



# EtherCalc

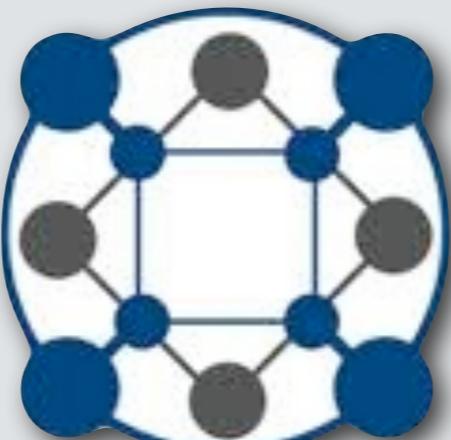
多人即時  
協作試算表



# EtherCalc *for* Drupal

多人即時  
協作試算表

# 僅代表個人立場



只講故事

不講程式

只講概念

不講程式

# **SheetNode.org**

# SheetNode.org



**Sheetnode  
EtherCalc**

EtherCalc integration  
for multi-user  
editing.  
Requires: Sheetnode  
**(enabled)**

# SheetNode.org

Sheetnode  
EtherCalc

EtherCalc integration  
for multi-user  
editing.  
Requires: Sheetnode  
(enabled)

▶ **npm install -g ethercalc**

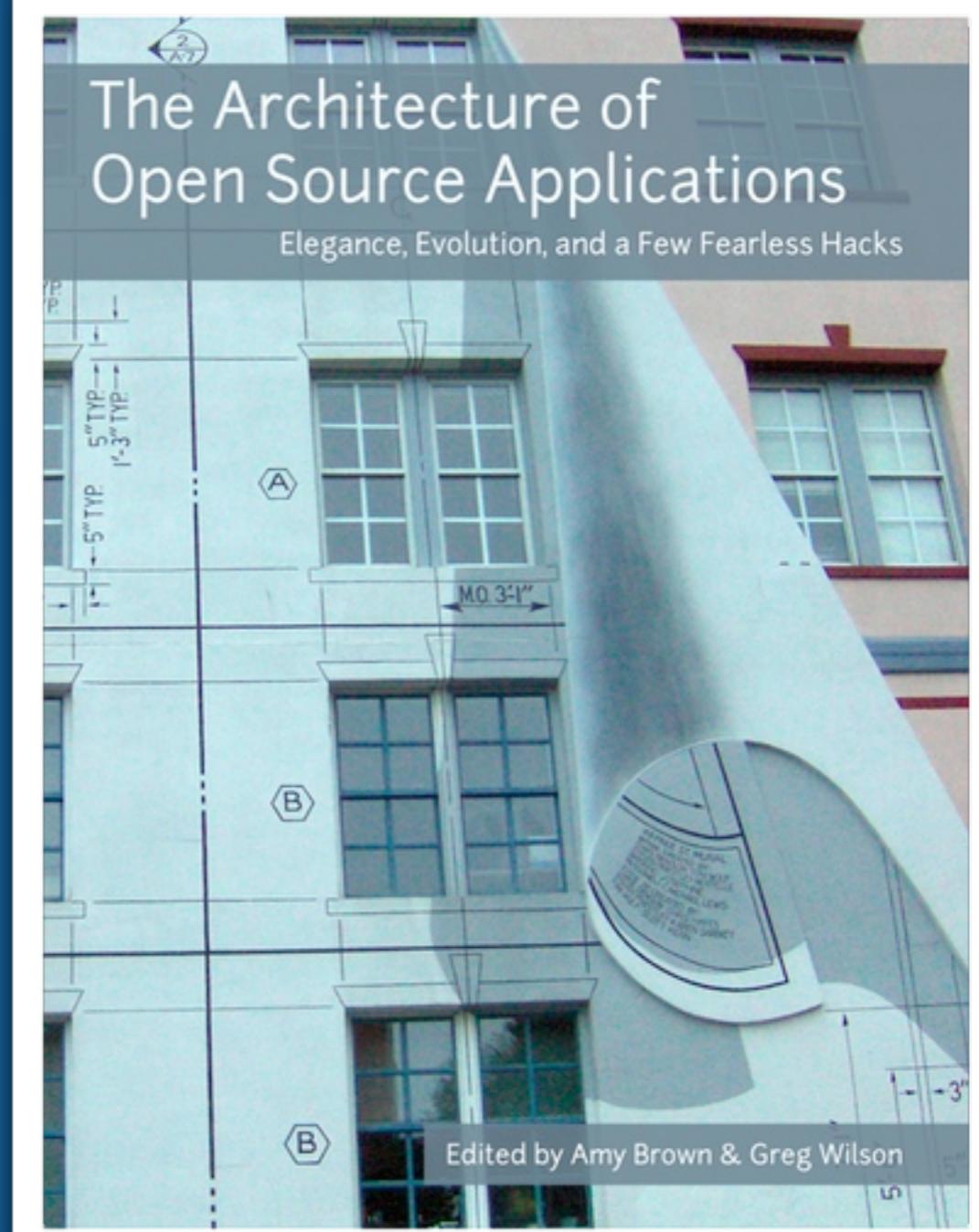
▶ **ethercalc**

Please connect to: **http://0:8000/**

# 《開源應用架構》

EtherCalc.tw

aosabook.org



縁起

# VisiCalc, 1979



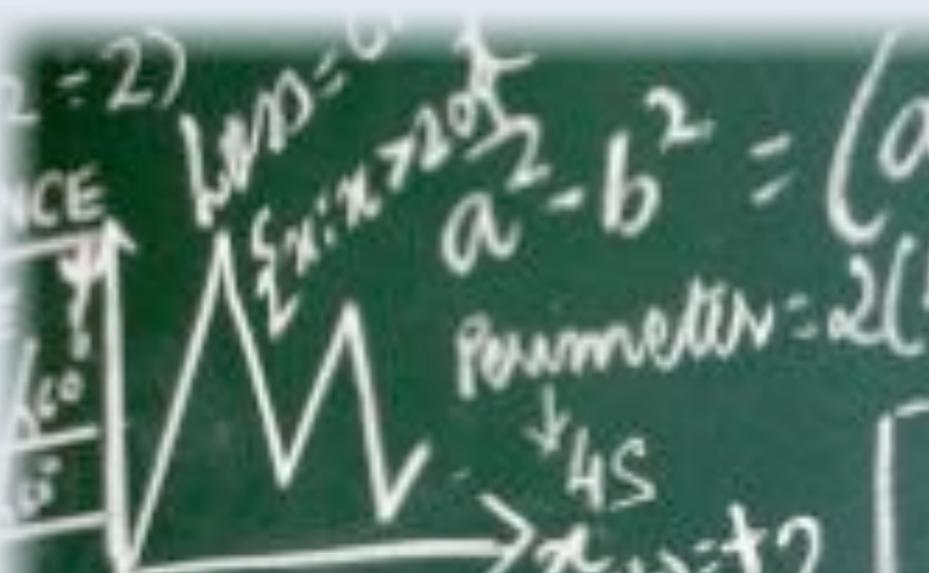
# Dan Bricklin

HOME BUDGET, 1979			
MONTH	NOV.	DEC.	TOTAL
SALARY	2500.00	2500.00	30000.00
OTHER			
INCOME	2500.00	2500.00	30000.00
FOOD	400.00	400.00	4800.00
RENT	350.00	350.00	4200.00
HEAT	110.00	120.00	575.00
REC.	100.00	100.00	1200.00
TAXES	1000.00	1000.00	12000.00
ENTERTAIN	100.00	100.00	1200.00
HISC.	100.00	100.00	1200.00
CAR	300.00	300.00	3600.00
EXPENSES	2460.00	2470.00	28775.00
REMAINDER	40.00	30.00	1225.00
SAVINGS	30.00	30.00	360.00

哈佛商學院, 1977

# 哈佛商學院, 1977

$a^2 - b^2 = (a+b)(a-b)$   
 $\text{Perimetro} = 2(l+2b) \quad (l=b)$



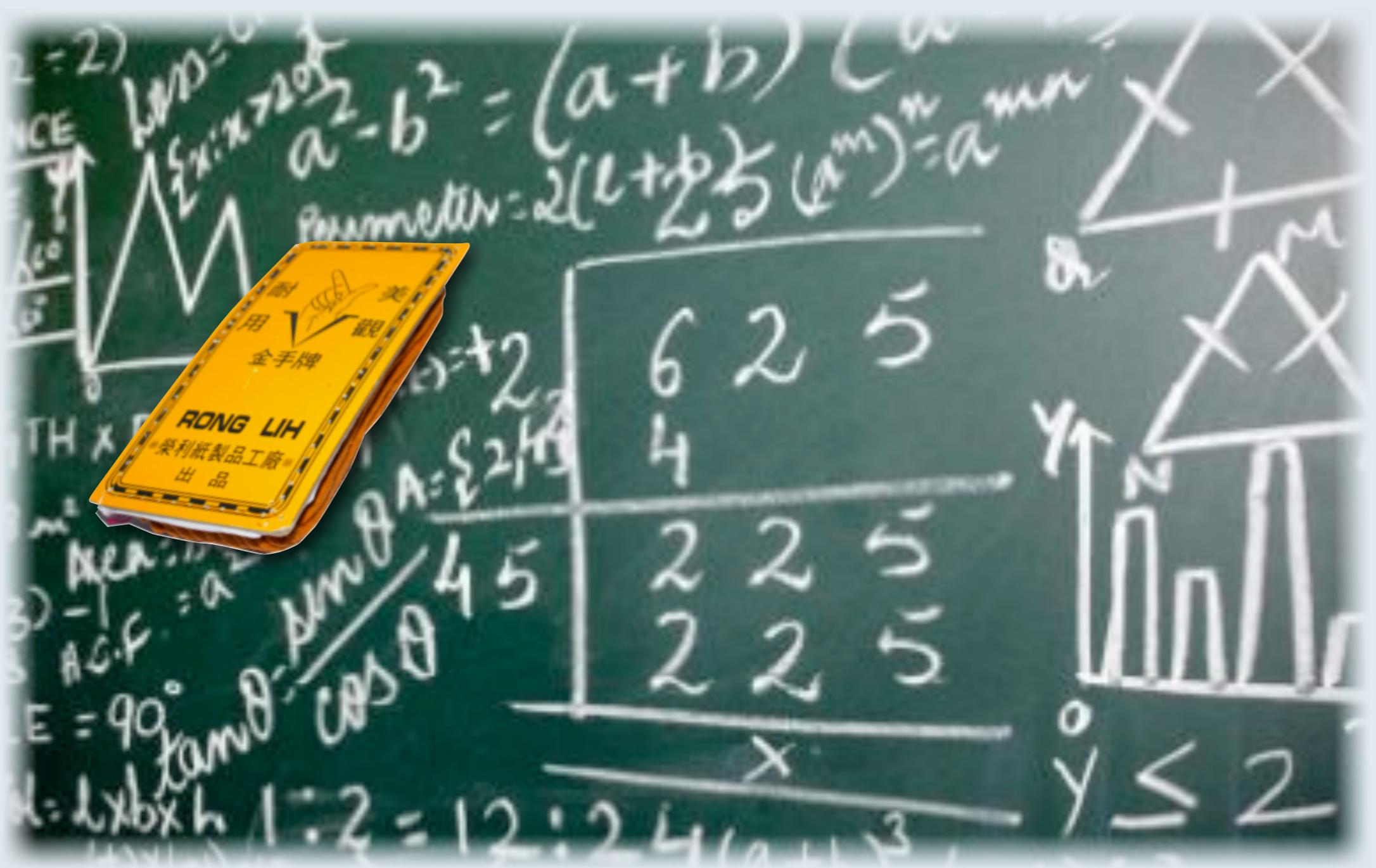
$TH \times BREADTH$   
 $A = \frac{1}{2}(l+b)h$   
 $A = \frac{1}{2}(a+b)b$   
 $A.G.F. = \frac{1}{2}(a+b)b$   
 $E = 90^\circ$  when  $b \perp h$   
 $l = b \times b \times h \quad 1:2 = 12:24$

	6	2	5
4			
	2	2	5
	2	2	5

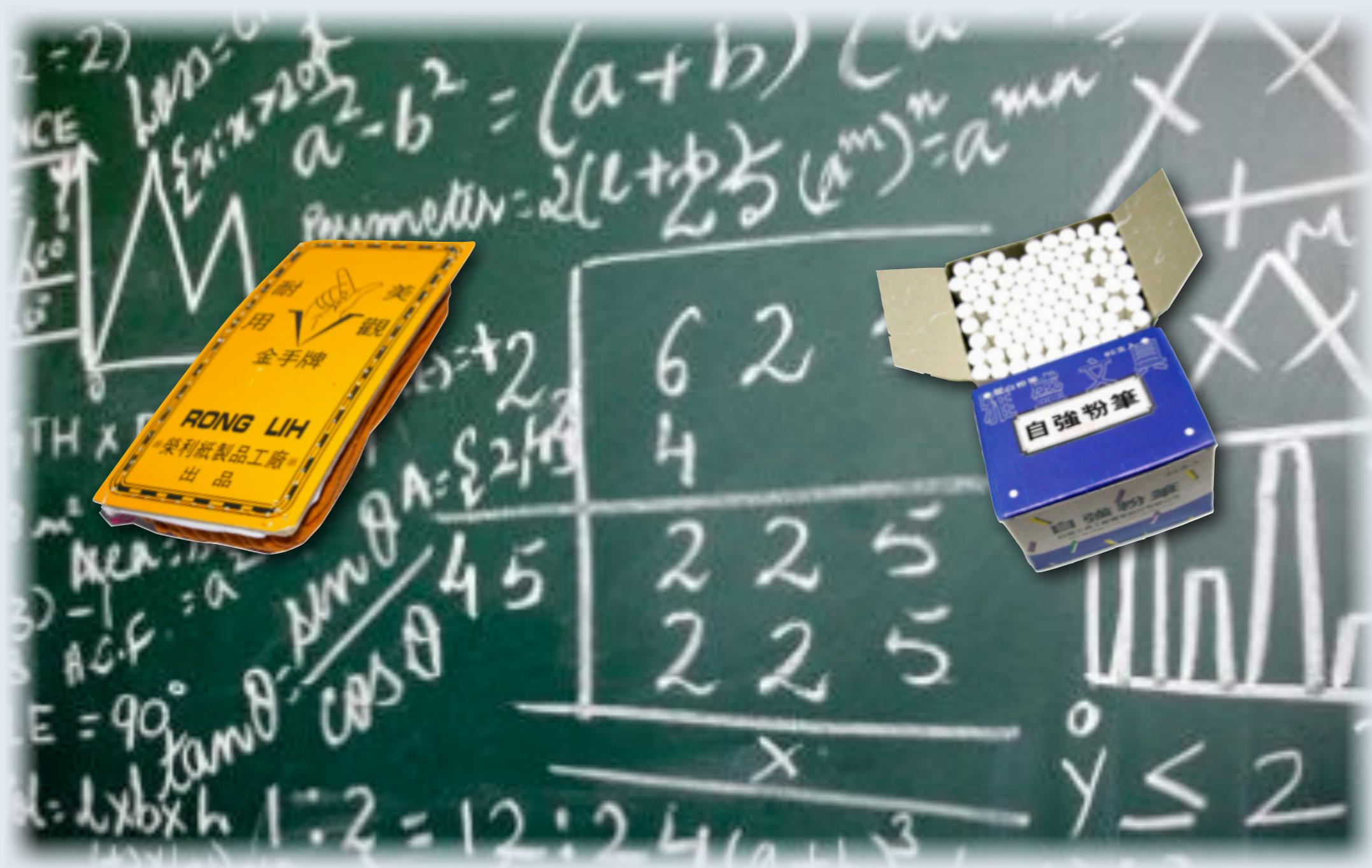
$x$        $y$   
 $y \leq 2$



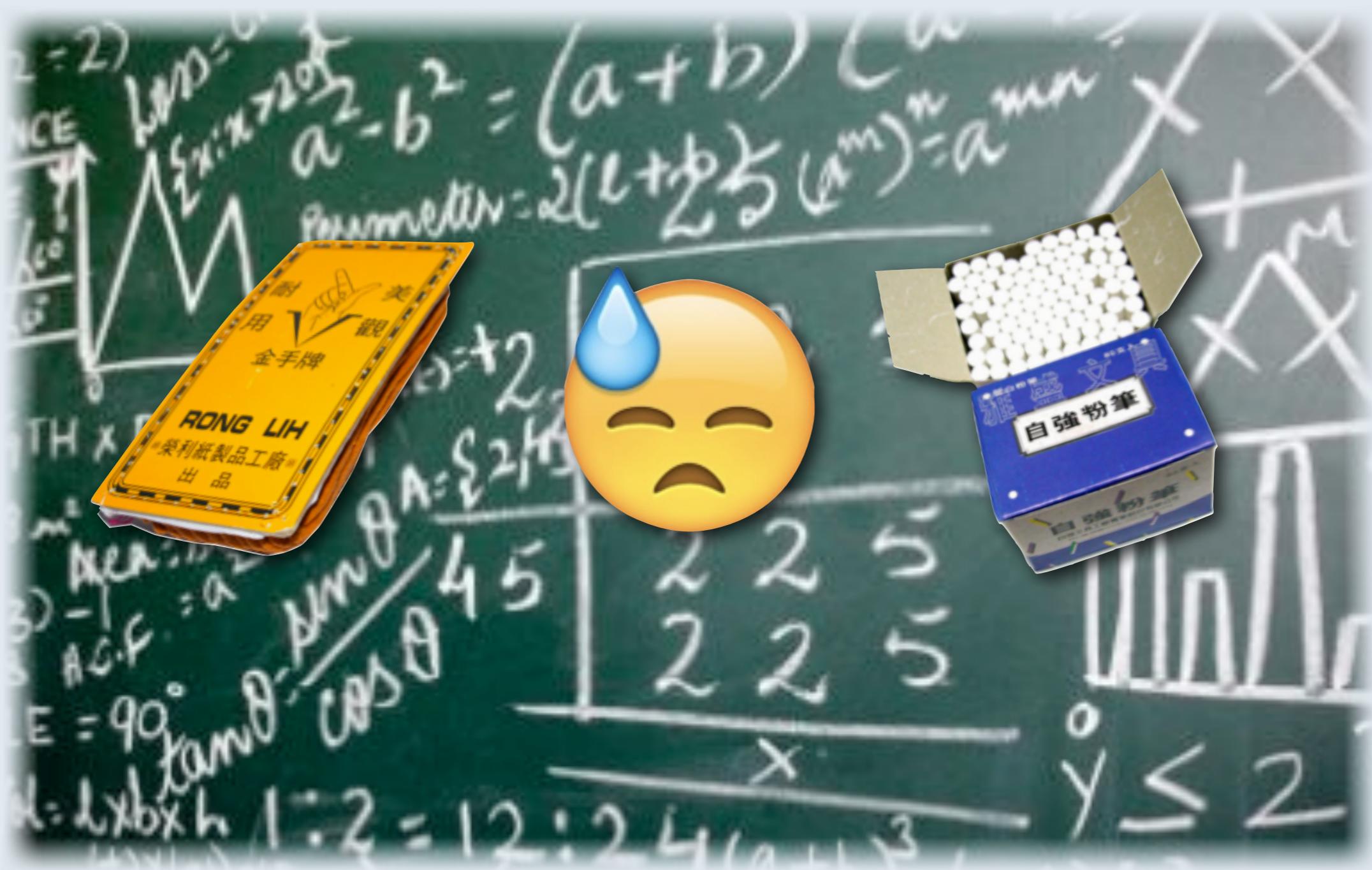
# 哈佛商學院, 1977



# 哈佛商學院, 1977



# 哈佛商學院, 1977



# 最初的願景

# 最初的願景



Alto 工作站

# 最初的願景



滑鼠計算機



Alto 工作站

# 最初的願景



滑鼠計算機



Alto 工作站



頭戴顯示器



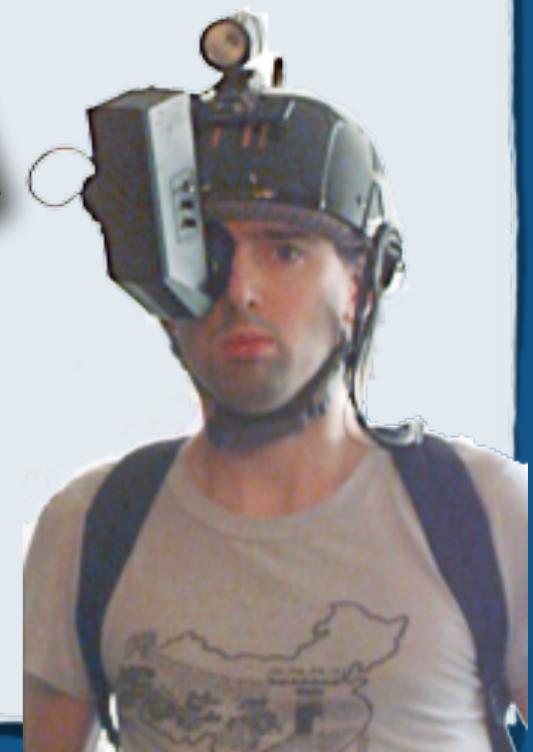
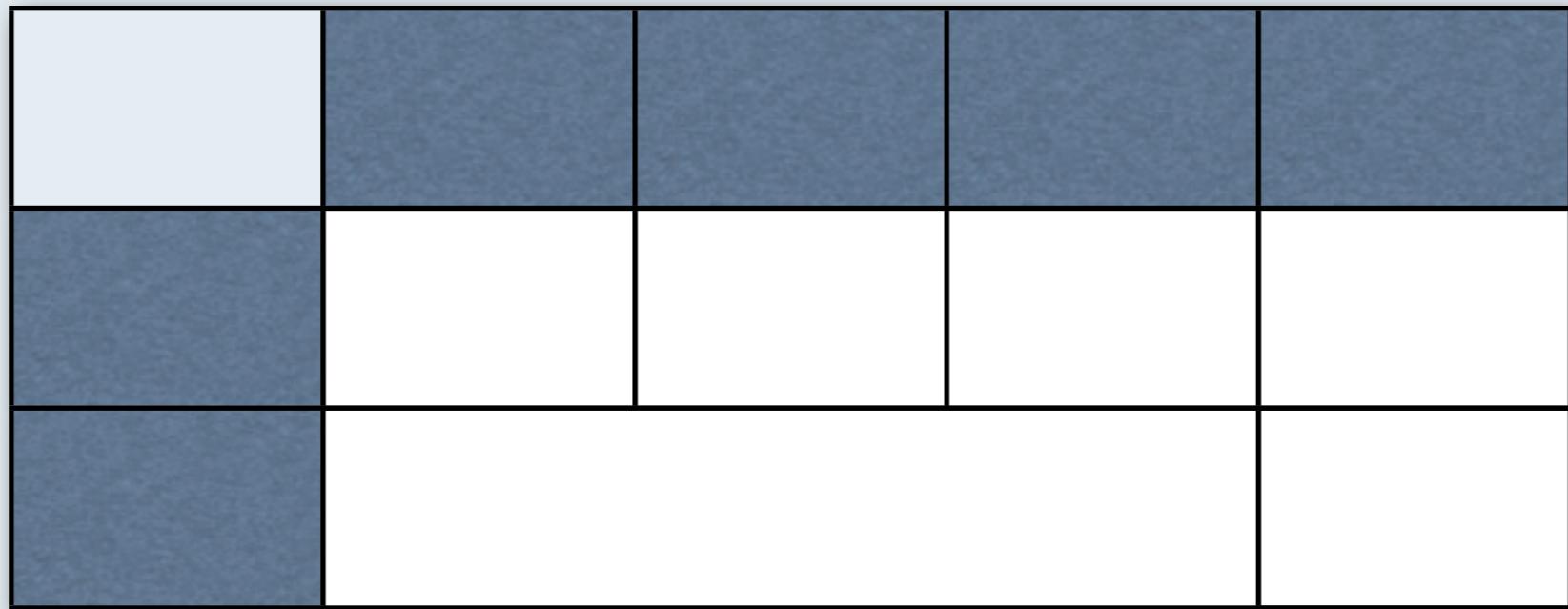
滑鼠  
言



