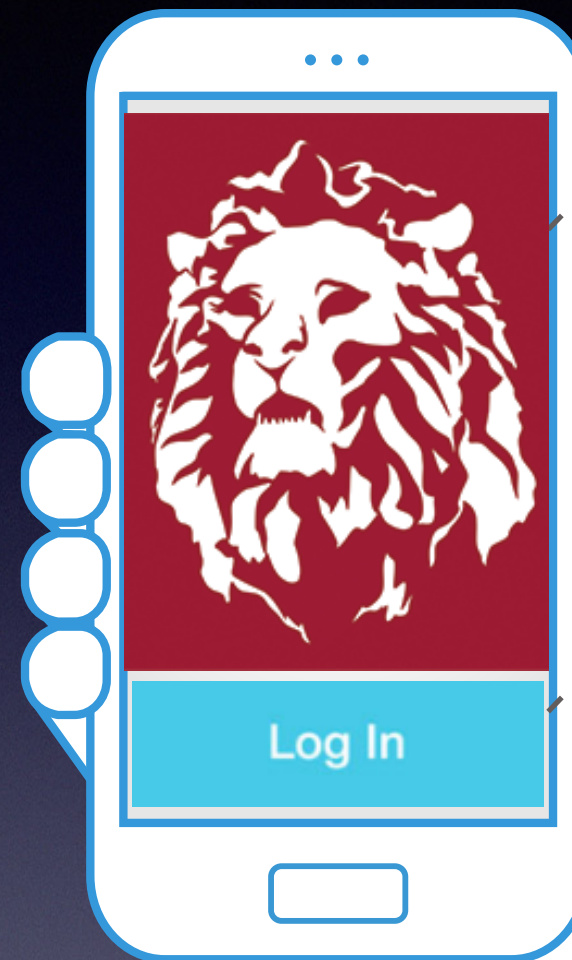


# Going Mobile

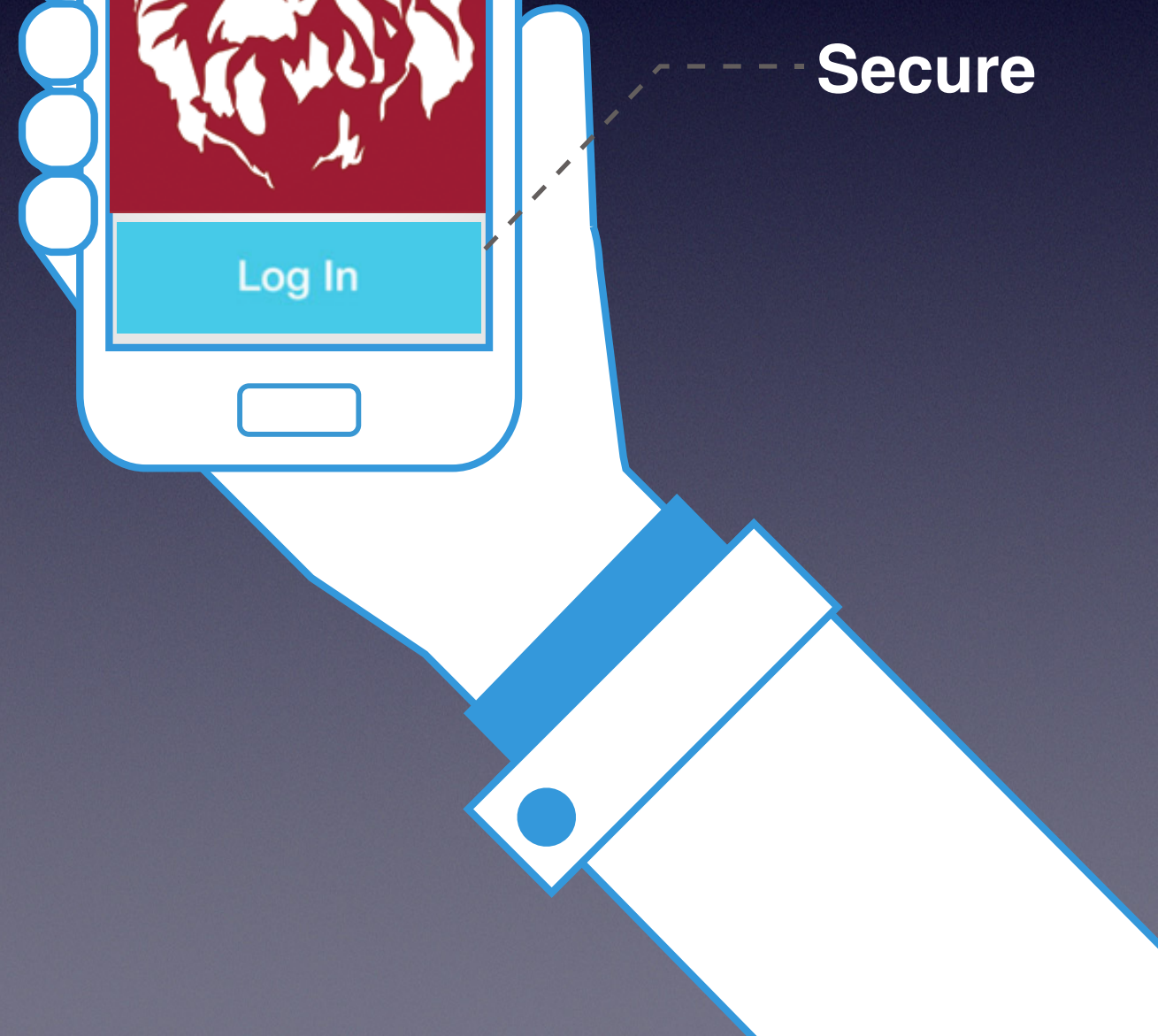
Browser



Mobile



Secure





# Going Mobile

- Manageable by a small IT team
- Live data, no sync
- Is scalable
- Performant with large amounts of data
- Highly secure even within the institution between users



# Results




[HOME](#) [< BACK TO HOME](#) [BRENT RAYMOND](#) [LOG OUT](#)

[SUBMIT](#) Essential Artworks [31] (Global) [+](#) [CREATE](#)

BRIEFCASE


Essential Artworks [31] (Global)

< 1 2 >




Grant Wood  
American, 1891-1942  
*American Gothic, 1930*  
Oil on Beaver Board  
78 x 65.3 cm (30 3/4 x 25 3/4 in.)  
Friends of American Art Collection

[SEE DETAIL](#)




Vasily Kandinsky  
French, born Russia, 1866-1944  
*Improvisation No. 30 (Cannons), 1913*  
Oil on canvas  
43 11/16 x 43 13/16 in. (111.0 x 111.3 cm)  
Arthur Jerome Eddy Memorial

[SEE DETAIL](#)



India  
Andhra Pradesh, Madanapalle  
*Karttikeya, God of War, Seated on a Peacock, Ganga Period, c. 12th century*  
Basalt  
150.5 x 121 x 39 cm (59 1/16 x 47 5/8 x 15 3/8 in.)


[SEE DETAIL](#)



Gustave Caillebotte  
French, 1848-1894  
*Paris Street; Rainy Day, 1877*  
Oil on canvas  
212.2 x 276.2 cm (83 1/2 x 108 3/4 in.)  
Charles H. and Mary F. S. Worcester

[SEE DETAIL](#)

[RECORD](#) [WORK DETAILS](#) [CREATOR/PLACES](#) [LOCATION](#)



Vasily Kandinsky  
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Oil on canvas  
43 11/16 x 43 13/16 in. (111.0 x 111.3 cm)  
Arthur Jerome Eddy Memorial Collection

CURRENT LOCATION

Gallery 392A

Parents: Gallery 392

[SELECT CURRENT](#)

HOME LOCATION

Gallery 392A

Parents: Gallery 392

[SELECT HOME LOCATION](#)

FUTURE LOCATION

Select if object has been moved to [Home Location](#)

Select if object has been moved to [Future Location](#)

[SELECT FUTURE](#)