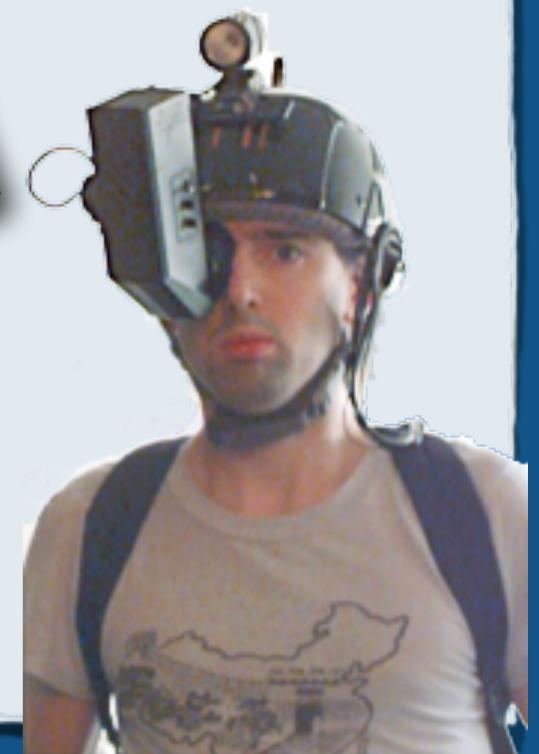
顯示器



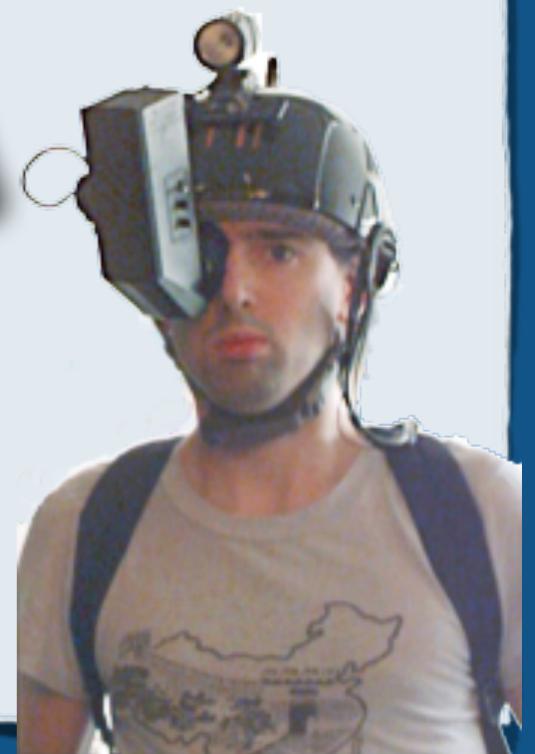




	=SUM()			0



	10	20	30	
	=SUM()			60



	10	20	30	
	=SUM()			60



1977 → 1978



1977 → 1978



1977 → 1978



+



**Integer BASIC**

1978 → 1979

# 1978 → 1979

	10	20	30	
	=SUM(		)	60

# 1978 → 1979

	A	B	C	D
1	10	20	30	
2	=SUM(		)	60

# 1978 → 1979

	A	B	C	D
1	10	20	30	
2	=SUM(A1,B1,C1)			60

# 1978 → 1979

	A	B	C	D
1	10	20	30	
2	=SUM(A1,B1,C1)			60



**Bob & Dan**

# 1978 → 1979

	A	B	C	D
1	10	20	30	
2	=SUM(A1,B1,C1)			60

► 6 年售出 700,000 套



Bob & Dan

# 1978 → 1979

	A	B	C	D
1	10	20	30	
2	=SUM(A1,B1,C1)			60

- ▶ 6 年售出 700,000 套
- ▶ 「殺手級應用」的始祖

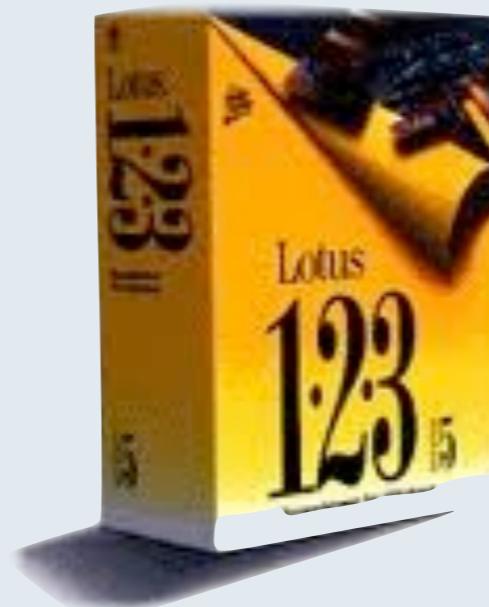


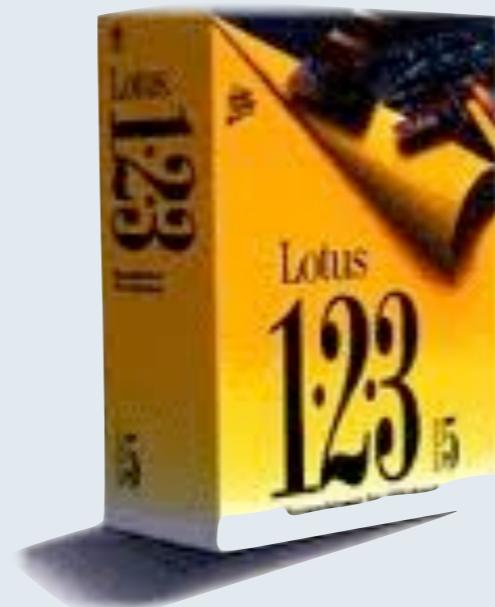
Bob & Dan

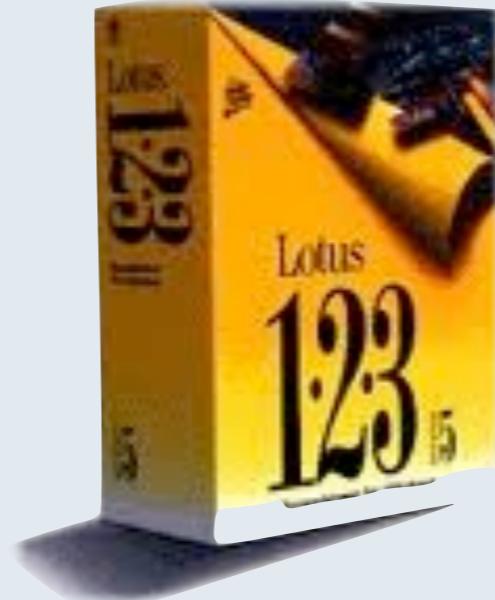
# 1981

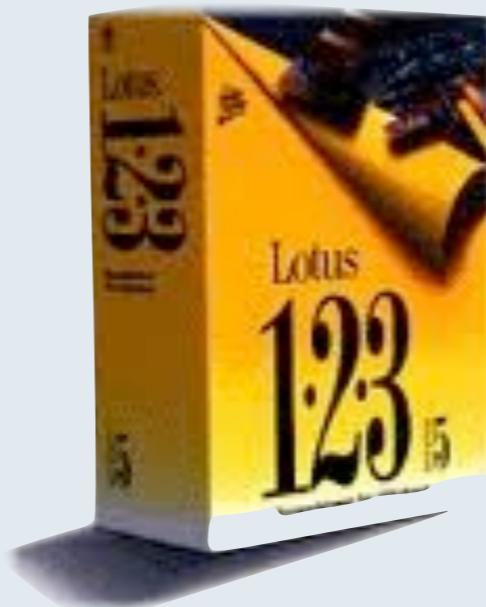








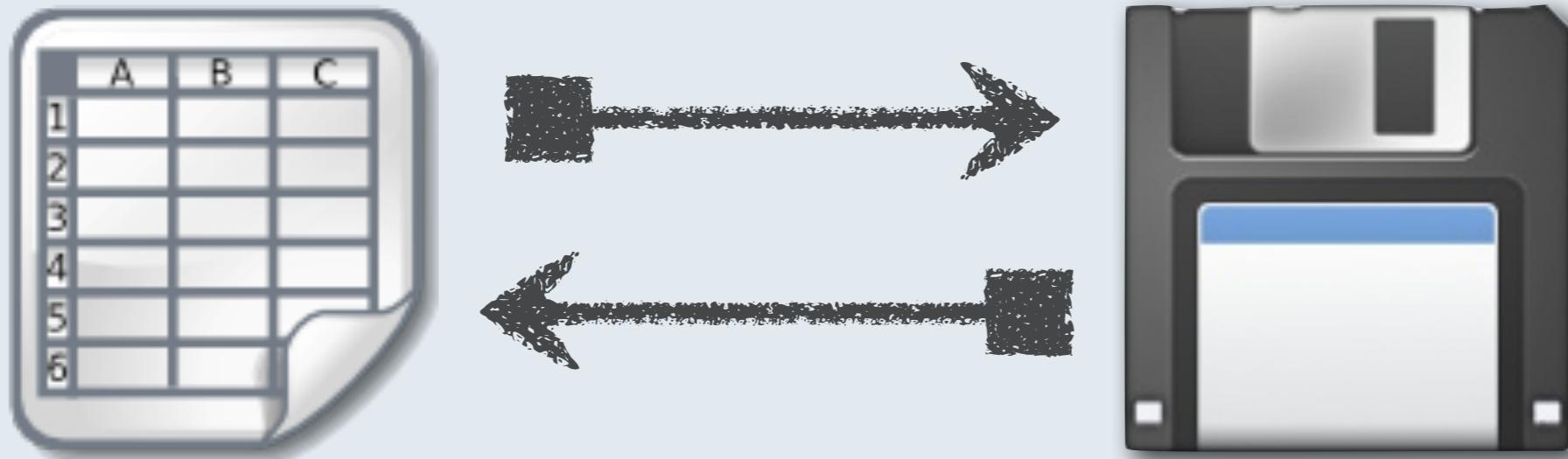




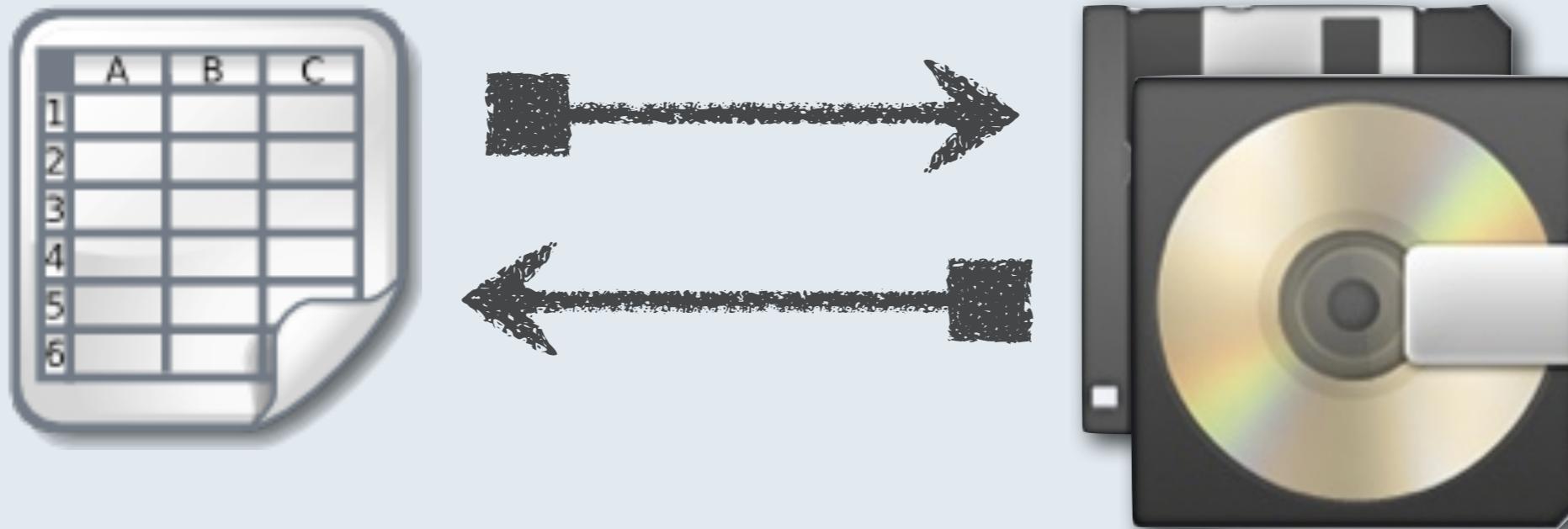
# ——十年來



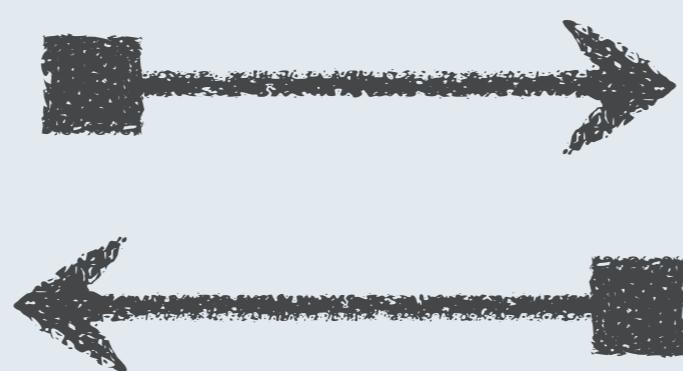
# ——十年來



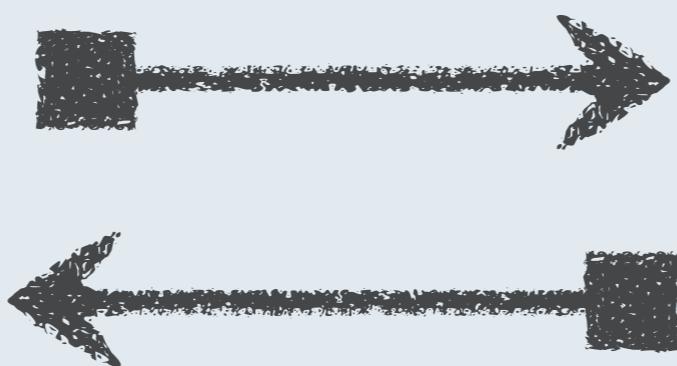
— 十年來



— 十年來

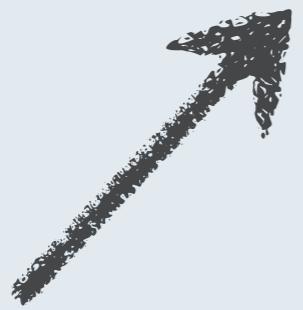


——十年來



始終如一





“打不開”

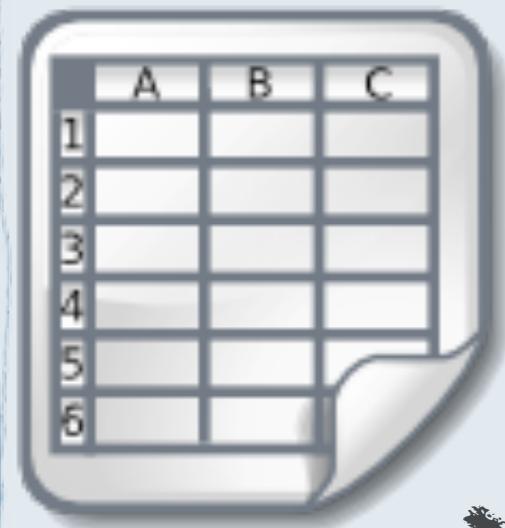




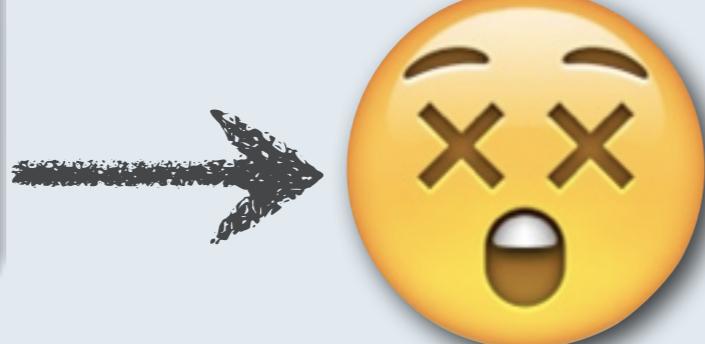
“打不開”



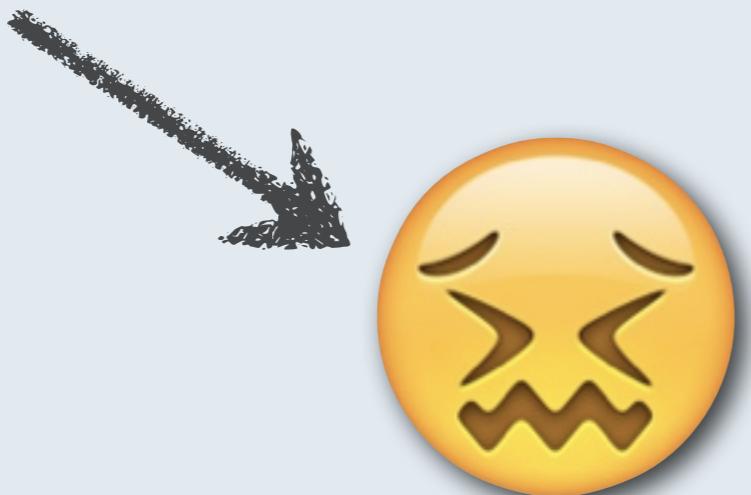
“變亂碼”



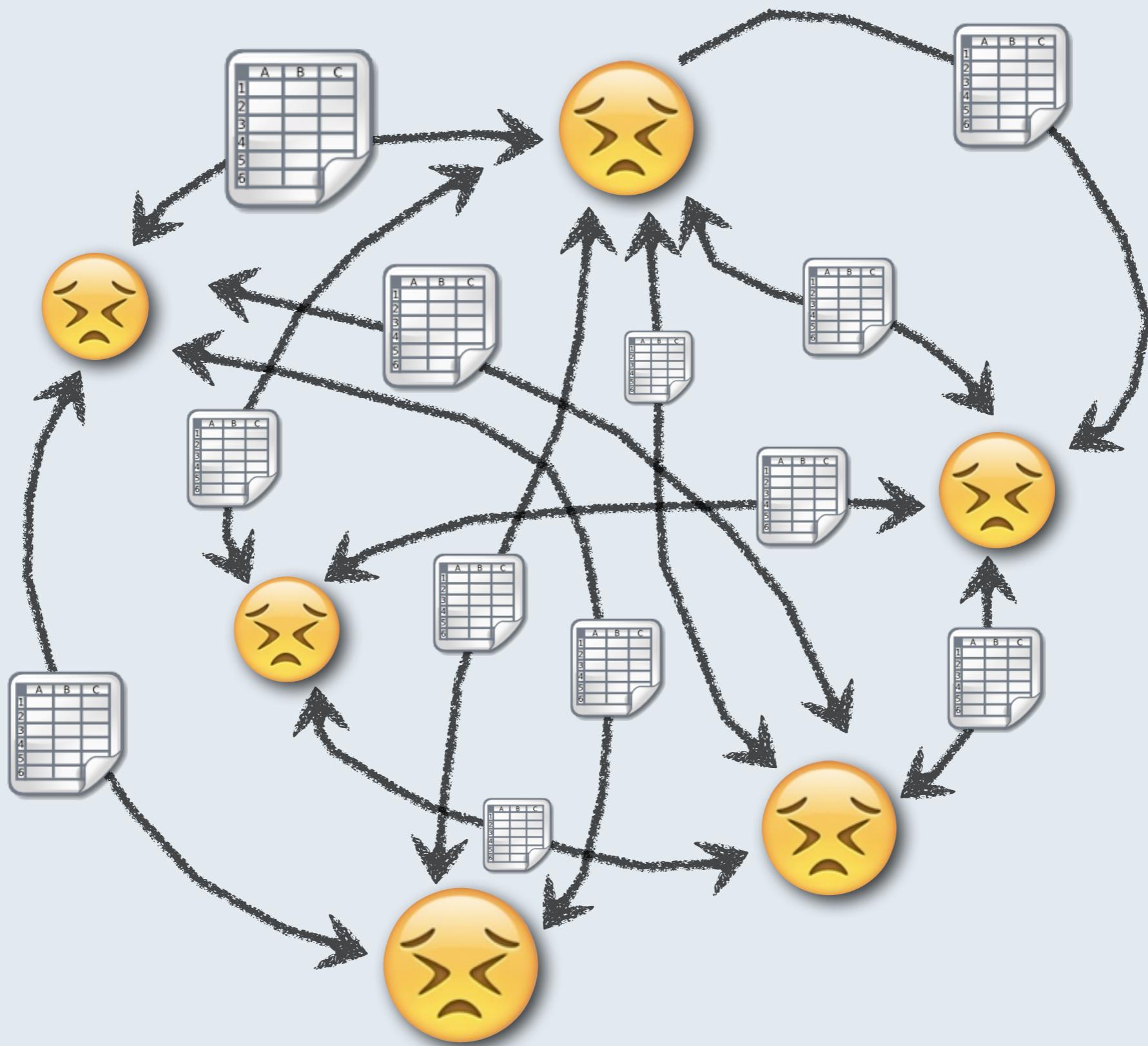
“打不開”



“變亂碼”



“有病毒！”



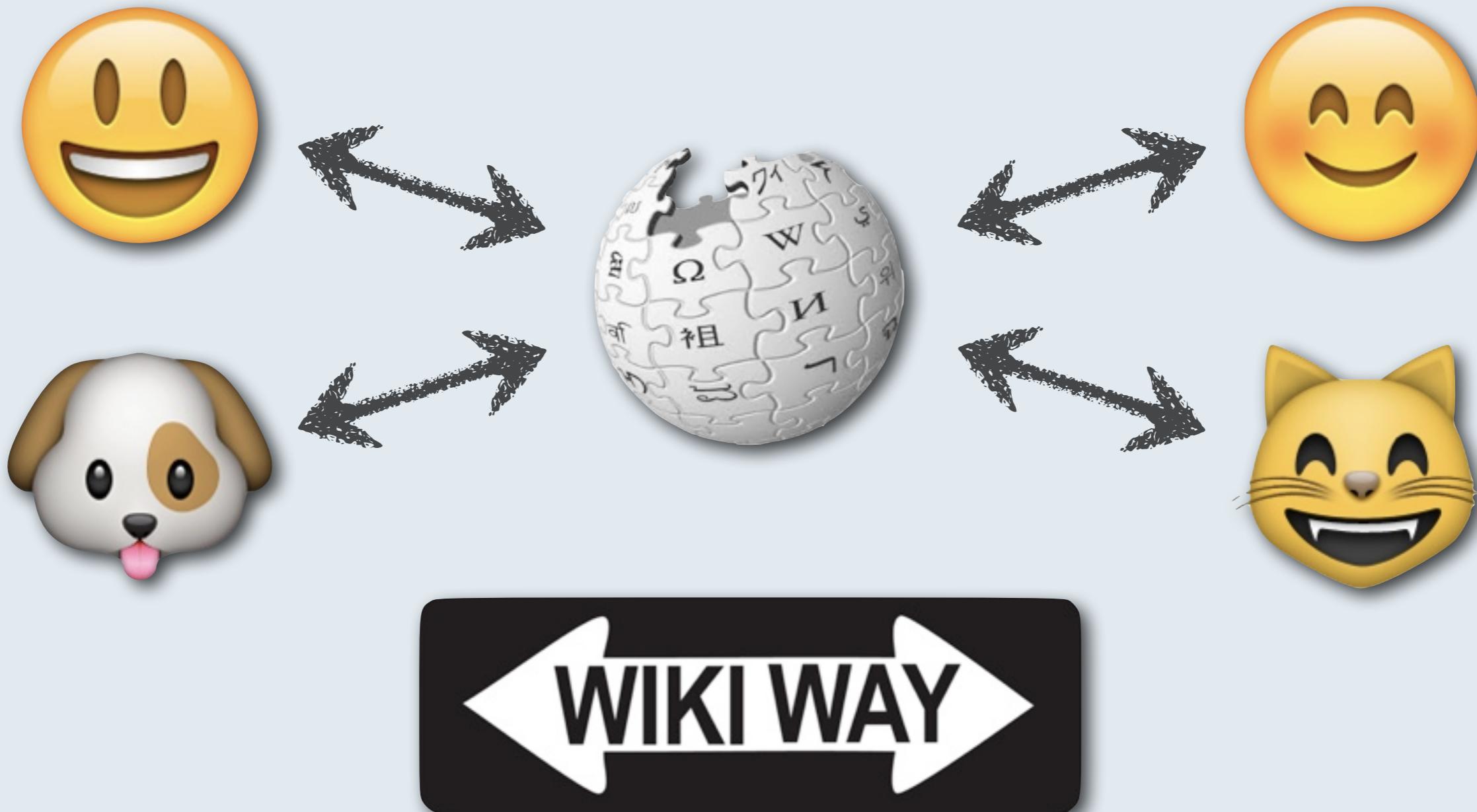
# 維基百科, 2001



# 維基百科, 2001



# 維基百科, 2001



# wikiCalc, 2005

Page

Edit

Format

Publish

Tools

Quit

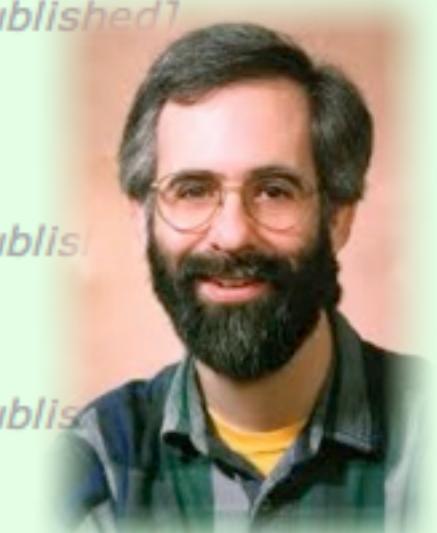
## PAGE SELECTION

This is where you choose which page you want to edit. You can also change which site you are editing. Open a page for editing by pressing the appropriate Edit button. It will be copied from the server and you will be editing that copy. Modified pages may be published (which updates the copy on the server) and editing closed by pressing the appropriate Publish button.

## Pages You Can Edit On Site: Site setup by Demonstration Setup (demosite)

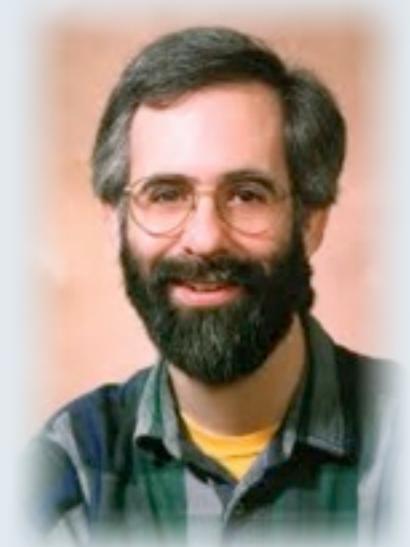
Your author name is: demoauthor

Edit Buttons  View On Web Buttons  Delete and Abandon Edit Buttons

FILENAME	FULL NAME	EDIT STATUS	PUBLISH STATUS
ax.html	axax	<b>Currently being edited</b> Last modified: Apr 24, 2011 07:10:48	[Not Published] 
demopage1.html	<b>wikiCalc Demonstration Page</b>	<b>Open for editing</b> Not modified	[Not Published]
f11.html	bar	<b>Open for editing</b> Last modified: Apr 24, 2011 07:10:48	[Not Published]