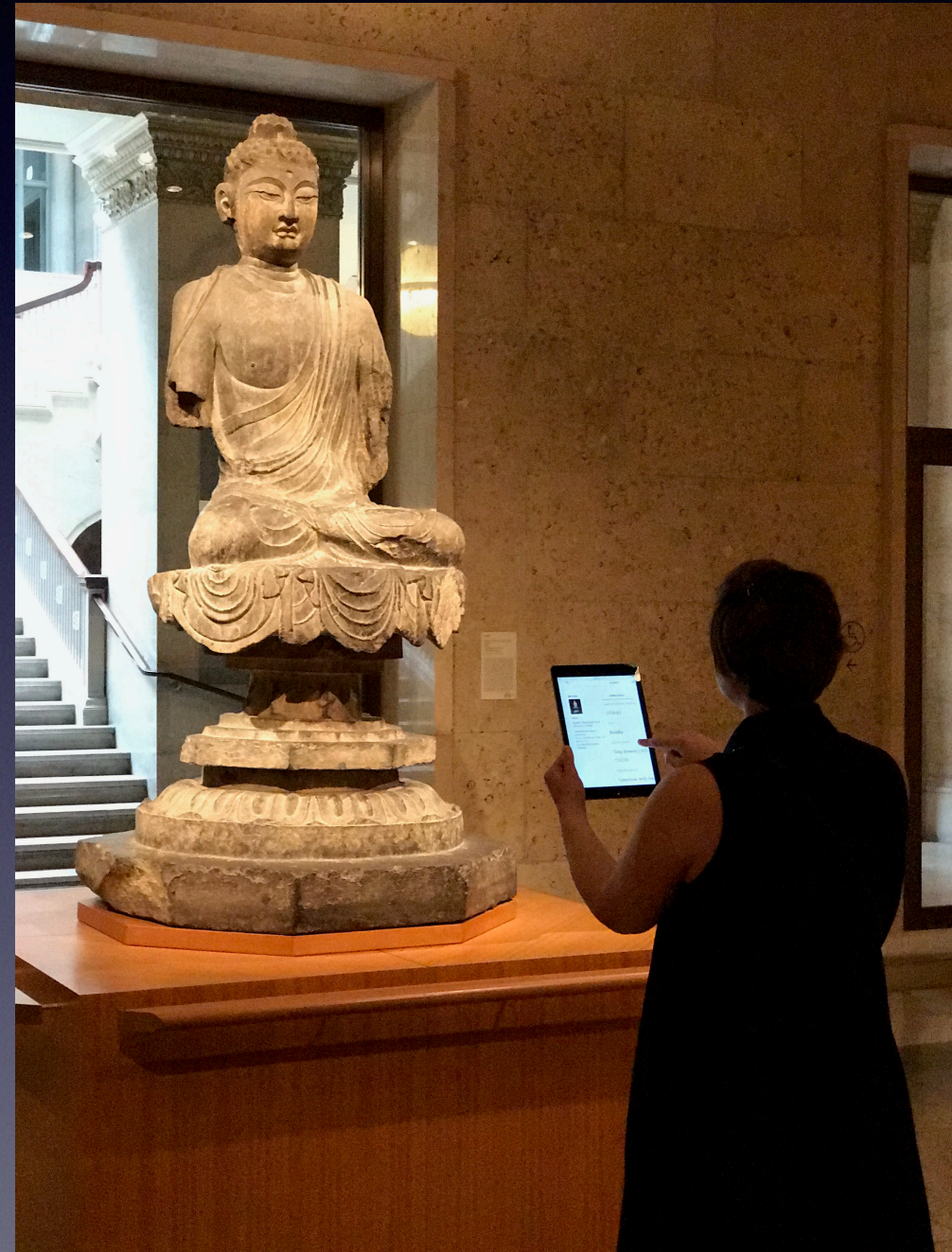
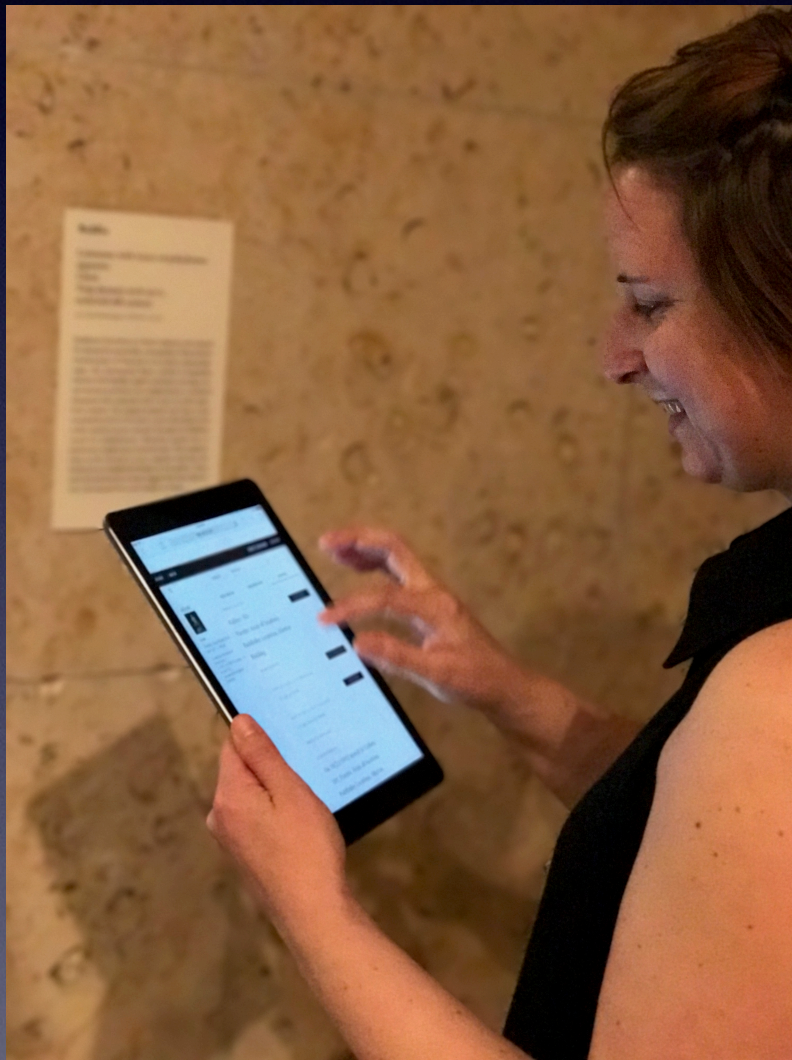