# wikiCalc, 2005

- ✓ 跨伺服器引用數值。



# wikiCalc, 2005

- ✓ 跨伺服器引用數值。
- ✓ 保留每個版本，可隨時回復。



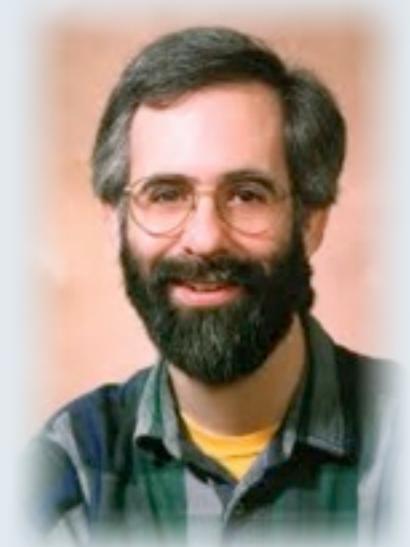
# wikiCalc, 2005

- ✓ 跨伺服器引用數值。
- ✓ 保留每個版本，可隨時回復。
- ✓ 支援純文字、HTML、Wiki 語法。



# wikiCalc, 2005

- ✓ 跨伺服器引用數值。
- ✓ 保留每個版本，可隨時回復。
- ✓ 支援純文字、HTML、Wiki 語法。
- ✓ 開放源碼！



**wikiCalc.pl**

# wikiCalc.pl

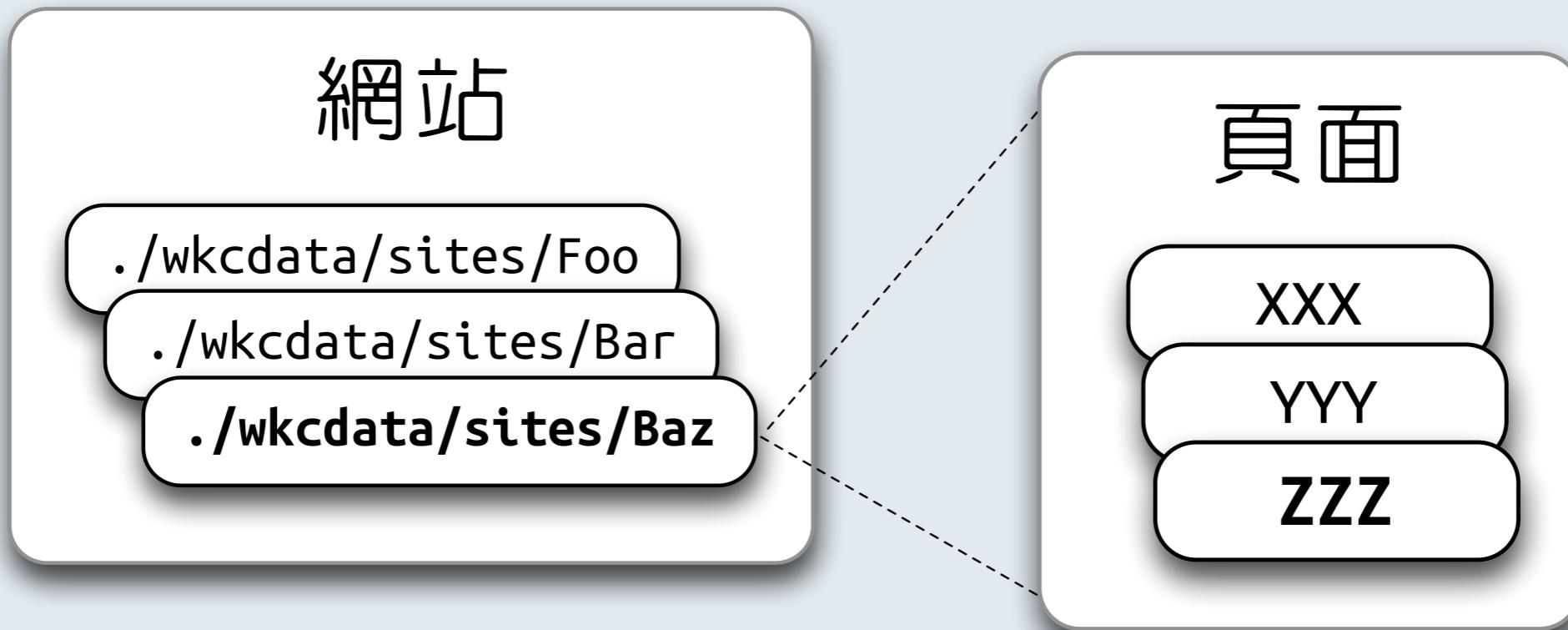
網站

`./wkcdatal/sites/Foo`

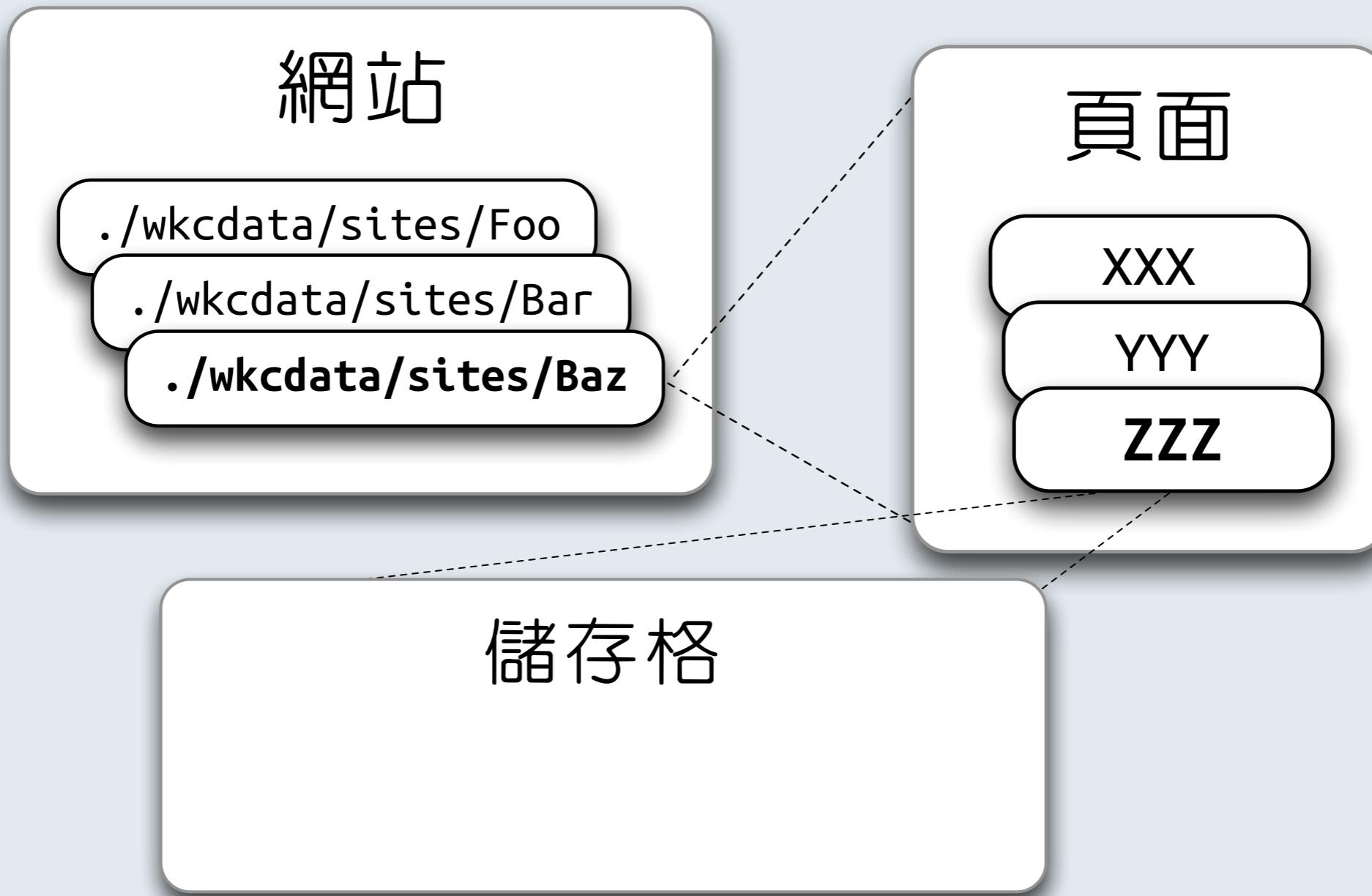
`./wkcdatal/sites/Bar`

`./wkcdatal/sites/Baz`

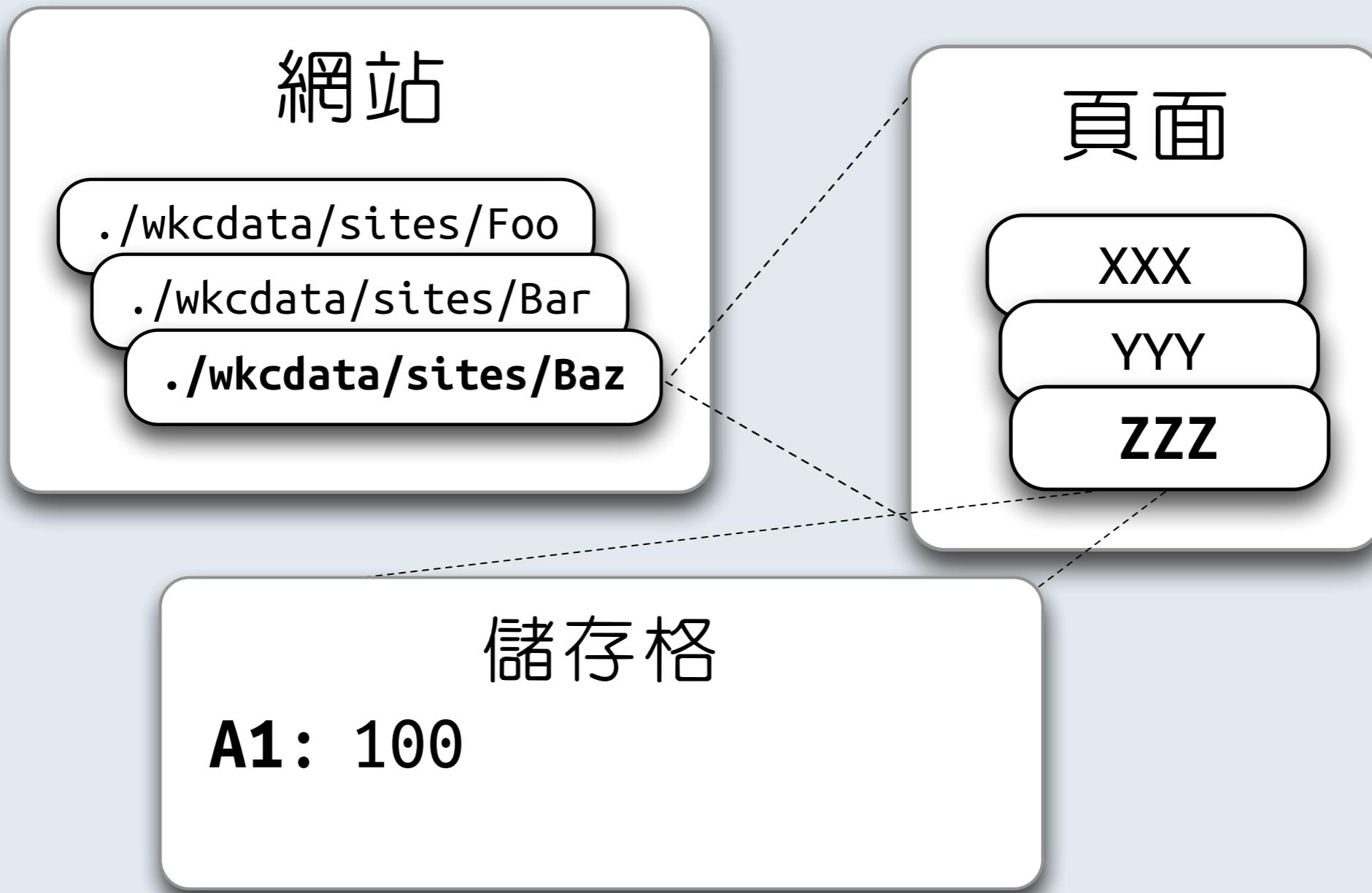
# wikiCalc.pl



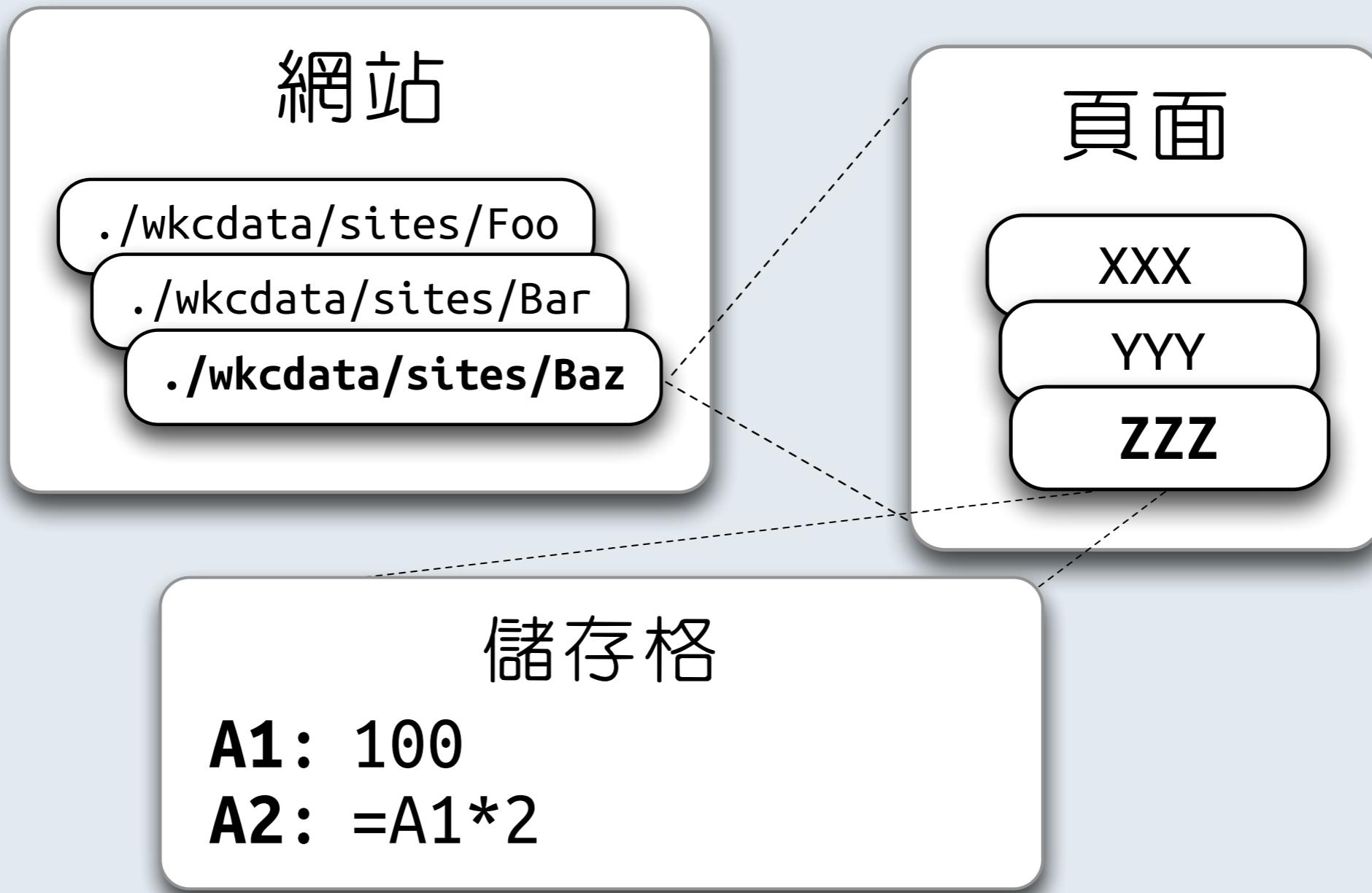
# wikiCalc.pl



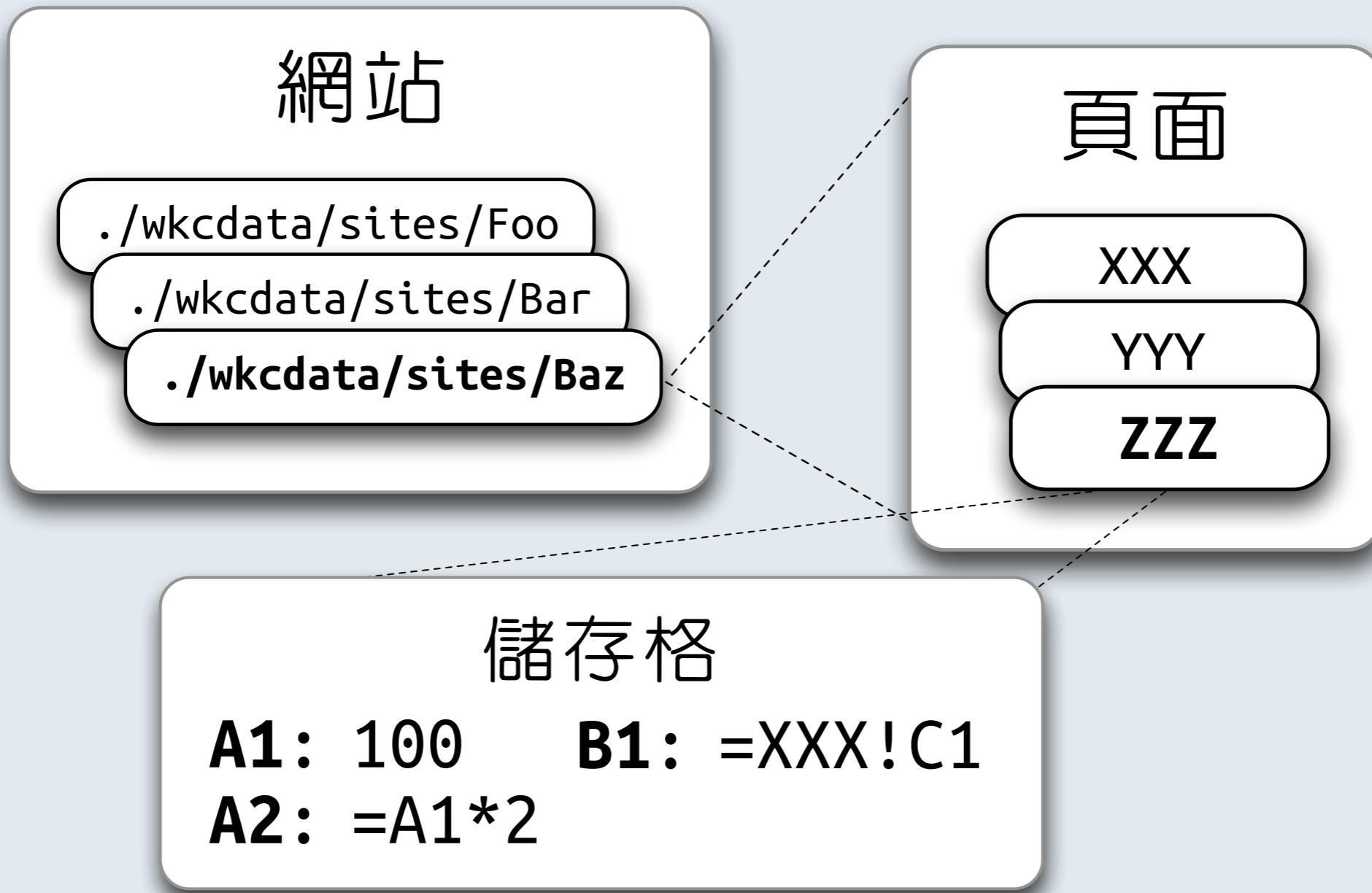
# wikiCalc.pl



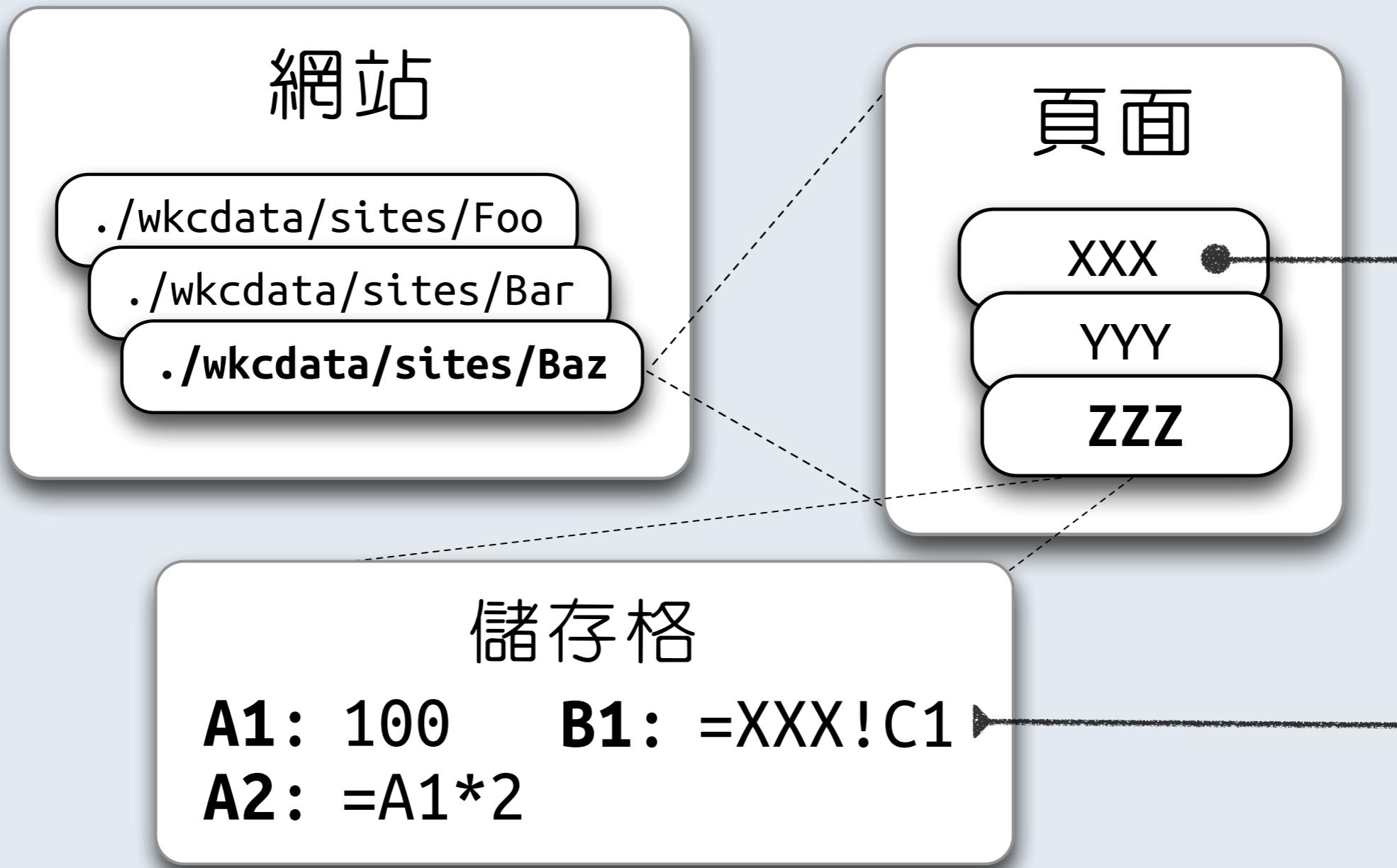
# wikiCalc.pl



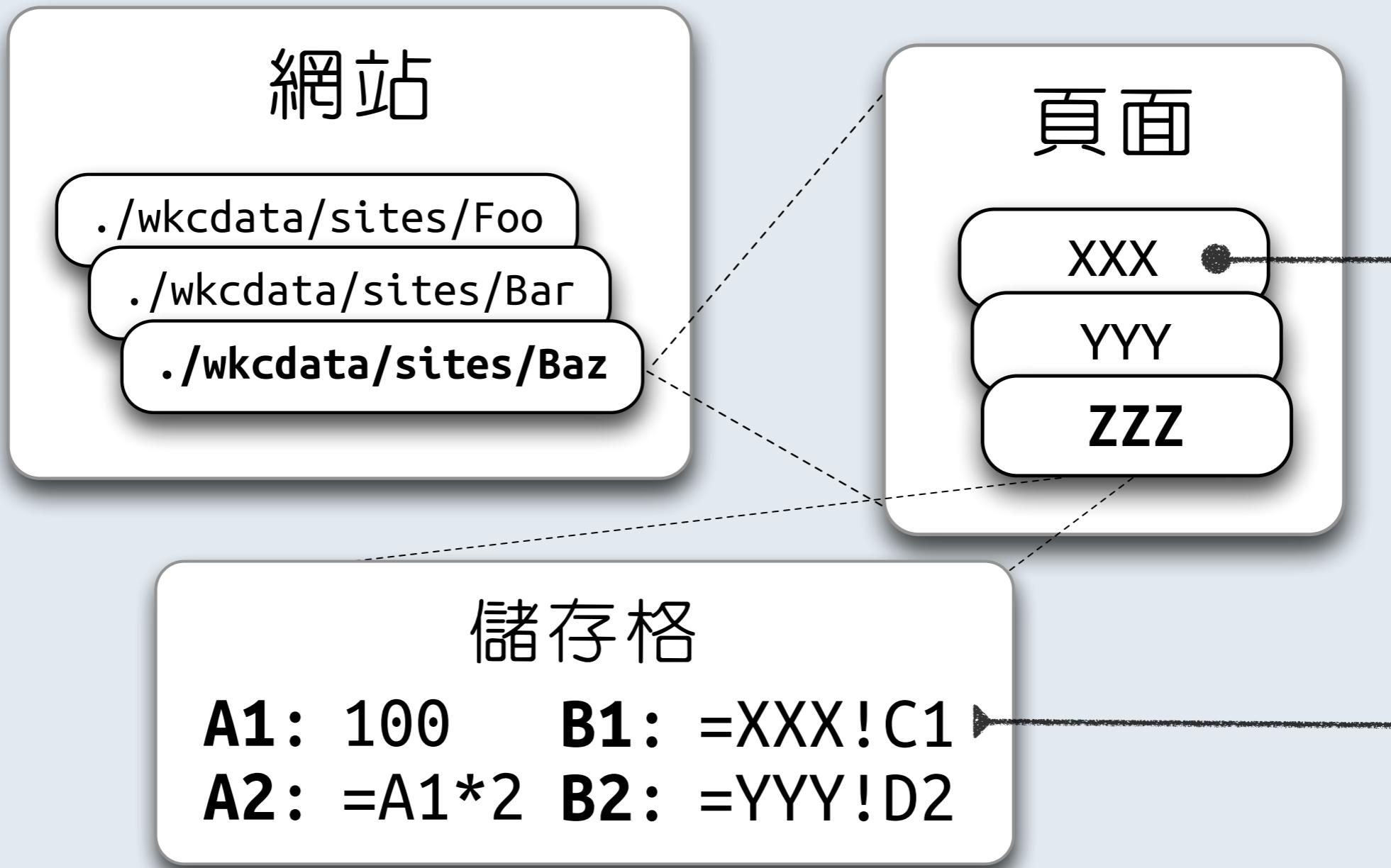
# wikiCalc.pl



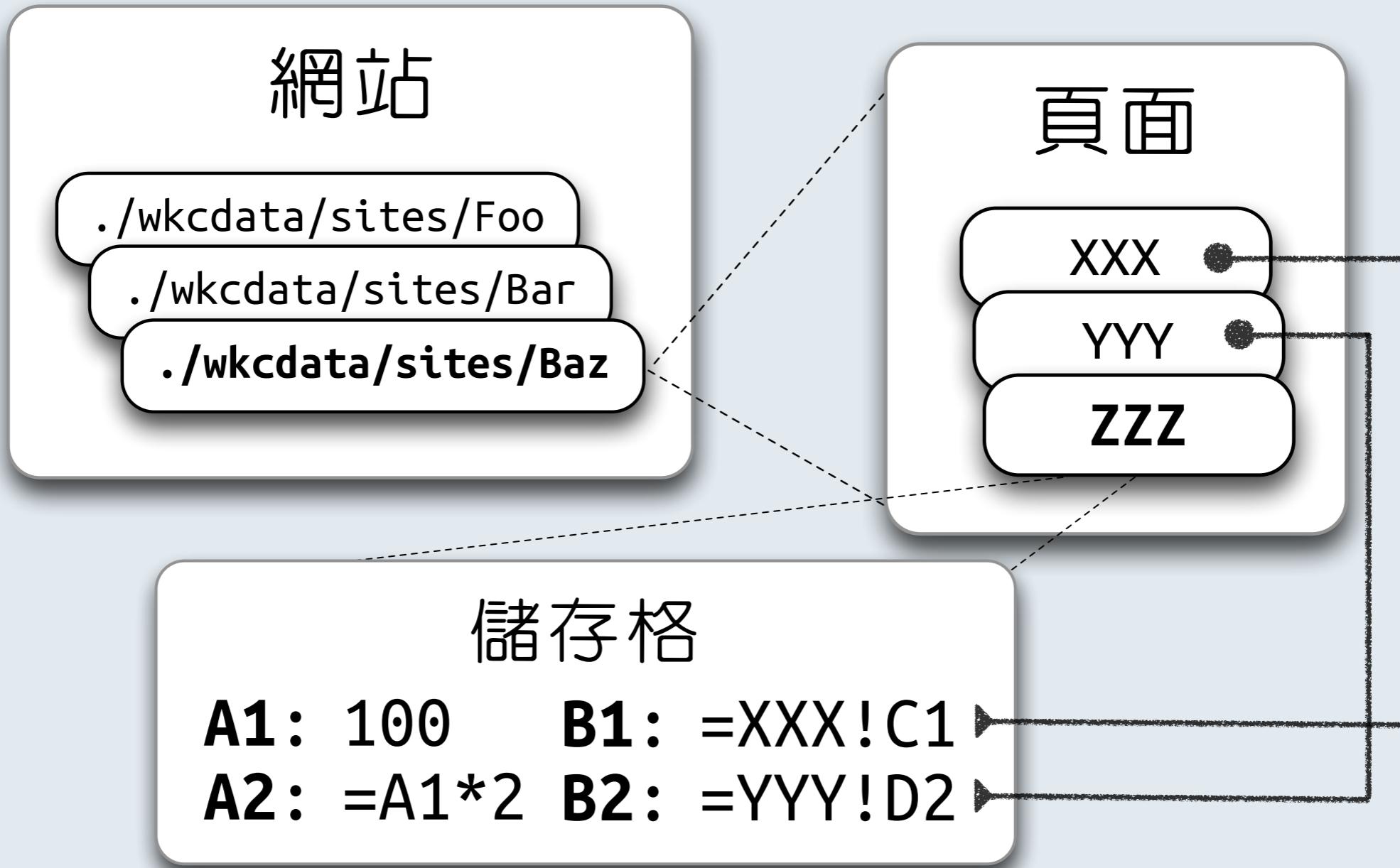
# wikiCalc.pl



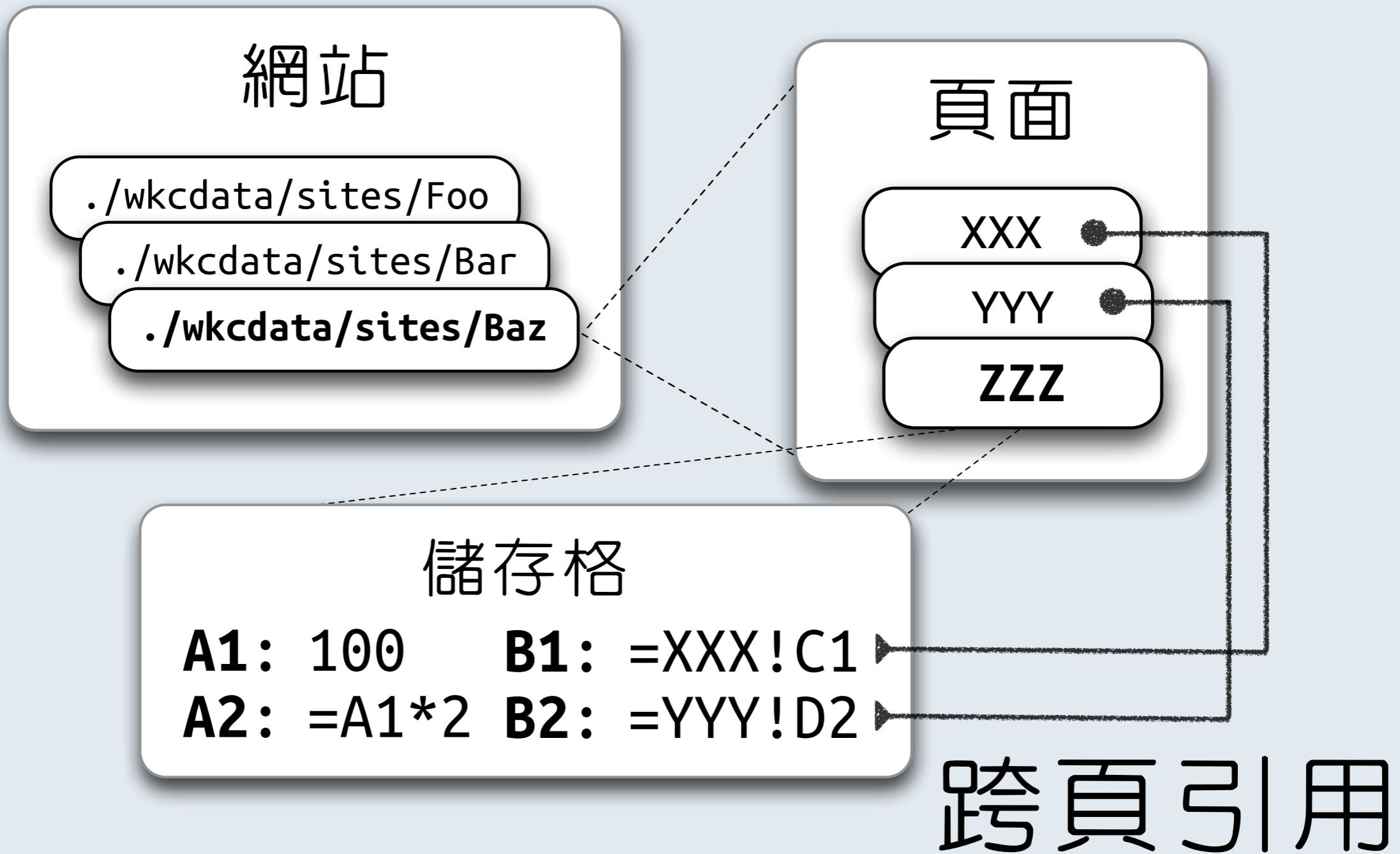
# wikiCalc.pl



# wikiCalc.pl

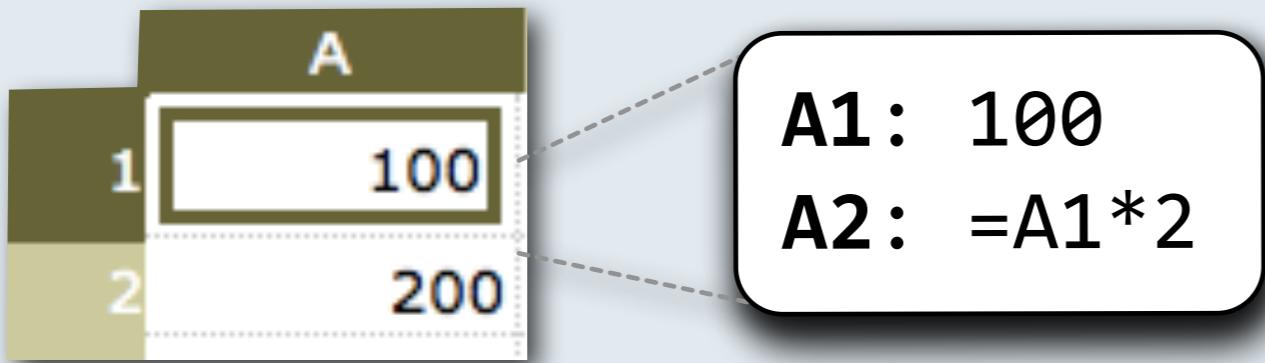


# wikiCalc.pl

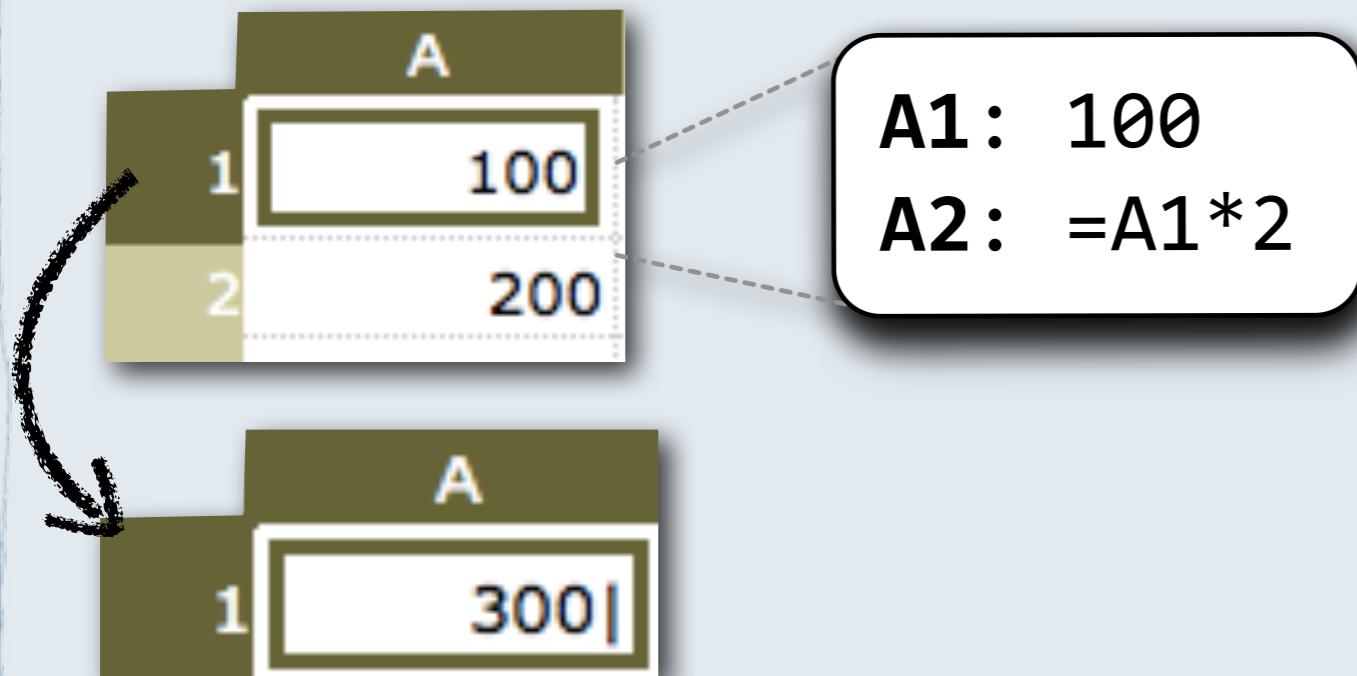


# wikiCalc 編輯流程

# wikiCalc 編輯流程



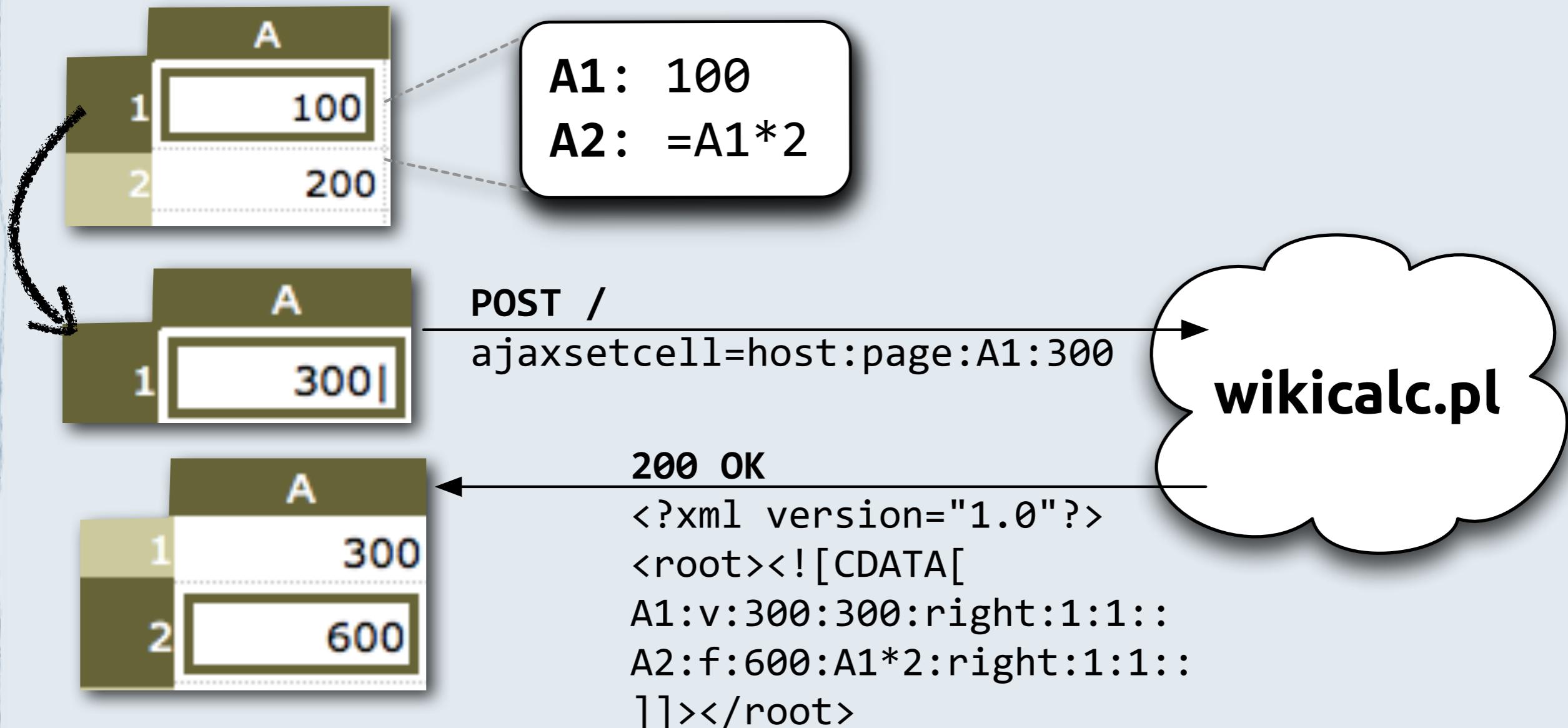
# wikiCalc 編輯流程



# wikiCalc 編輯流程



# wikiCalc 編輯流程



“載入中...”

# “載入中...”

	A	B	C	D
1	Loading...			
2				
3	Sample financial calculation in a table with borders			
4				
5				
6				

	Year	2006	2007
Sales	Loading...	170.5	
Cost	124.0	136.4	
Profit	31.0	34.1	

# “載入中...”

	A	B	C	D
1	Loading...			
2				
3	Sample financial calculation in a table with borders	Year	2006	2007
4		Sales	Loading...	170.5
5		Cost	124.0	136.4
6		Profit	31.0	34.1

# “C100k”問題

# “載入中...”

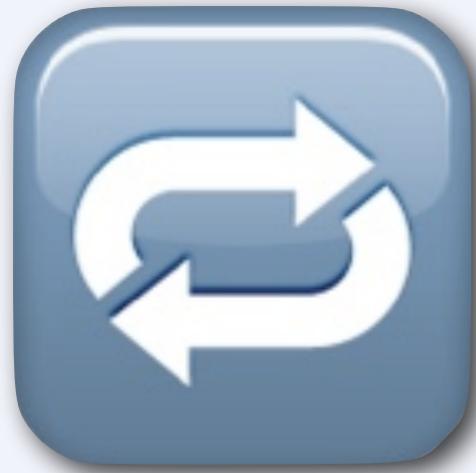
	A	B	C	D
1	Loading...			
2				
3	Sample financial calculation in a table with borders			
4				
5				
6				

:(

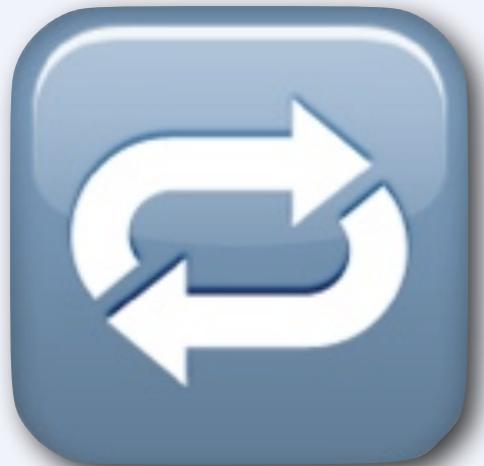
	2006	2007
Cost	124.0	136.4
Profit	31.0	34.1

# “C100k”問題





打掉重練



打掉重練



原土建重建

# SocialCalc, 2006



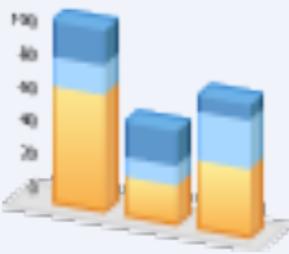
Dan Bricklin



Ross Mayfield

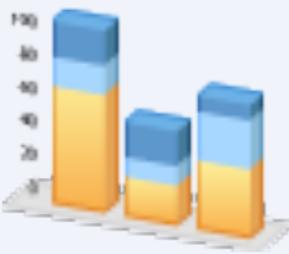


# 設計目標



## 設計目標

- ▶ 引擎用 JavaScript 重寫。



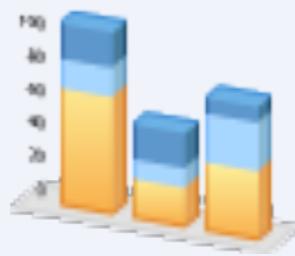
## 設計目標

- ▶ 引擎用 JavaScript 重寫。
- ▶ 即時編輯及還原/重作。



## 設計目標

- ▶ 引擎用 JavaScript 重寫。
- ▶ 即時編輯及還原/重作。
- ▶ 能處理十萬個儲存格。



# 系統架構



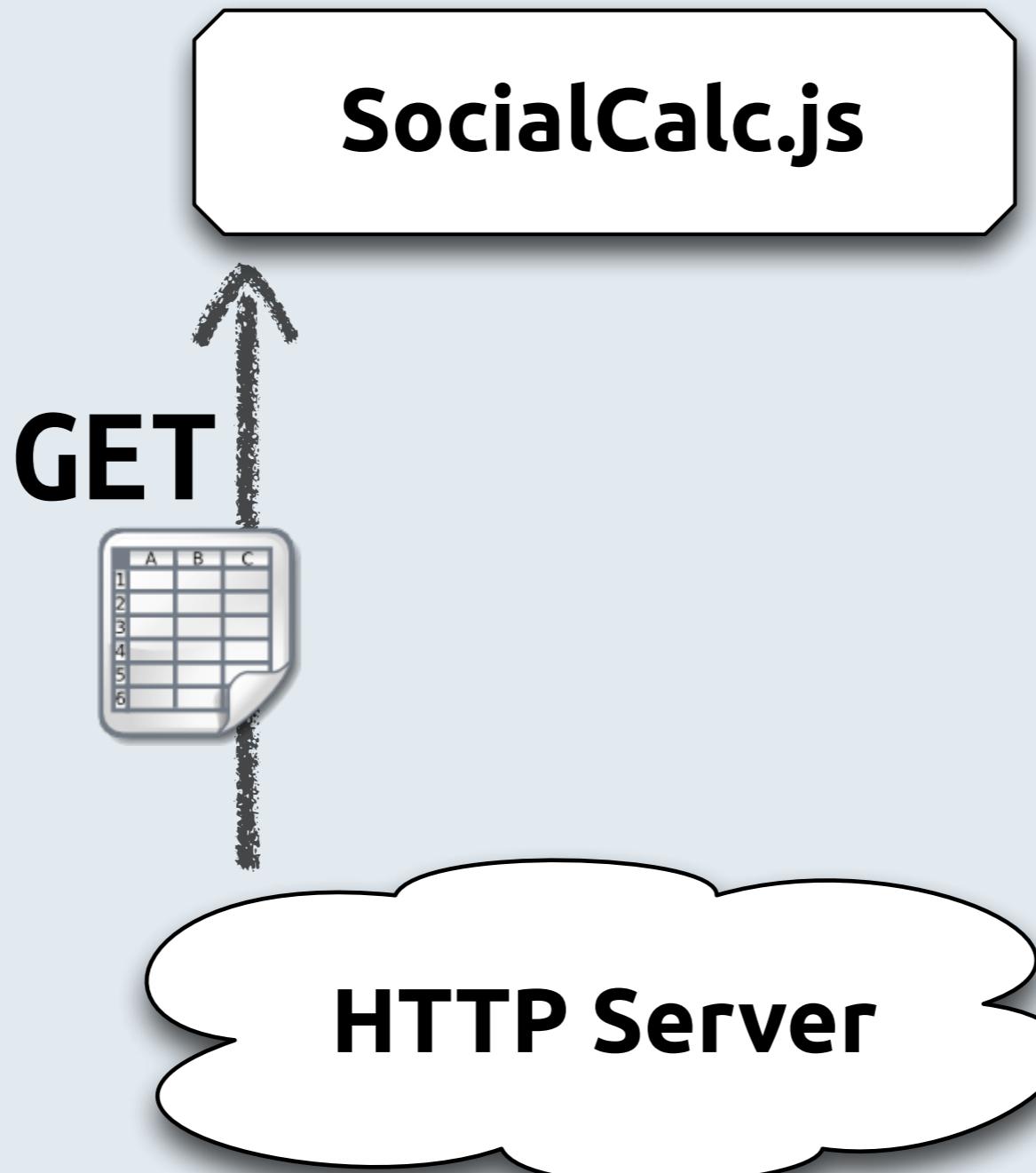
# 系統架構

**SocialCalc.js**

**HTTP Server**

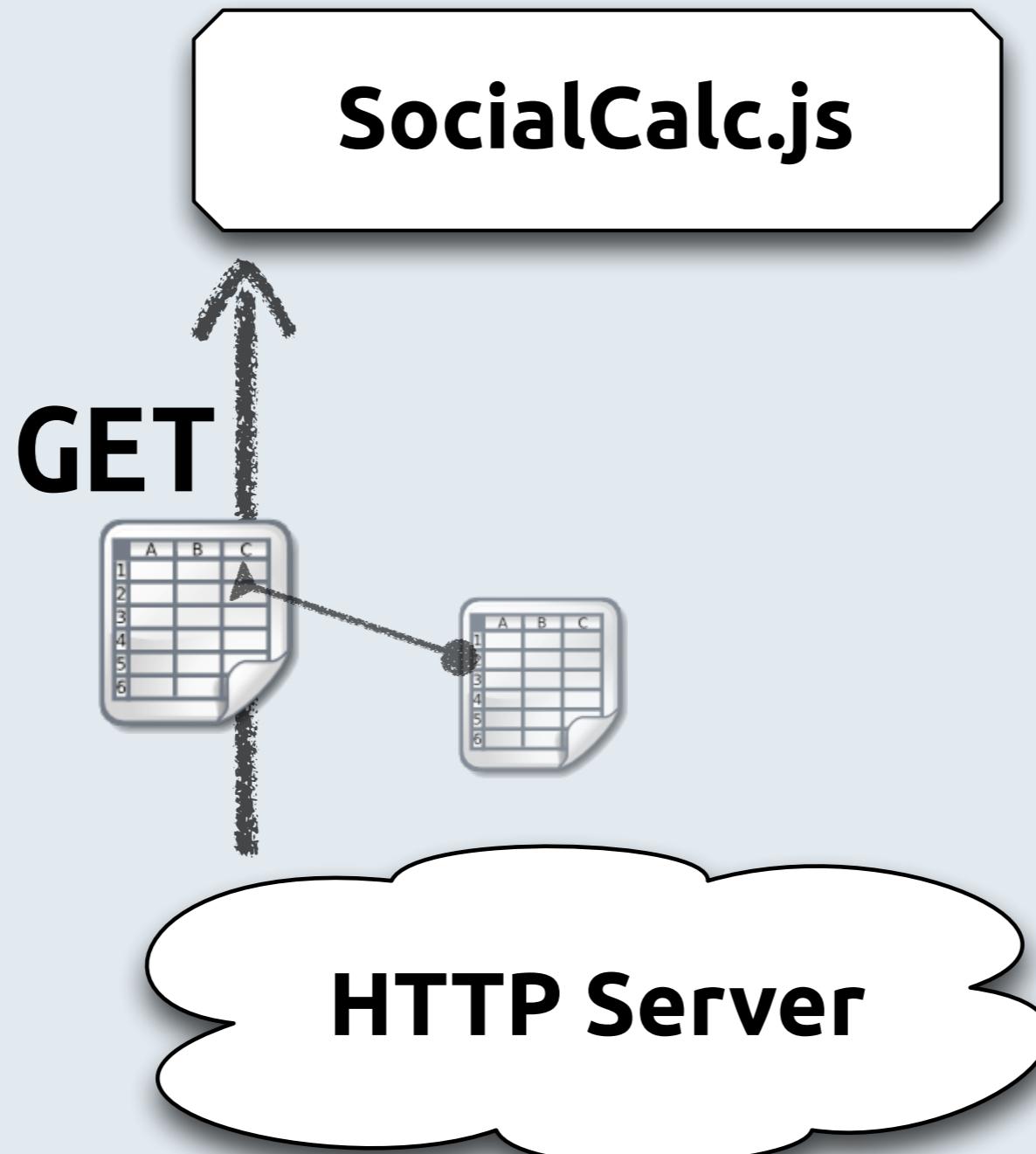


# 系統架構



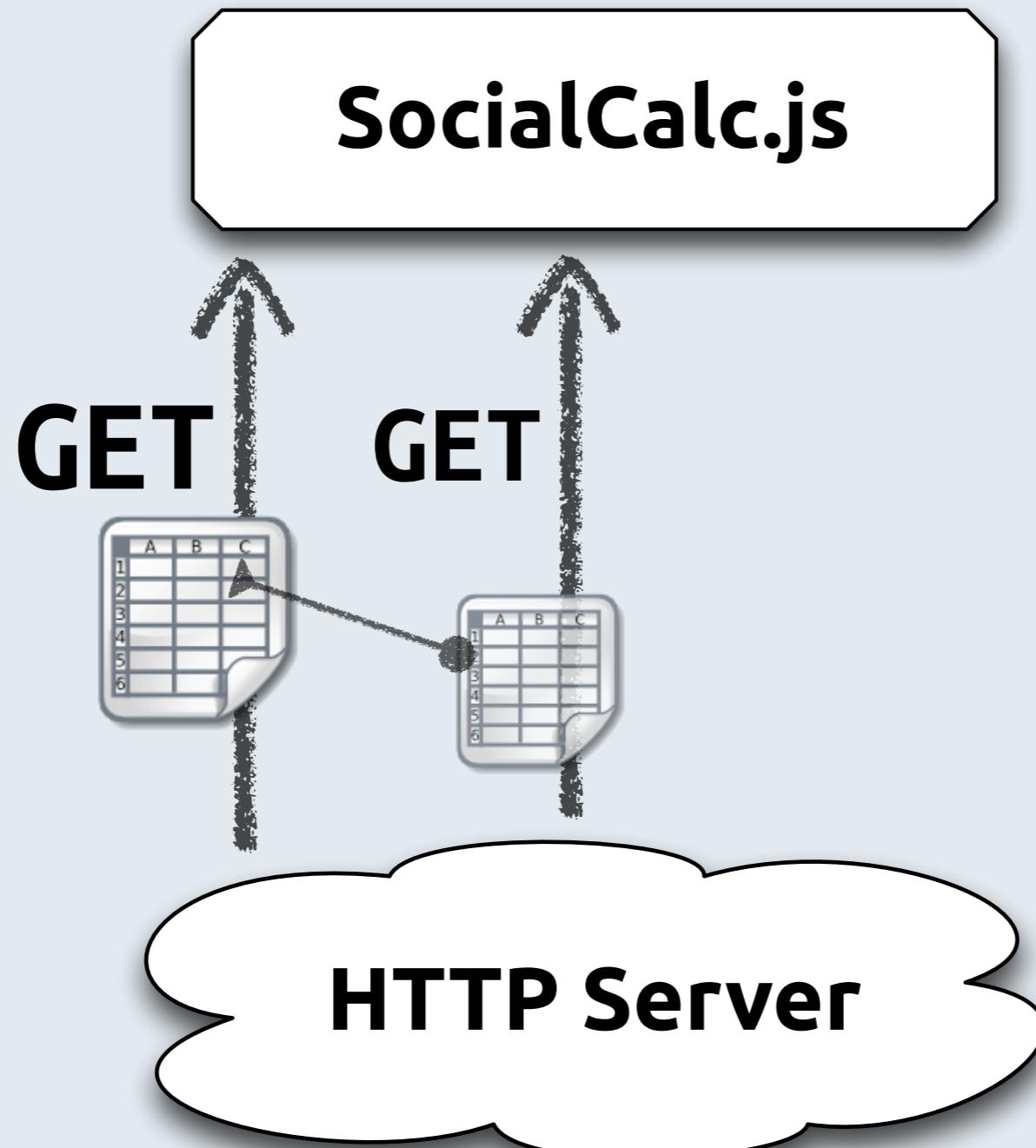


# 系統架構



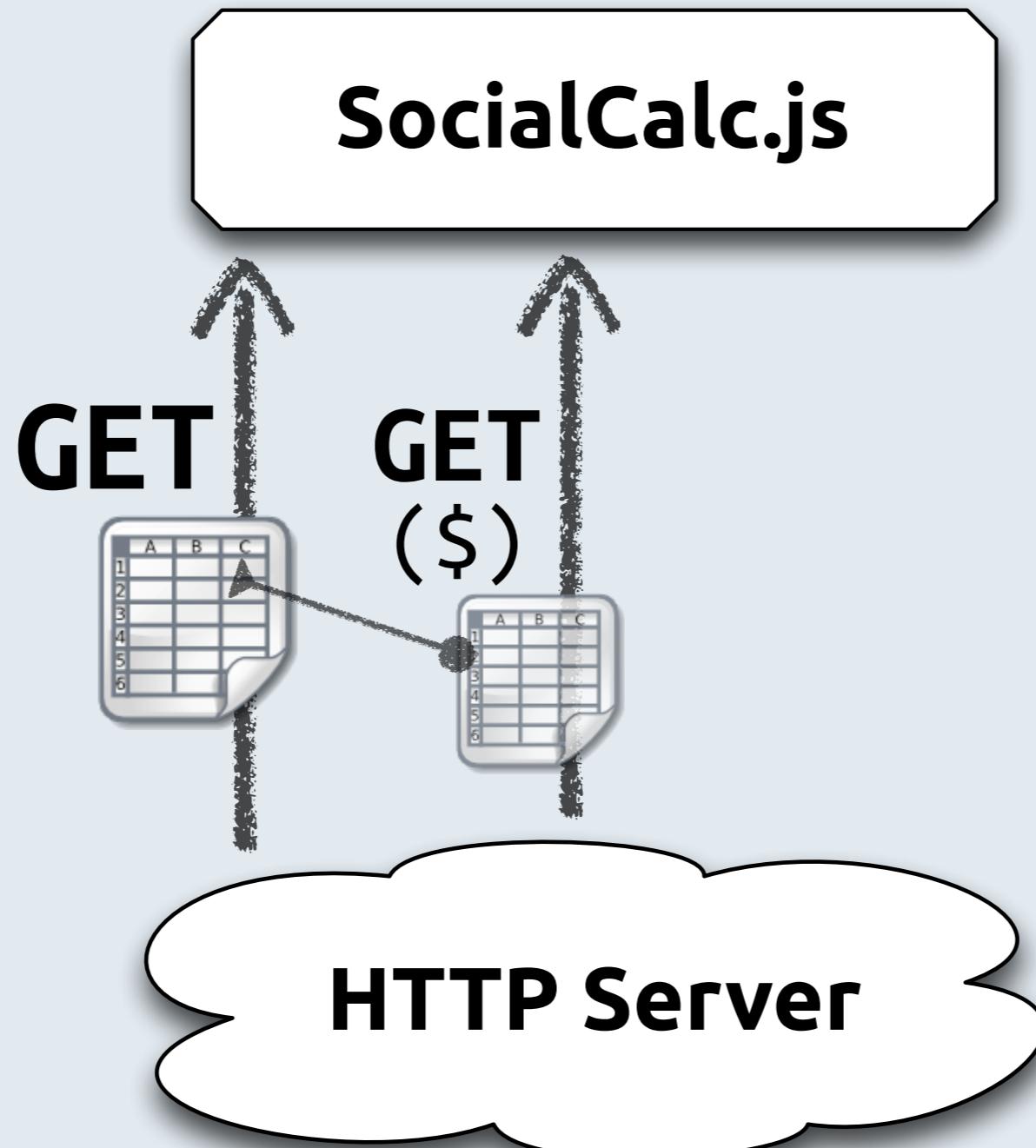


# 系統架構



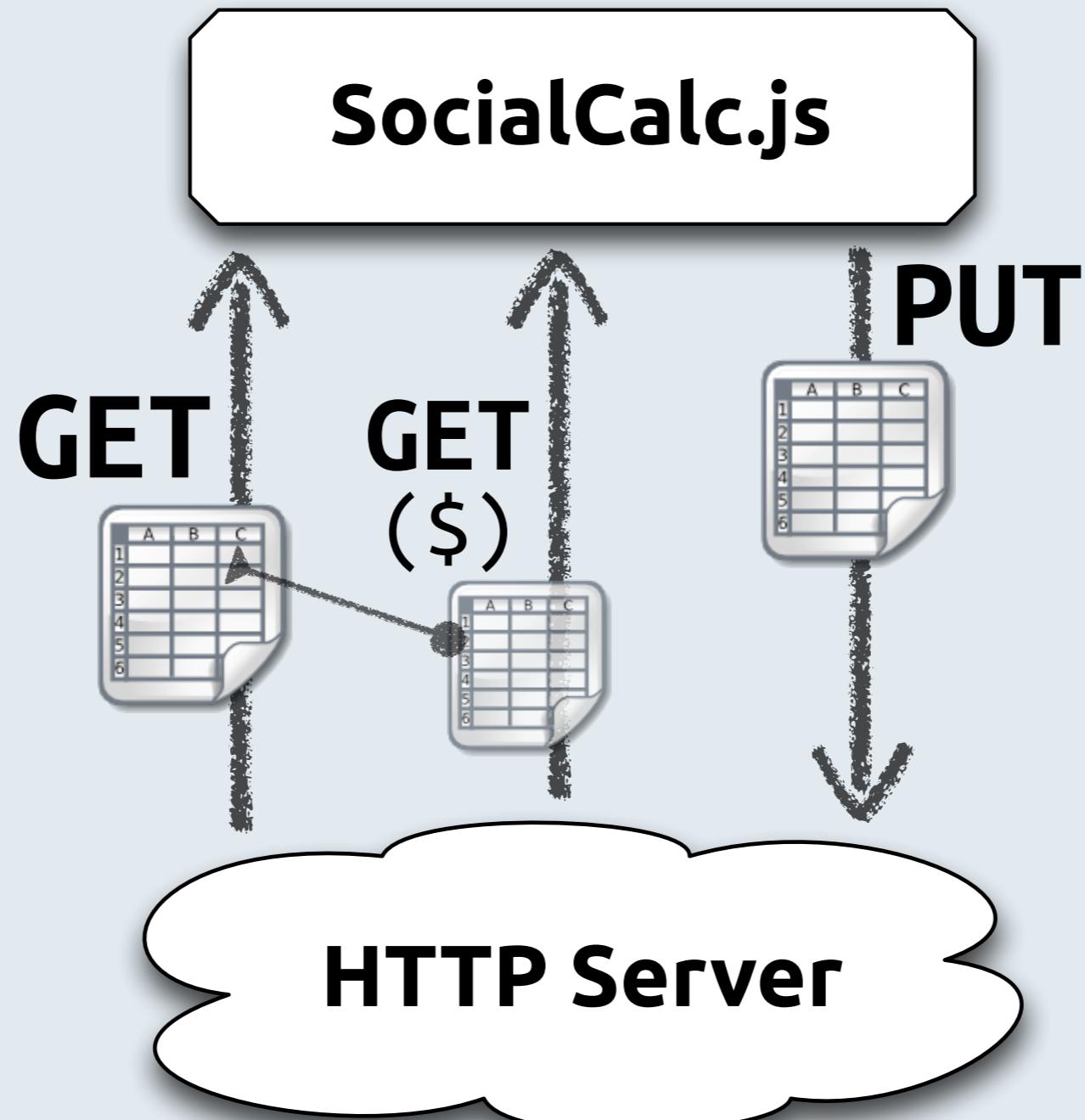


# 系統架構



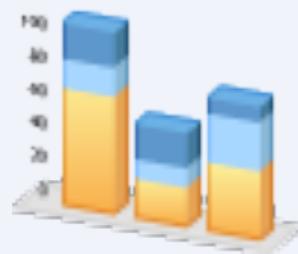


# 系統架構



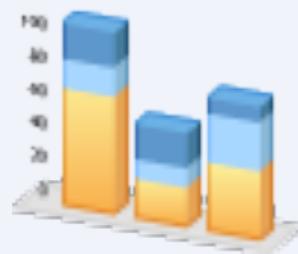


# 指令設計模式



# 指令設計模式

**set A1 value n 42**



# 指令設計模式

**set A1 value n 42**

**set A2 formula A1\*2**



# 指令設計模式

**set A1 value n 42**

**set A2 formula A1\*2**

**merge A1:B2**

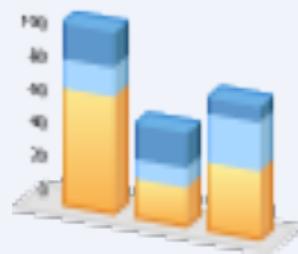
**cut A3**

**paste A4**

**sort A1:B9 A up B down**

**set sheet defaultcolor blue**

**...**

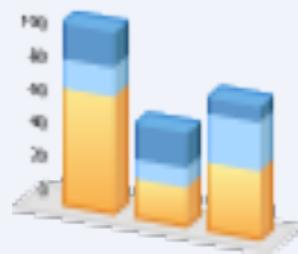


## 指令設計模式

```
set A1 value n 42
```

```
set A2 formula A1*2
```

- ▶ 背景處理計算。



# 指令設計模式

```
set A1 value n 42
```

```
set A2 formula A1*2
```

- ▶ 背景處理計算。
- ▶ 無限次還原重做。



# 指令設計模式

```
set A1 value n 42
```

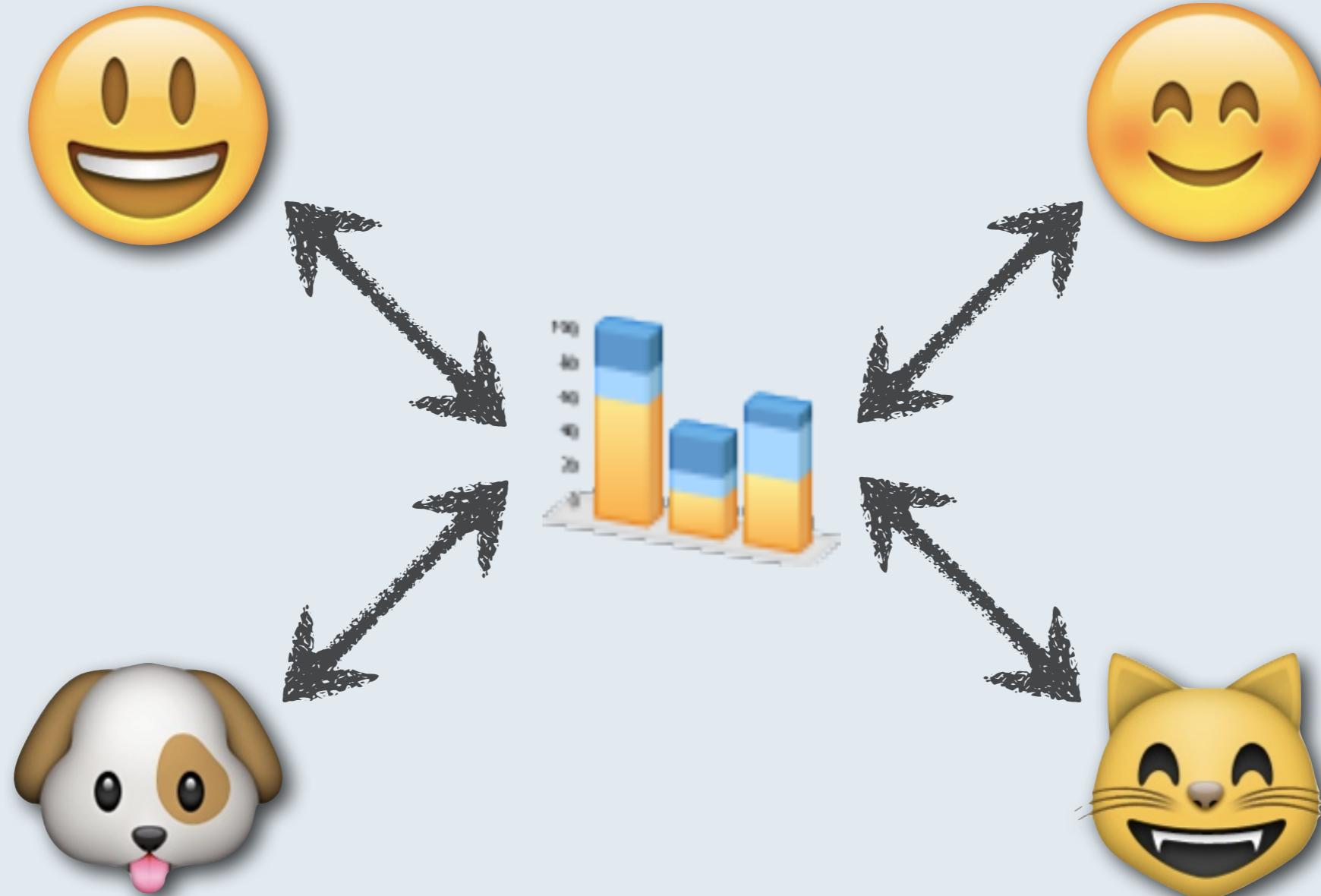
```
set A2 formula A1*2
```

- ▶ 背景處理計算。
- ▶ 無限次還原重做。
- ▶ 鍵盤滑鼠隨時可用！

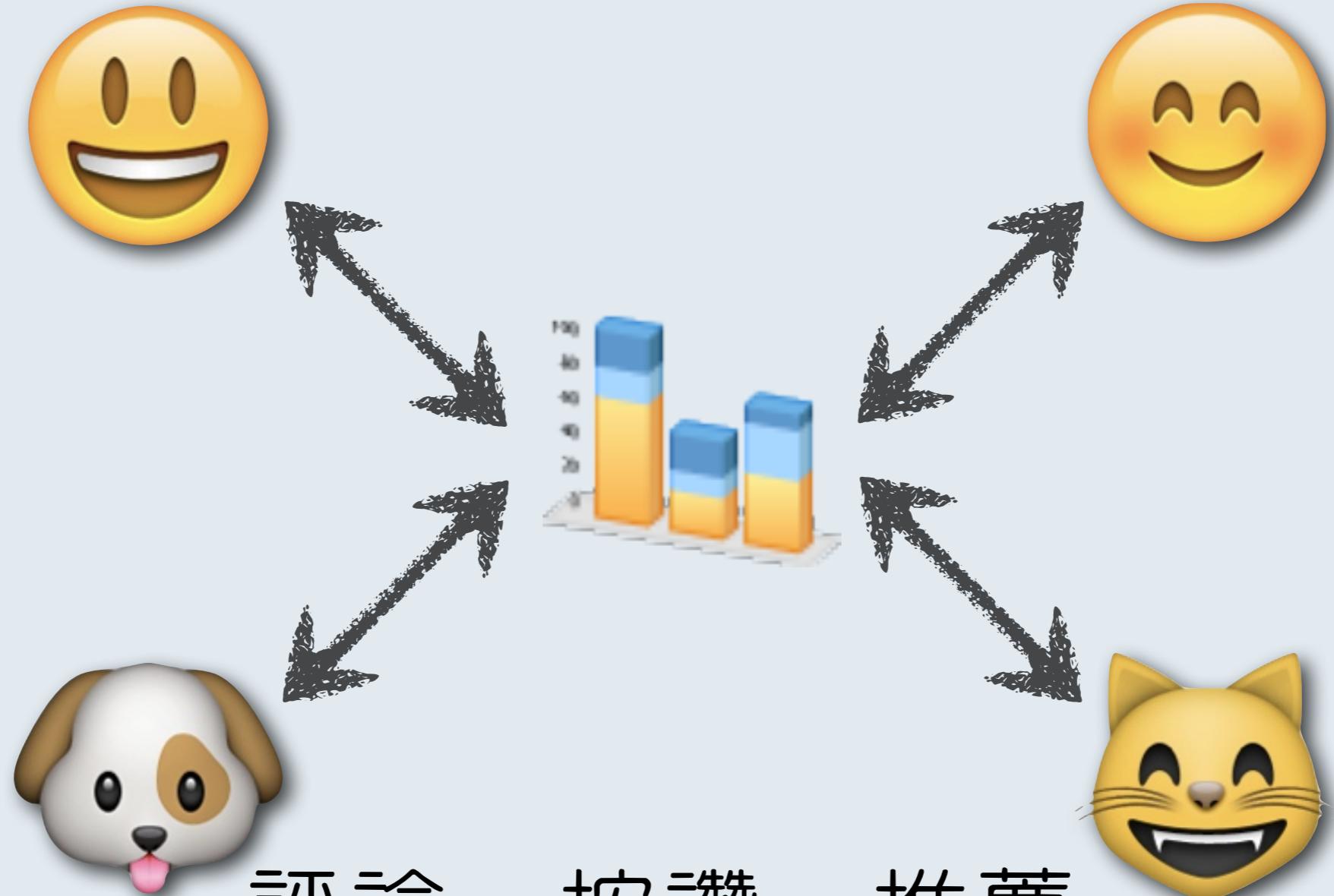
# “社會化”試算表



# “社會化”試算表

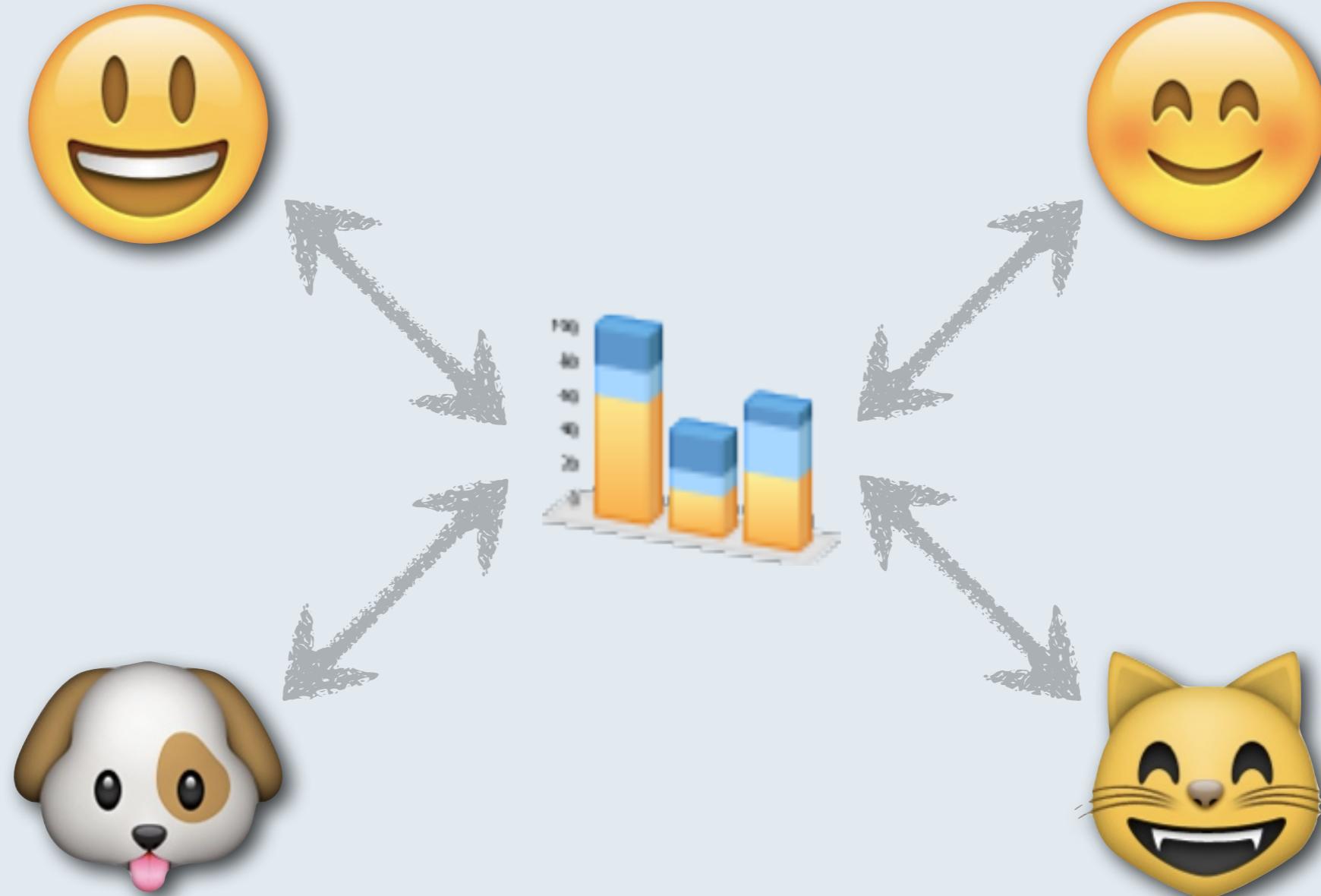


# “社會化”試算表

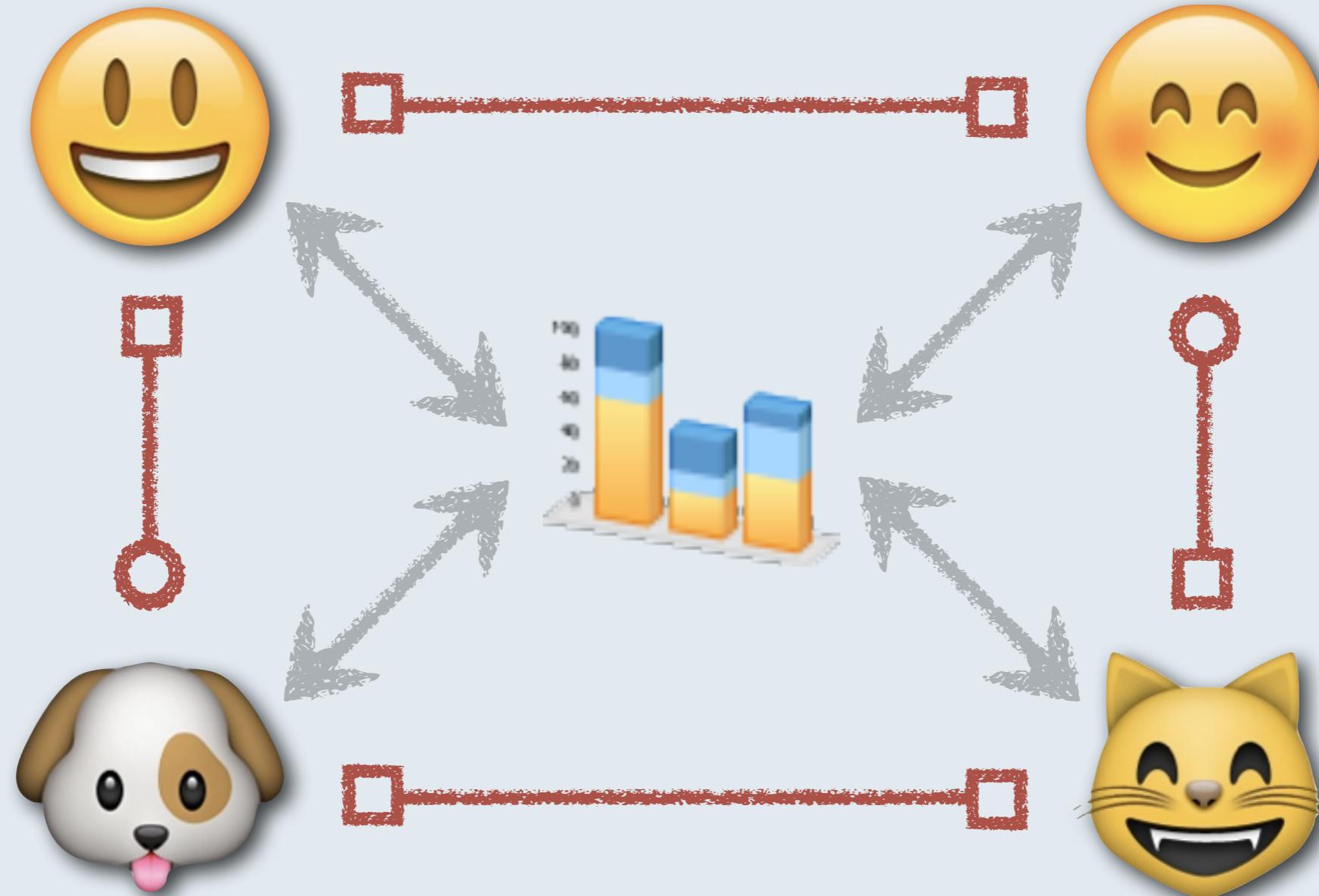


評論、按讚、推薦、  
標記、分享、嵌入...

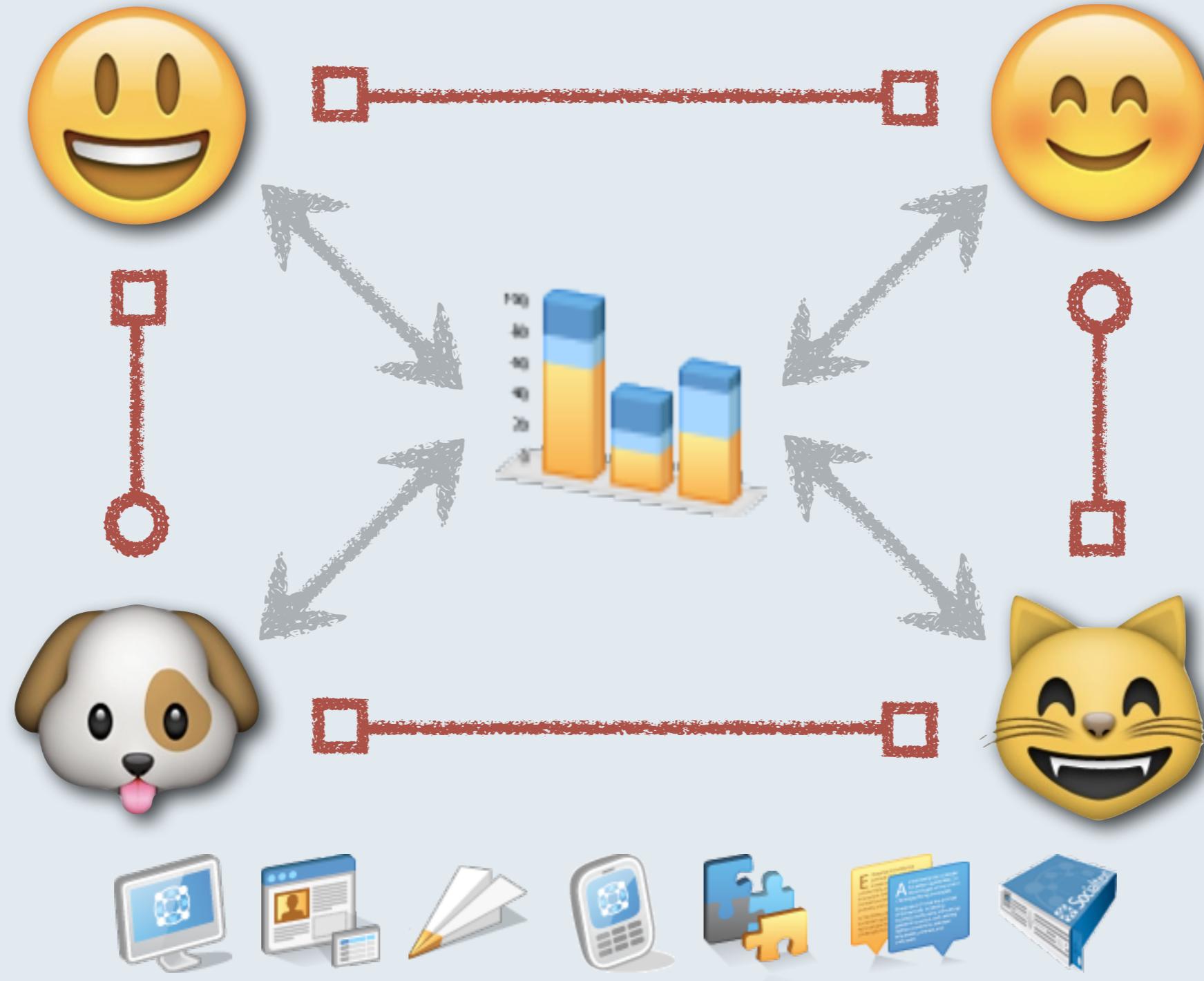
# 社會物件 $\leftrightarrow$ 人際連結

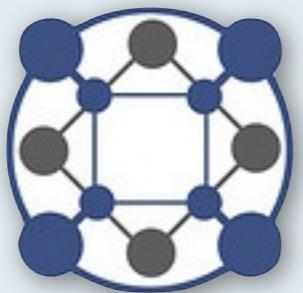


# 社會物件 $\leftrightarrow$ 人際連結

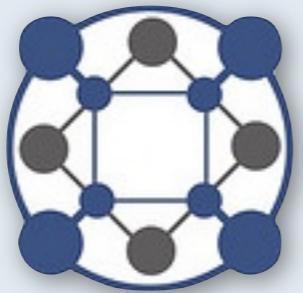


# 社會物件 $\leftrightarrow$ 人際連結





Socialtext Open



Socialtext Open

工欲事其善

义先乘其利

# CPAL 通用公共授權

# CPAL 通用公共授權



**BSD, MIT**

# CPAL 通用公共授權



**BSD, MIT**

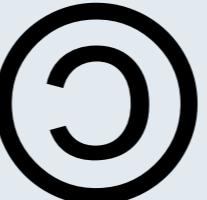


**LGPL, MPL**

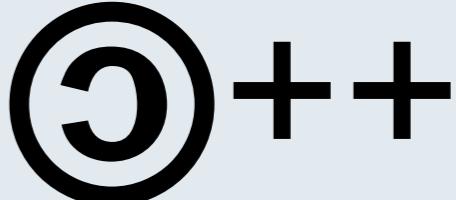
# CPAL 通用公共授權



**BSD, MIT**



**LGPL, MPL**

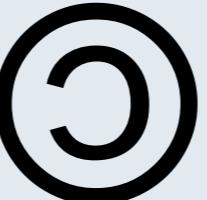


**GPL**

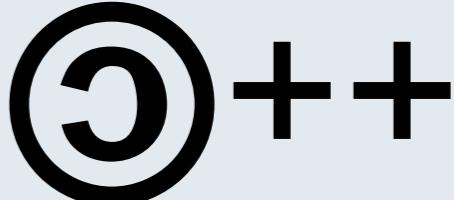
# CPAL 通用公共授權



**BSD, MIT**



**LGPL, MPL**



**GPL**

“ASP 漏洞”

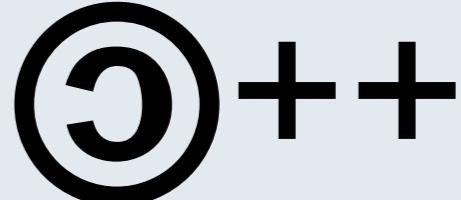
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**BSD, MIT**



**LGPL, MPL**



**GPL**

“ASP 漏洞”

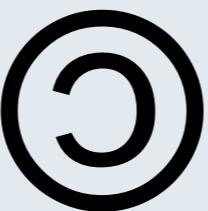