# Results

- Responsive single page web app using Angular 2, NodeJS, and Wakanda
- Mobile ready for iOS and Android
- Newly re-thought and re-designed for the browser & mobile platforms
- Very efficient data access makes it performant even with slow connections
- Style easily updated without complicated backend upgrades



# Free The Users



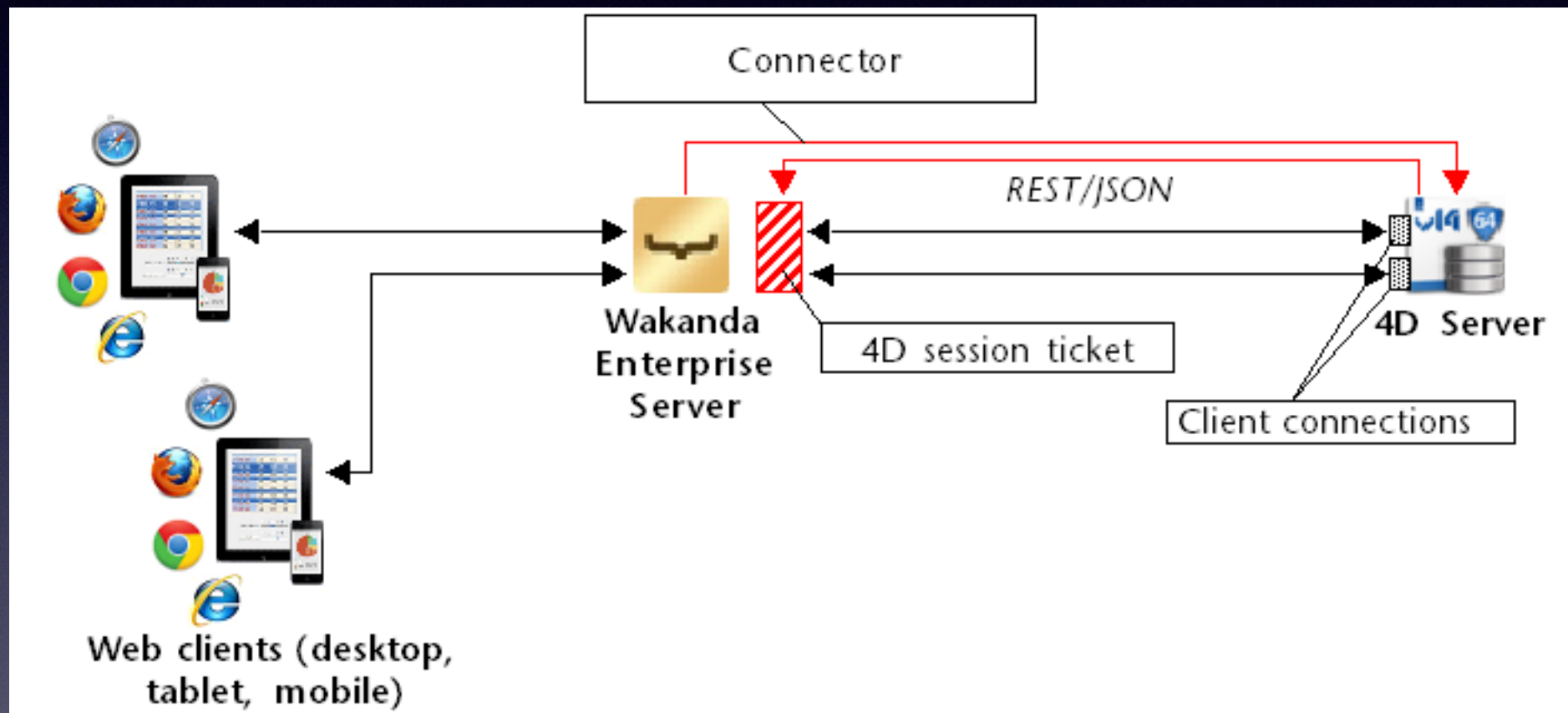


# Why 4D Mobile?

- It's easy (see less expensive)
- It's quick (see checkbox click)
- Avoid trouble of writing custom REST API
- Keeps business logic centralized
- Leverage vetted code
- 4D Professional Services
  - Outsource web development



# 4D Mobile Connector





# @&\*\$ It, Do It Live!

- Enable 4D HTTP Server
- Activate 4D Mobile service
- On 4D Mobile Authentication (or not)
- ‘Available through 4D Mobile call’ Method property
- Association to table ‘Expose...’