**Affero GPL**

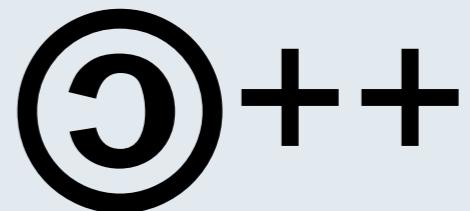
# CPAL 通用公共授權



**BSD, MIT**



**LGPL, MPL**



**GPL**

“ASP 漏洞”



**CPAL**

**Affero GPL**

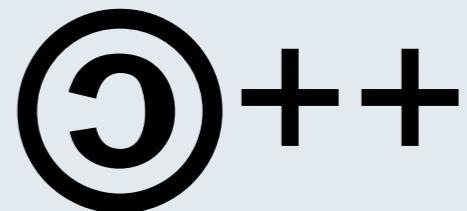
# CPAL 通用公共授權



**BSD, MIT**



**LGPL, MPL**



**GPL**

“ASP 漏洞”



**CPAL**

**Affero GPL**



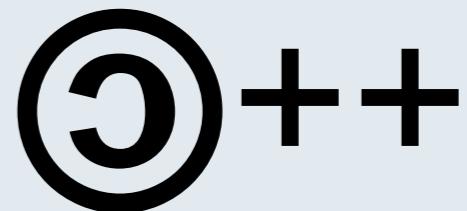
# CPAL 通用公共授權



**BSD, MIT**



**LGPL, MPL**



**GPL**

“ASP 漏洞”



**CPAL**



**Affero GPL**

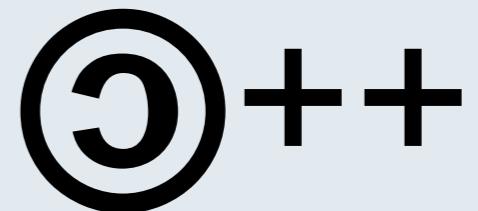
# CPAL 通用公共授權



**BSD, MIT**

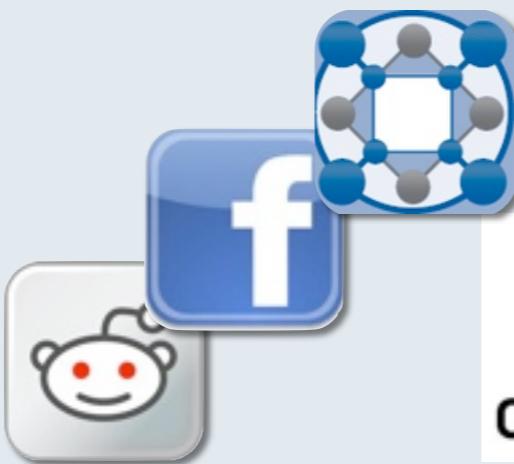


**LGPL, MPL**



**GPL**

“ASP 漏洞”



**CPAL**



**Affero GPL**



# Sheetnode, 2008



**Karim Ratib**



# Sheetnode, 2008

**Views + Fields + CCK**



**Karim Ratib**



# Sheetnode, 2008



**Karim Ratib**

**Views + Fields + CCK**



**SocialCalc.js**



# Sheetnode, 2008



Karim Ratib

**Views + Fields + CCK**



**SocialCalc.js**





# Sheetnode, 2008



Karim Ratib

Views + Fields + CCK



SocialCalc.js





# Sheetnode, 2008

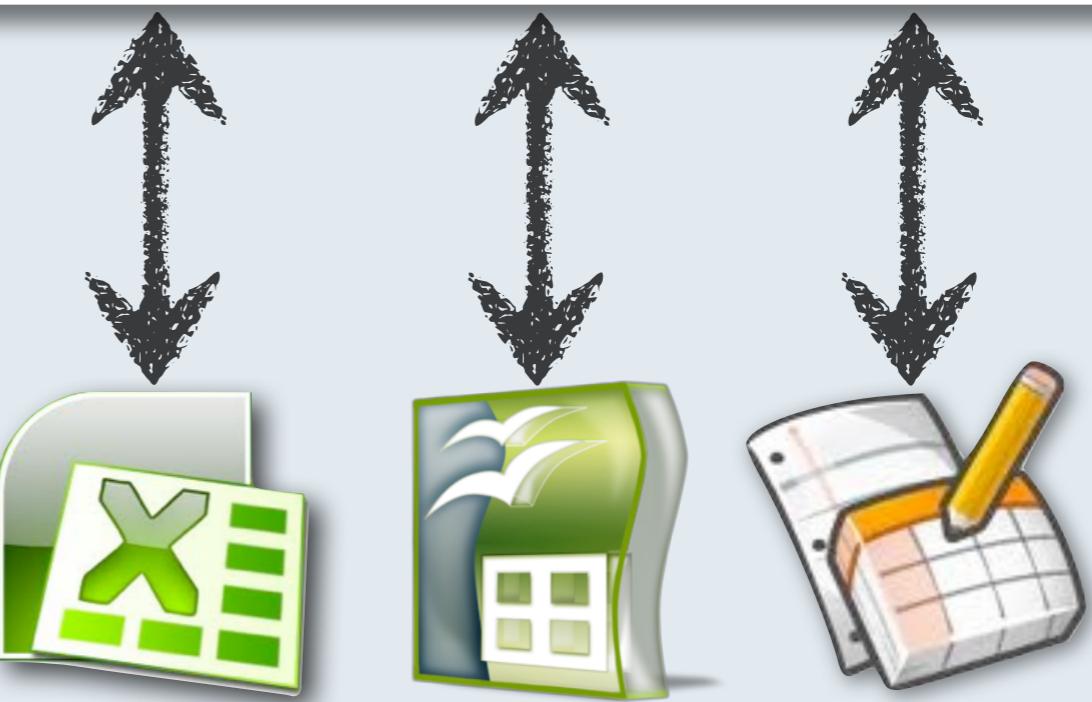


Karim Ratib

Views + Fields + CCK



SocialCalc.js





# Sheetnode, 2008





# Sheetnode, 2008



I was looking for an **open source** equivalent to Google Docs that would allow **tighter integration** with a **company's data**:



# Sheetnode, 2008



I was looking for an **open source** equivalent to Google Docs that would allow **tighter integration** with a **company's data**:

**“Real-time reports,  
created out of Drupal data.”**

**SheetNode.org**

# SheetNode.org

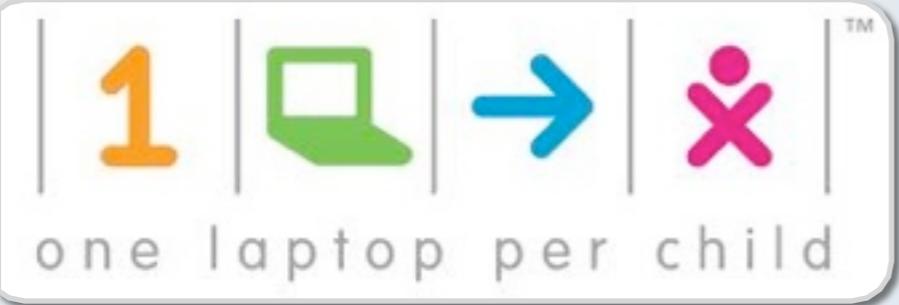
	A	B	C	D
1	<b>TITLE</b>	<b>NID</b>	<b>DATE</b>	<b>LOG(nid)</b>
2	<code> \${title}</code>	<code> \${nid}</code>	--	<code> \${LOG(@nid@)}</code>
3		<b>SUM</b> <code> \${SUM(@nid@)}</code>		

# SheetNode.org

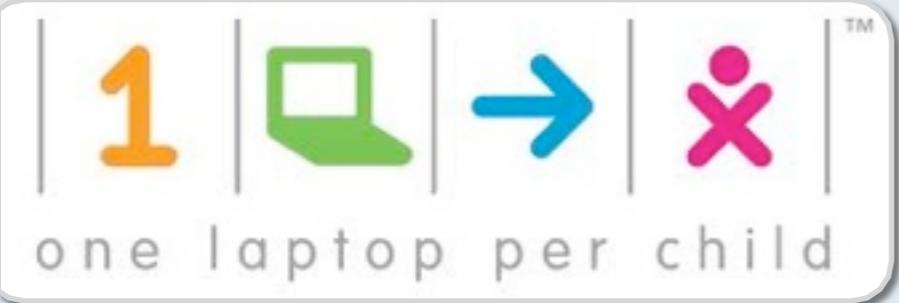
	A	B	C	D
1	<b>TITLE</b>	<b>NID</b>	<b>DATE</b>	<b>LOG(nid)</b>
2	<code> \${title}</code>	<code> \${nid}</code>	--	<code> \${LOG(@nid@)}</code>
3	<b>SUM</b>	<code> \${SUM(@nid@)}</code>		

Views

	A	B	C	D
1	<b>TITLE</b>	<b>NID</b>	<b>DATE</b>	<b>LOG(nid)</b>
2	EtherCalc	429	2012-07-05	6.061456918928
3	Sheetview template	428	2012-05-07	6.0591231955818
4	Sheetview	419	2012-05-01	6.0378709199221
5	CCK node demo	416	2012-04-21	6.0306852602613
6	Cross-referencing capability of Sheetnode	415	2012-04-21	6.0282785202307
7	Basic Number Formats	413	2012-03-28	6.023447592961
8	Conditional Number Formats	414	2012-03-28	6.0258659738253
9	Multiple worksheet demo	404	2012-02-25	6.0014148779612
10	<b>SUM</b>	3338		



# OLPC, 2008

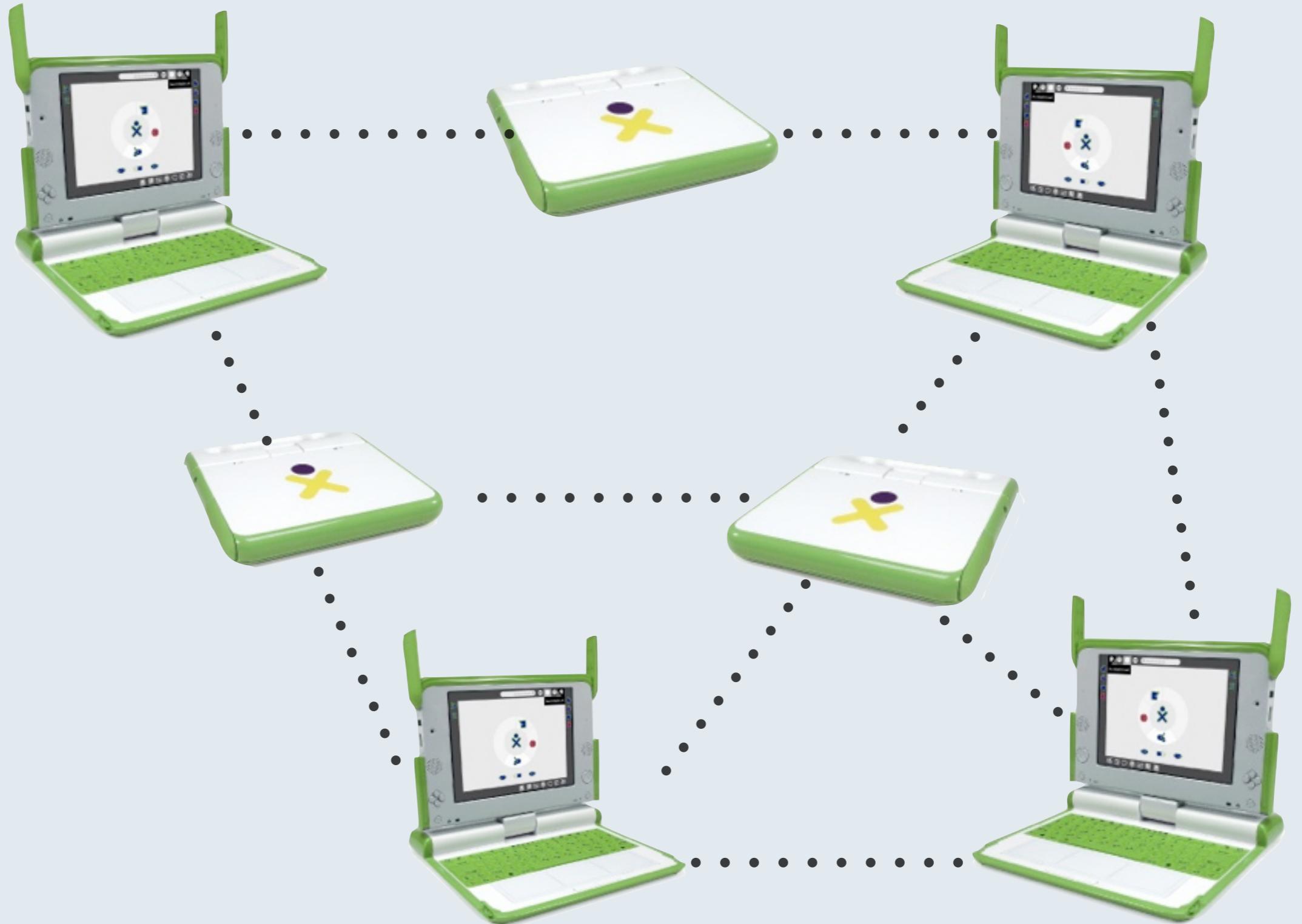


# OLPC, 2008

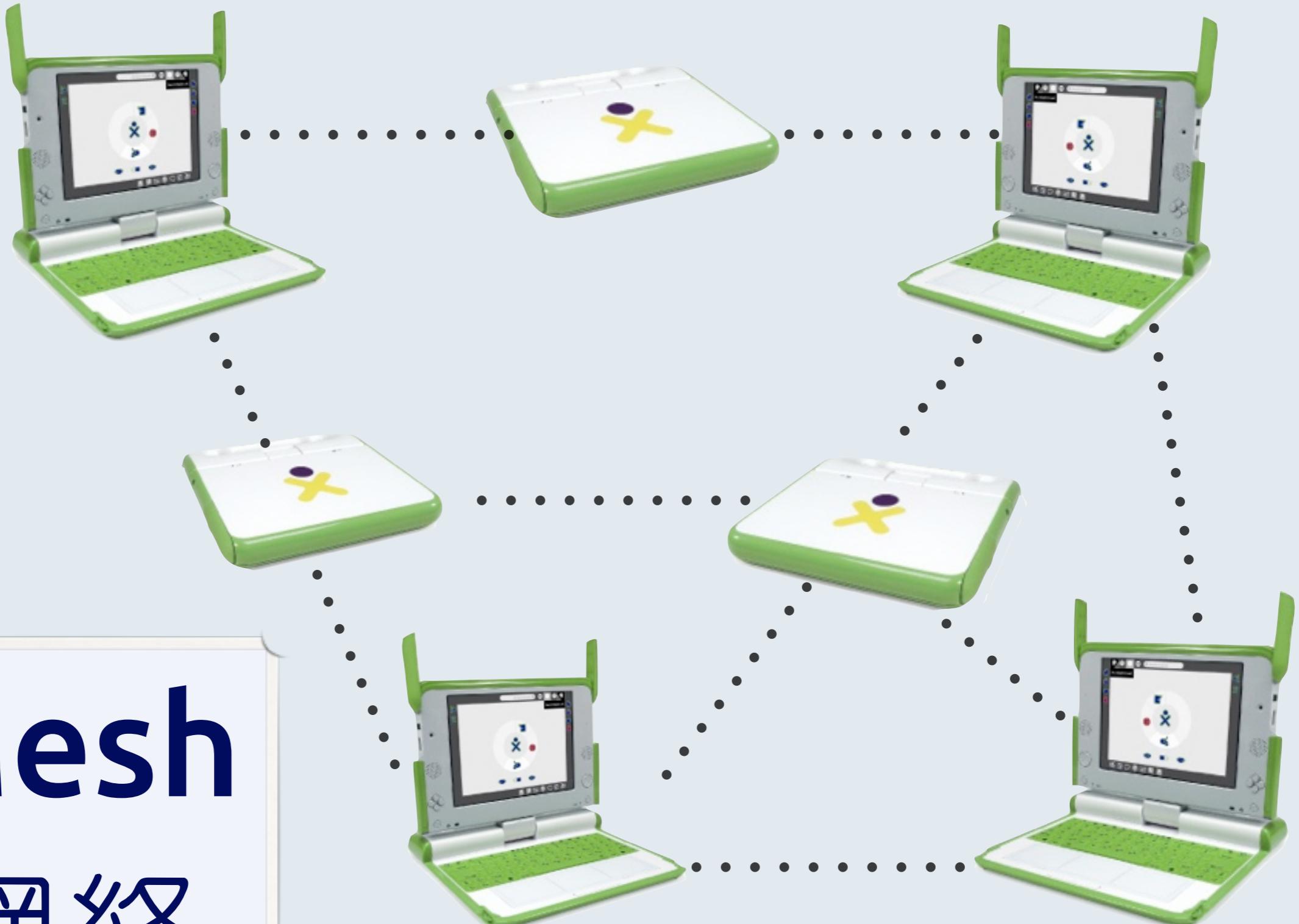


Luke Closs & Dan





# Mesh 網 絡







**Manusheel  
Gupta**



**Dijit Singh**



**Manusheel  
Gupta**



**Dijit Singh**



## SocialCalcActivity.py

Gecko/XPCOM

SocialCalc.js

XoCom.js

XoCom.py



**Manusheel  
Gupta**



**Dijit Singh**



**set A1 value n 42**

## **SocialCalcActivity.py**

Gecko/XPCOM

SocialCalc.js

XoCom.js

XoCom.py



**Manusheel  
Gupta**



**Dijit Singh**



**set A1 value n 42**

## **SocialCalcActivity.py**

Gecko/XPCOM

SocialCalc.js

XoCom.js

XoCom.py

**D-Bus + Telepathy**



**Manusheel  
Gupta**



**Dijit Singh**



**set A1 value n 42**

## SocialCalcActivity.py

Gecko/XPCOM

SocialCalc.js

XoCom.js

XoCom.py

+ Telepathy

**OLPC Mesh**

網絡廣播



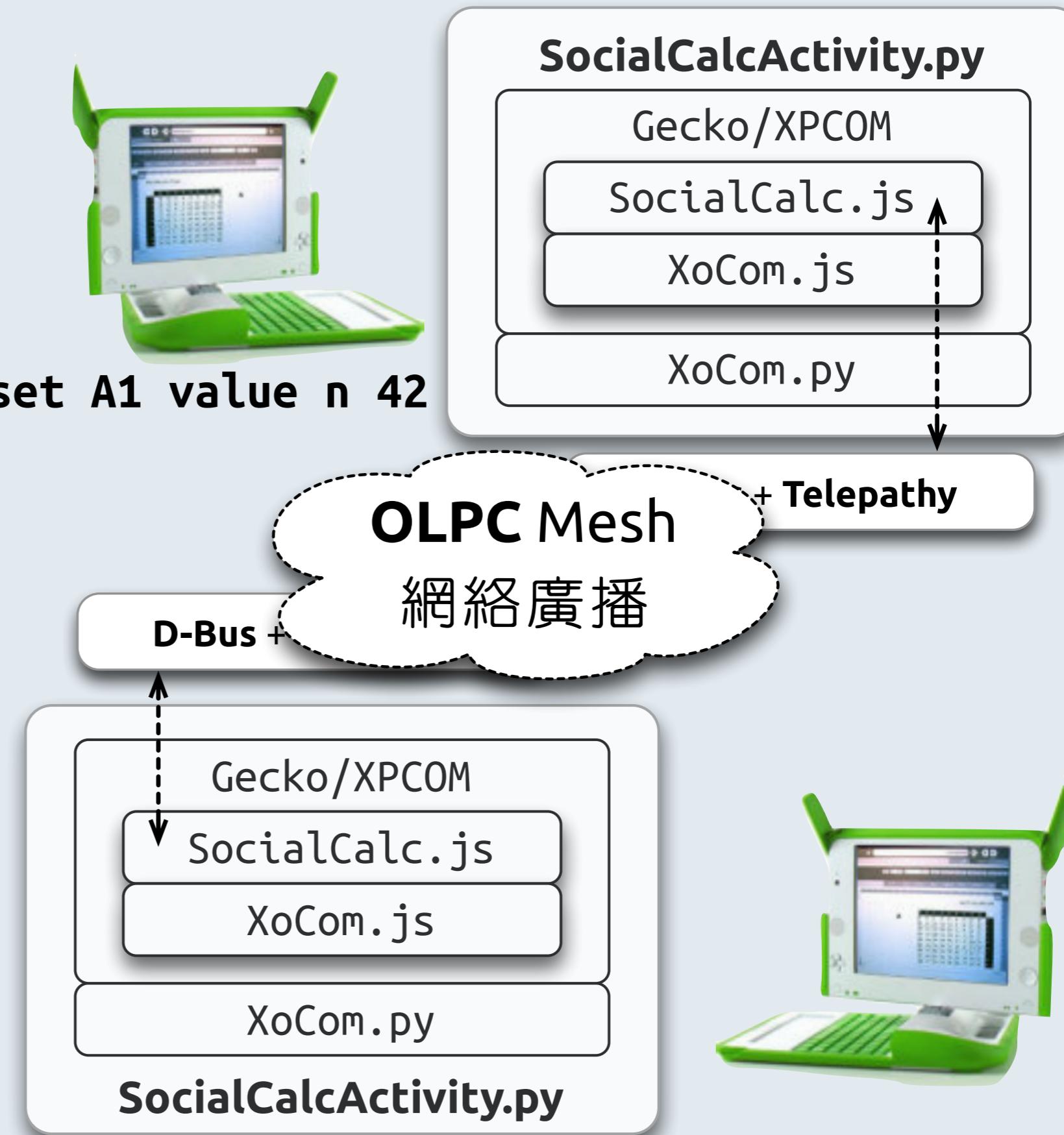


**Manusheel  
Gupta**



**Dijit Singh**

**set A1 value n 42**





**Manusheel  
Gupta**



**Dijit Singh**

**set A1 value n 42**



## SocialCalcActivity.py

Gecko/XPCOM

SocialCalc.js

XoCom.js

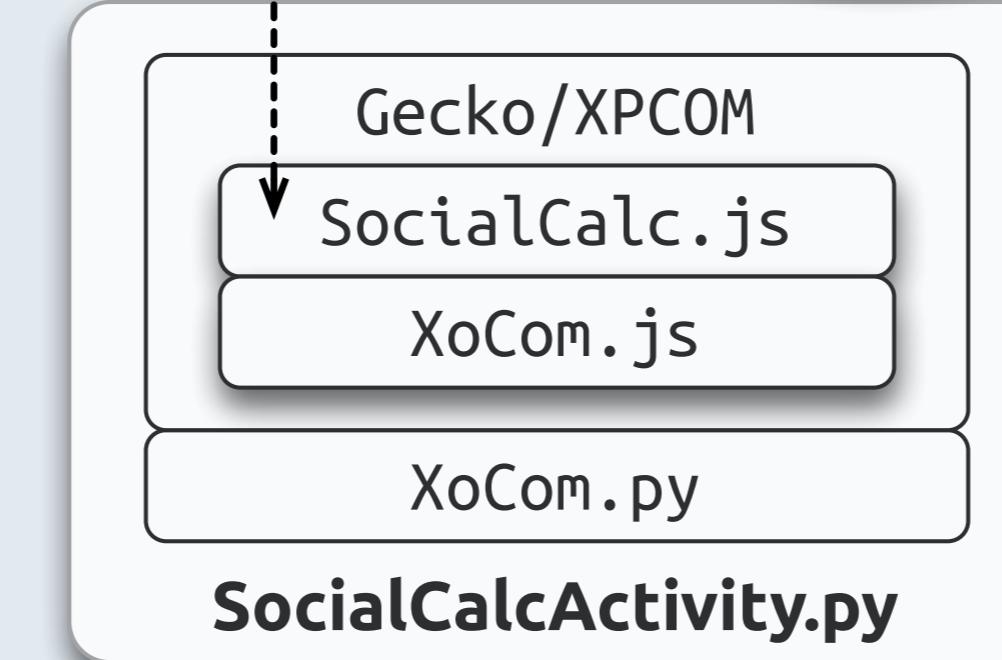
XoCom.py

+ Telepathy

**OLPC Mesh**

網絡廣播

D-Bus +



**set A1 value n 42**



很讚，但是...



很讚，但是...

- ▶ 漏接訊息無法復原。



很讚，但是...