- Access via data store in Wakanda
- Done





# Recommendations

- Stateless calls
- Handle sessions in web app
- Object in/ out parameters
- Use google docs to share api documentation
- Stay as generic as possible
  - See virtual structure talk  
<https://youtu.be/l6CBVqiMGhw>

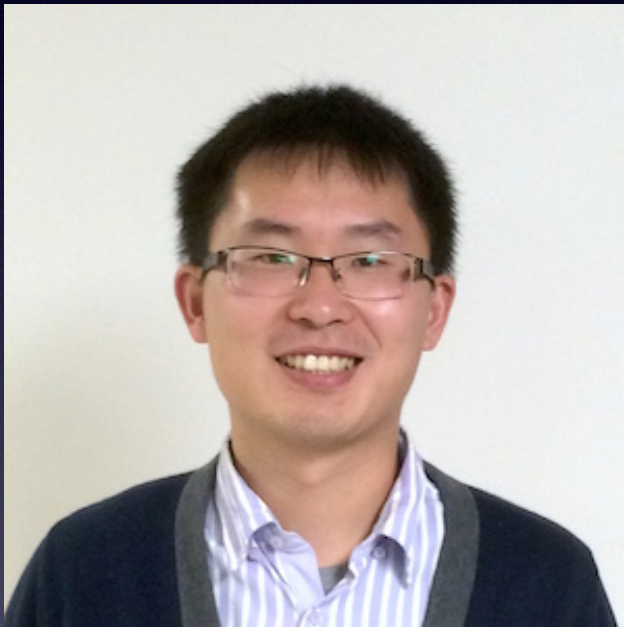


# Wakanda Engineering





# Questions?





# Next Meeting



<http://4dmethod.com/schedule/>



# Next Meeting

Wednesday, July 12, 2017, 12:00 noon, CDT (UTC-5:00)  
4D ACME Client – A Lets Encrypt client in native 4D code, Tim Penner

Wednesday, August 23, 2017, 6:00 PM, CDT (UTC-5:00)  
A Publish/Subscribe Component for 4D, David Adams

Calling for speakers who would like to demo some of their work or applications. Open dates include:

October 4, 2017  
November 15, 2017



# Wrap Up

Other questions?

Discussion

Feedback is appreciated