- ▶ 漏接訊息無法復原。
- ▶ 編輯同一格時會衝突。

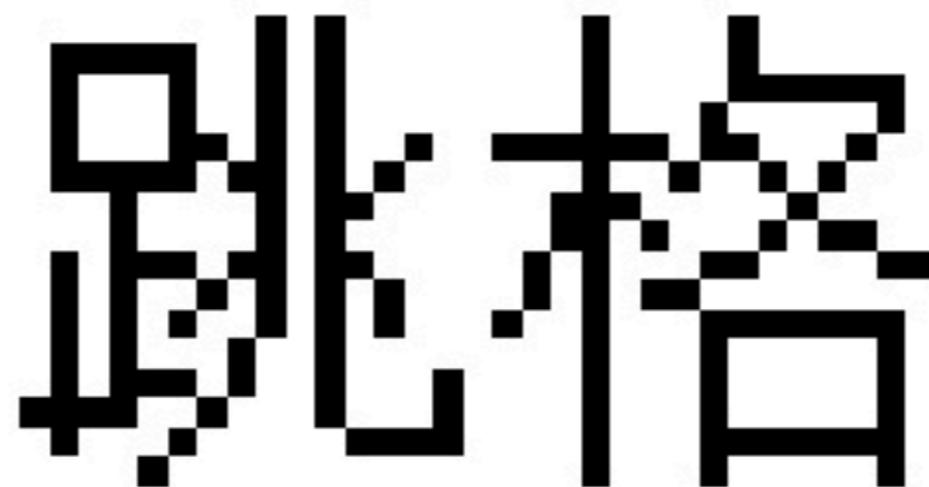


# 很讚，但是...

- ▶ 漏接訊息無法復原。
- ▶ 編輯同一格時會衝突。
- ▶ 只能在 OLPC 上使用！



# YAPC::Tiny, 2009



Multiplayer  
SocialCalc

二零九 唐鳳  
中英雙字有字版

**EV: 事件驅動**

# Tatsumaki

EV: 事件驅動



@miyagawa

# Tatsumaki



@miyagawa

# EV: 事件驅動

## Web::Hippie



@clkao

# Tatsumaki



@miyagawa

# EV: 事件驅動

## Web::Hippie



@clkao

## Feersum



@stash

# WebSocket 同步編輯

**multiserver.pl**

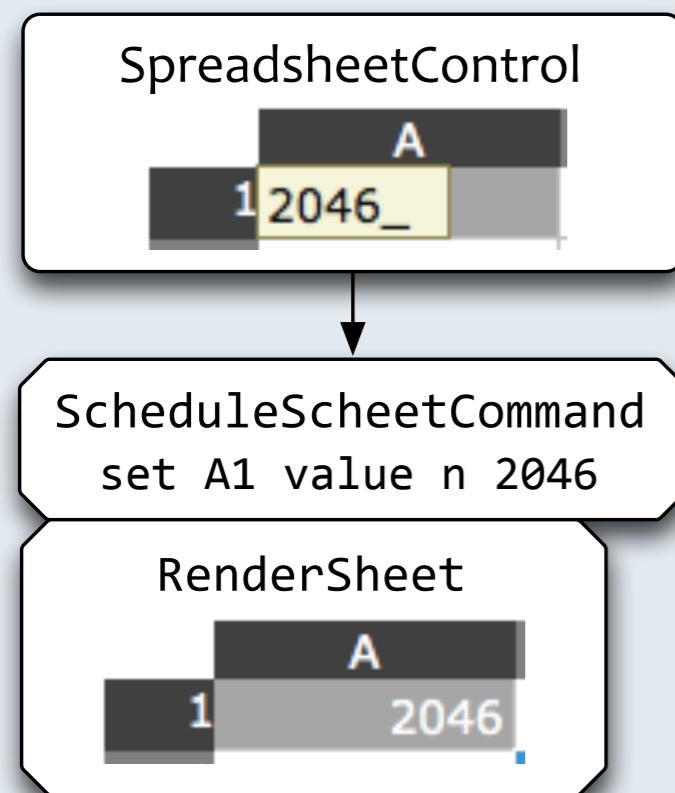
Web::Hippie

Plack

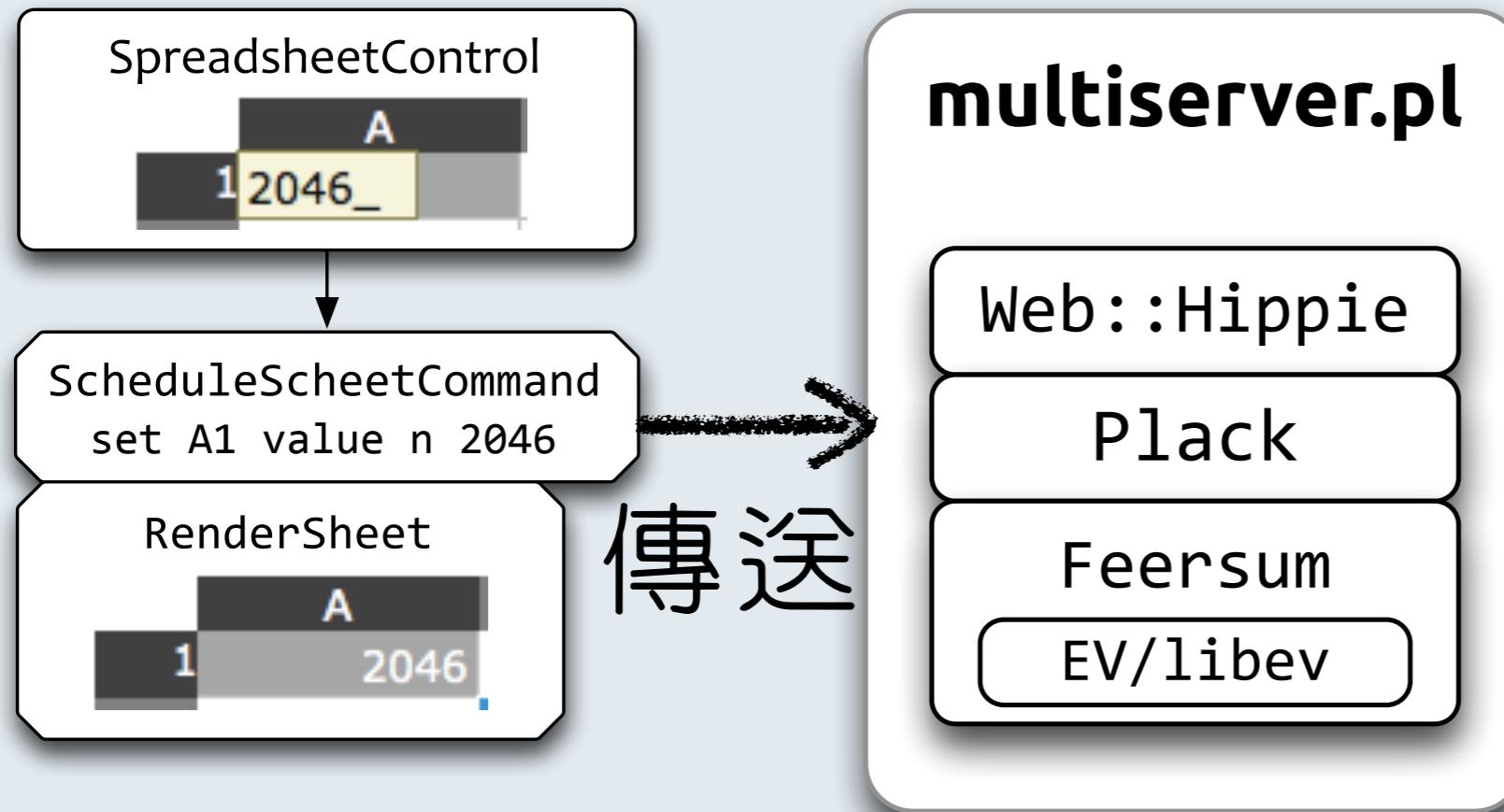
Feersum

EV/libev

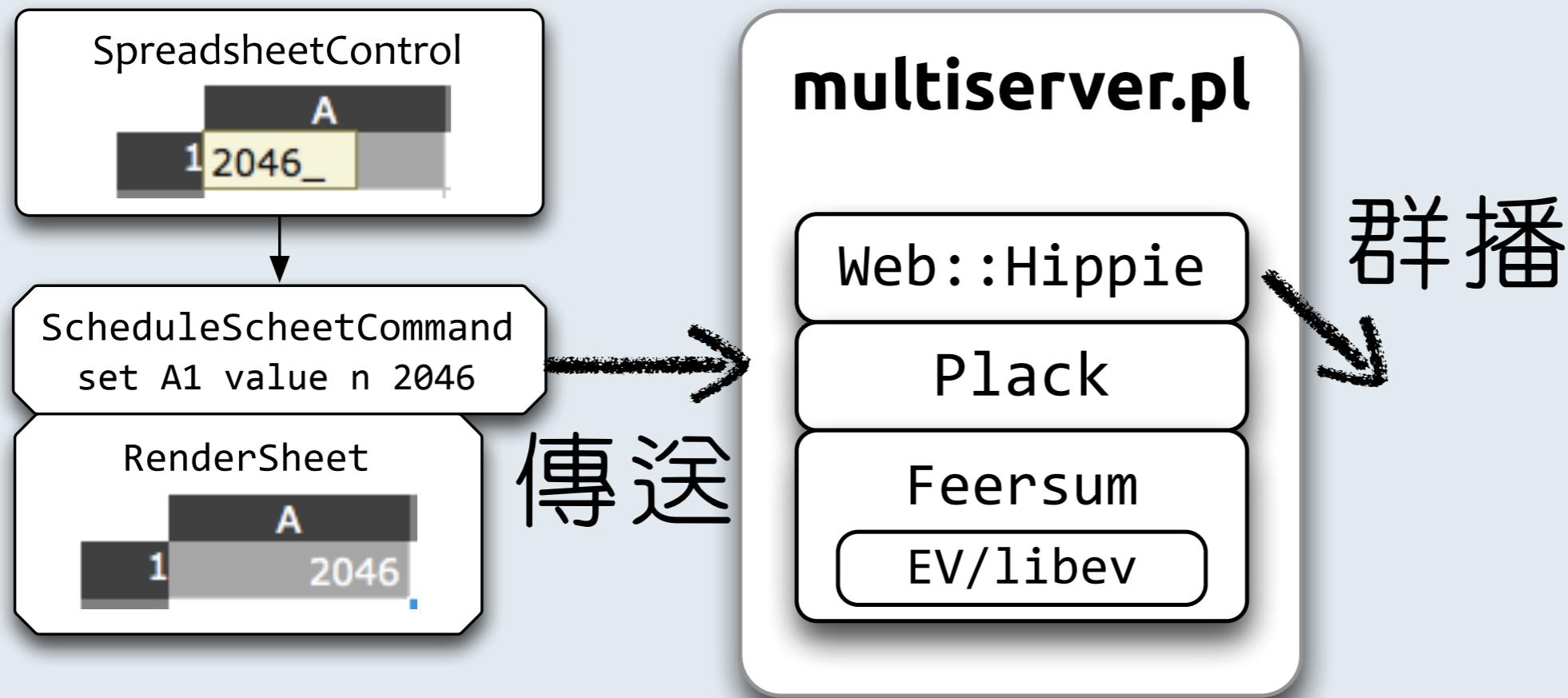
# WebSocket 同步編輯



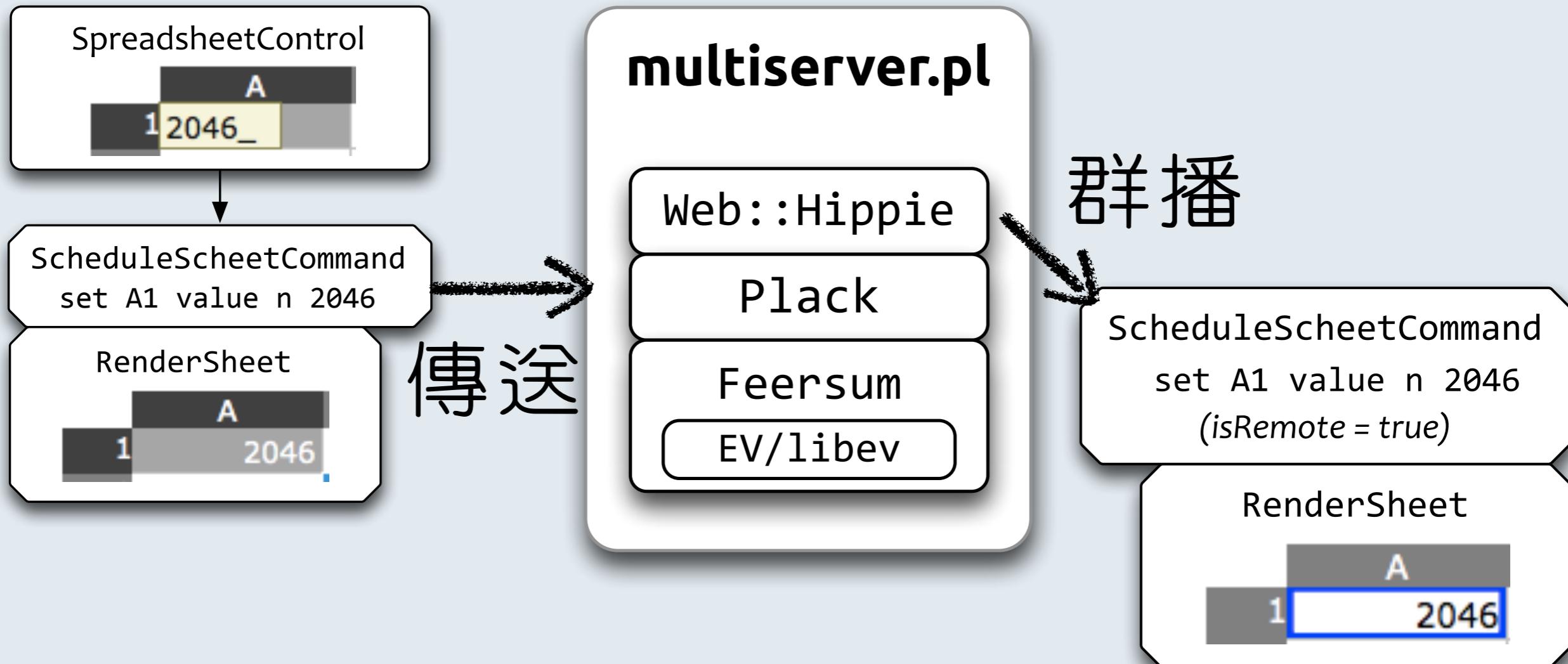
# WebSocket 同步編輯



# WebSocket 同步編輯



# WebSocket 同步編輯



# 新增功能

# 新增功能

✓ 斷線重連可以復原。

# 新增功能

- ✓ 斷線重連可以復原。
- ✓ 顯示別人的游標位置。

# 新增功能

- ✓ 斷線重連可以復原。
- ✓ 顯示別人的游標位置。
- ✓ 可以在各平台上運行！

# 新增功能

- ✓ 斷線重連可以復原。
- ✓ 顯示別人的游標位置。
- ✓ 可以在各平台上運行！



更讚了，但是...



更讚了，但是...

► 要相信誰的目前狀態？



更讚了，但是...

- ▶ 要相信誰的目前狀態？
- ▶ 所有人離線：資料消失？



# 更讚了，但是...

- ▶ 要相信誰的目前狀態？
- ▶ 所有人離線：資料消失？
- ▶ 重新連接：回播所有指令？

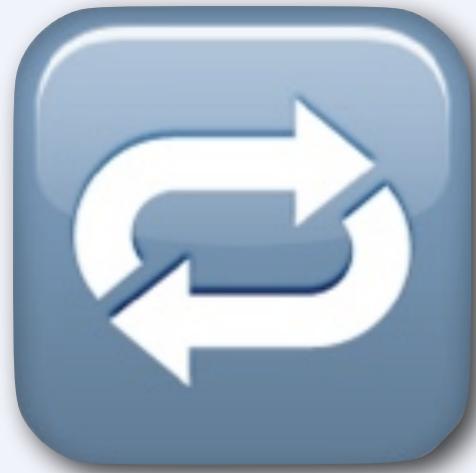


# 更讚了，但是...

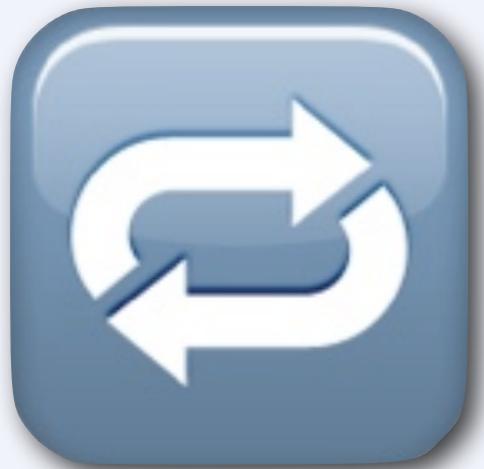
- ▶ 要相信誰的目前狀態？
- ▶ 所有人離線：資料消失？
- ▶ 重新連接：回播所有指令？







打掉重練



打掉重練

原地重建？

# YAPC::NA, 2006



# YAPC::NA, 2006

“I think, but I cannot prove, that by the next year **JavaScript 2.0** will bootstrap itself, complete self hosting, **compile back** to JavaScript, and **replace Ruby** as the Next Big Thing in all environments.”



# YAPC::NA, 2006



# **YAPC::NA, 2006**

**“JavaScript will become the common backend for all dynamic languages, and so you can write Perl to run in the browser, on the server, and inside databases, all with the same set of development tools.”**



# YAPC::NA, 2006



# YAPC::NA, 2006

“Because, as we all know,  
**worse is better**, so the **worst**  
scripting language is doomed  
to become the *best*.”



# YAPC::NA, 2006

“Because, as we all know,  
**worse is better**, so the **worst**  
scripting language is doomed  
to become the *best*.”

劣即是秀



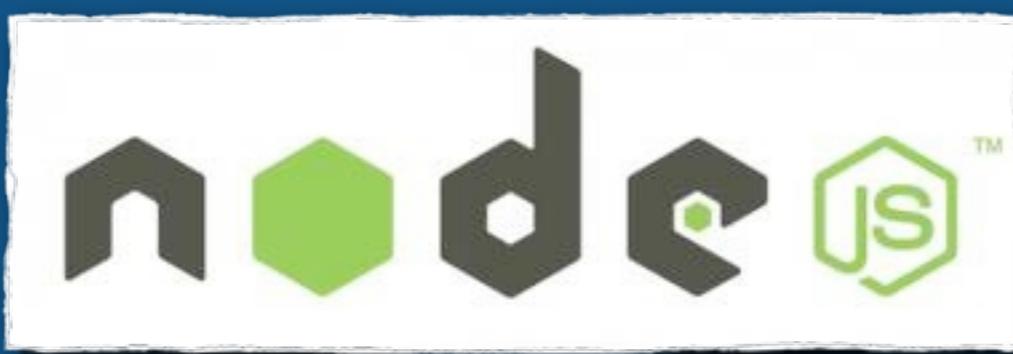
少

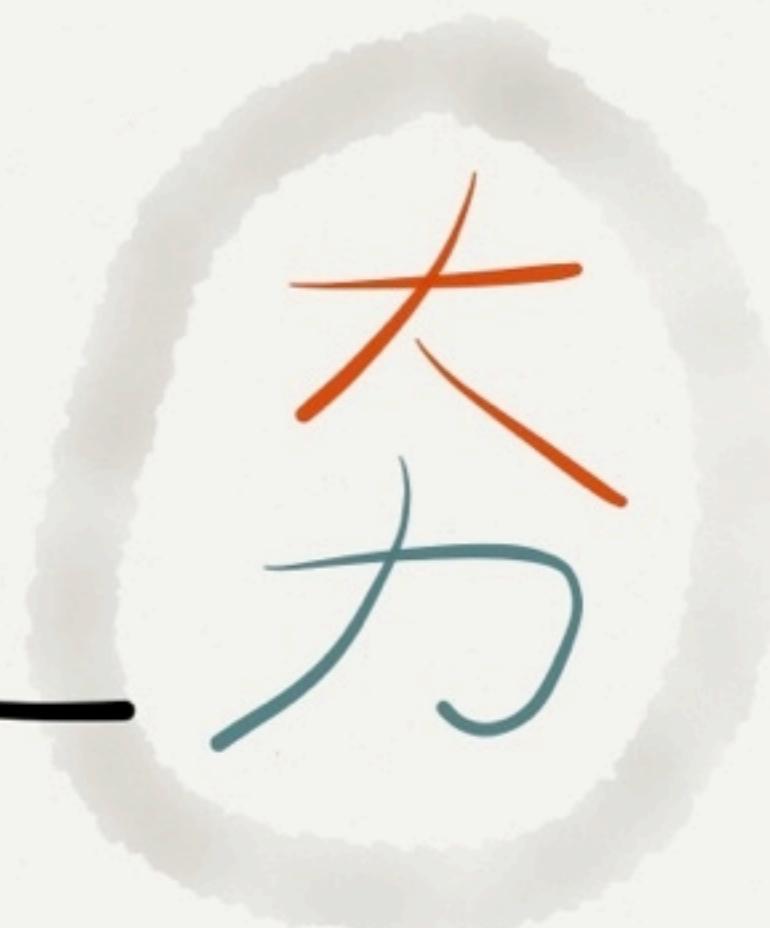
EP是

大



EP 12

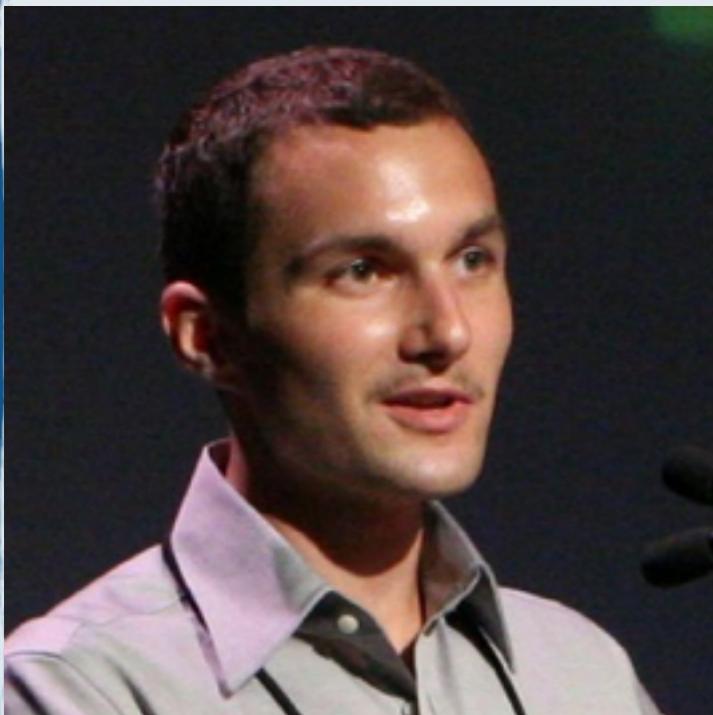




# JavaScript: 缺點減少

# CoffeeScript: 標點減半

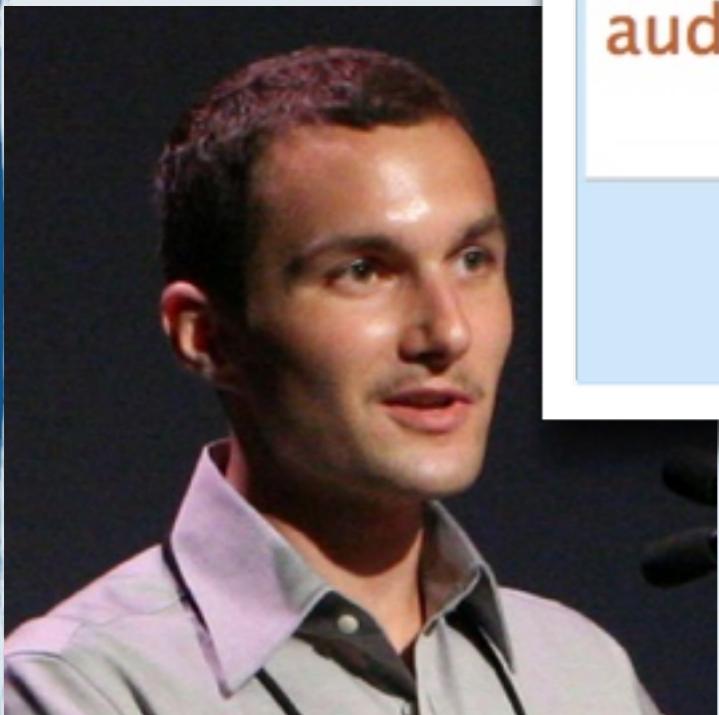
**cs = (js) -> js/2**



**Jeremy  
Ashkenas**

# CoffeeScript: 標點減半

**cs = (js) -> js/2**



audreyt 本周程式碼產量: 負一萬七千行。 😊

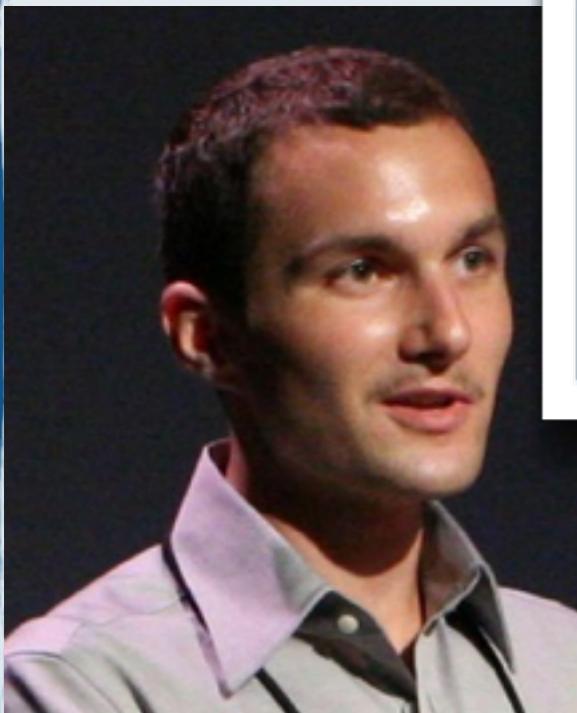
2011-9-8 - 16:51

亦未  
可知

**Jeremy  
Ashkenas**

# CoffeeScript: 標點減半

**cs = (js) -> js/2**

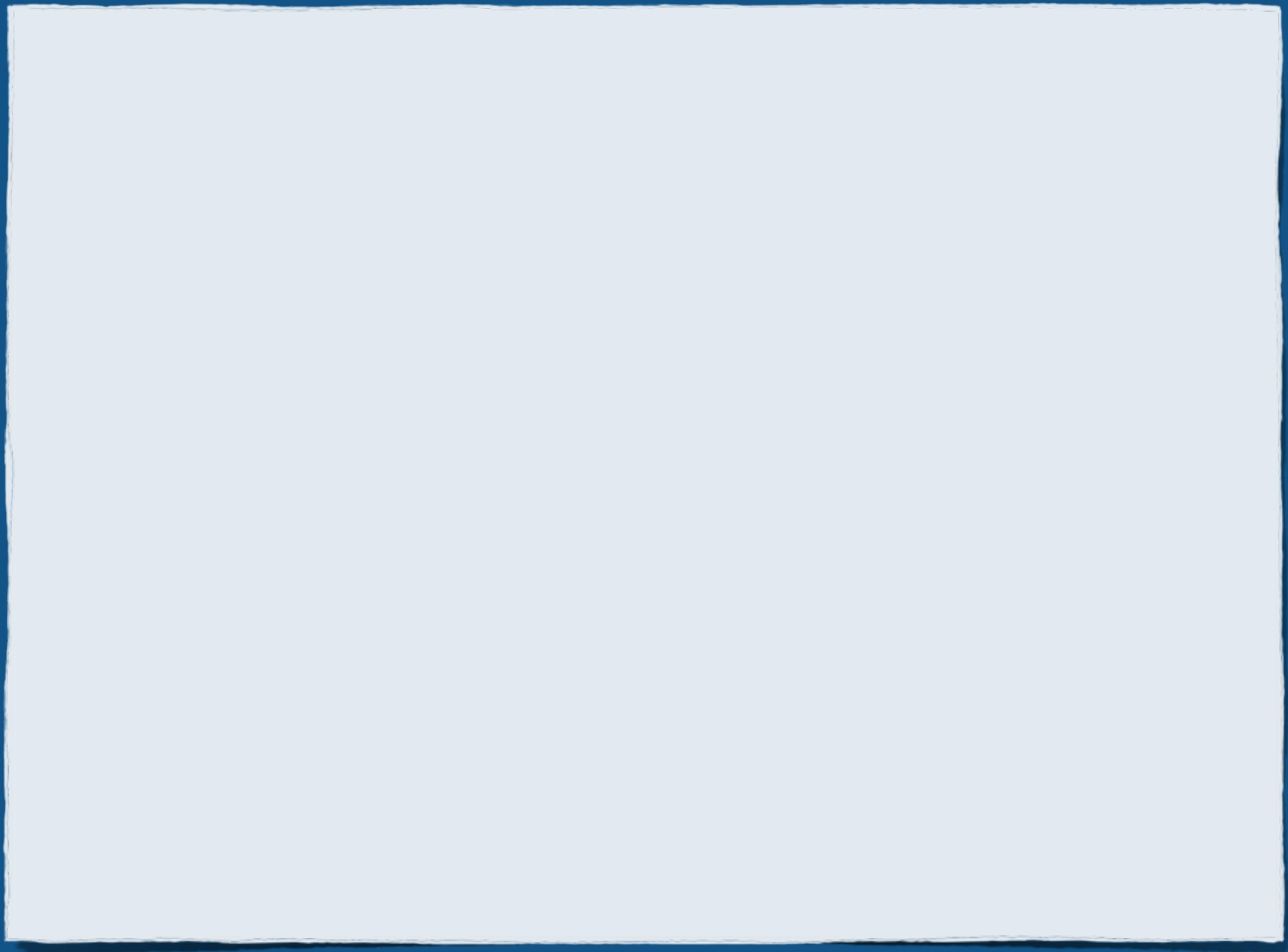


**audreyt** 本周程式碼產量: 負一萬七千行。 😊

2011-9-8 - 16:51

“原 JavaScript 行數: 22k。  
重寫過的 CoffeeScript 行數: 5k。  
{async, jsdom, zappa, optimist etc}++”

**Jeremy  
Ashkenas**





```
{x,y} = @offset
```



**{x,y} = @offset**

**var \_ref = this.offset;**



**JavaScript**



# {x,y} = @offset

```
var _ref = this.offset;  
var x = _ref.x;
```



JavaScript



# {x,y} = @offset

```
var _ref = this.offset;  
var x = _ref.x;  
var y = _ref.y;
```



JavaScript



# {x,y} = @offset

```
var _ref = this.offset;  
var x = _ref.x;  
var y = _ref.y;
```



JavaScript

[js2coffee.org](http://js2coffee.org)

# COSCUP, 2011



# COSCUP, 2011



# COSCUP, 2011



hack hack hack ...

# COSCUP, 2011

The screenshot shows a web-based EtherCalc spreadsheet. The interface includes a toolbar with standard file operations like Open, Save, and Print, and a menu bar with Edit, Format, Sort, Audit, Comment, and Names. A 'Fork me on GitHub' badge is visible in the top right corner. The spreadsheet contains a single row with columns labeled A through E. Cell A1 contains the text '1 Next Steps'. Cell A2 contains the number '2' followed by a bulleted list: '• Post meeting words to the wiki'. Cell A3 contains the text '3 Email to the Group'. Cell A4 contains the text '4 EtherCalc worked out great for our brainstorming session.' Below this cell, a tip is provided: 'Tip: You can create a pad with any web address you like -- just type it after the "/" in the domain name.'

**EtherCalc**

EtherCalc is a web spreadsheet.

Your data is saved on the web, and people can edit the same document at the same time. Everybody's changes are instantly reflected on all screens.

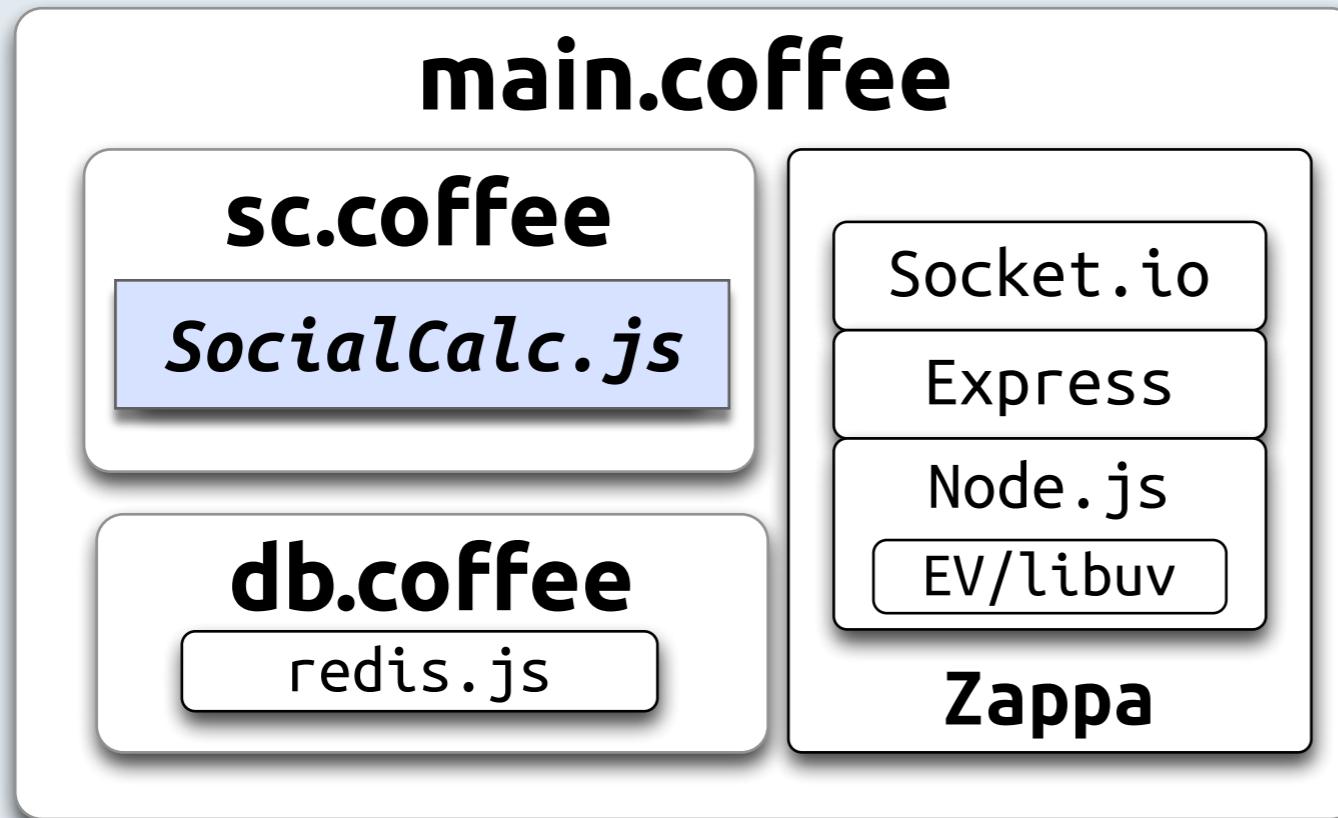
Work together on inventories, survey forms, list management, brainstorming sessions and more!

Create Spreadsheet  
No sign-up, start writing instantly

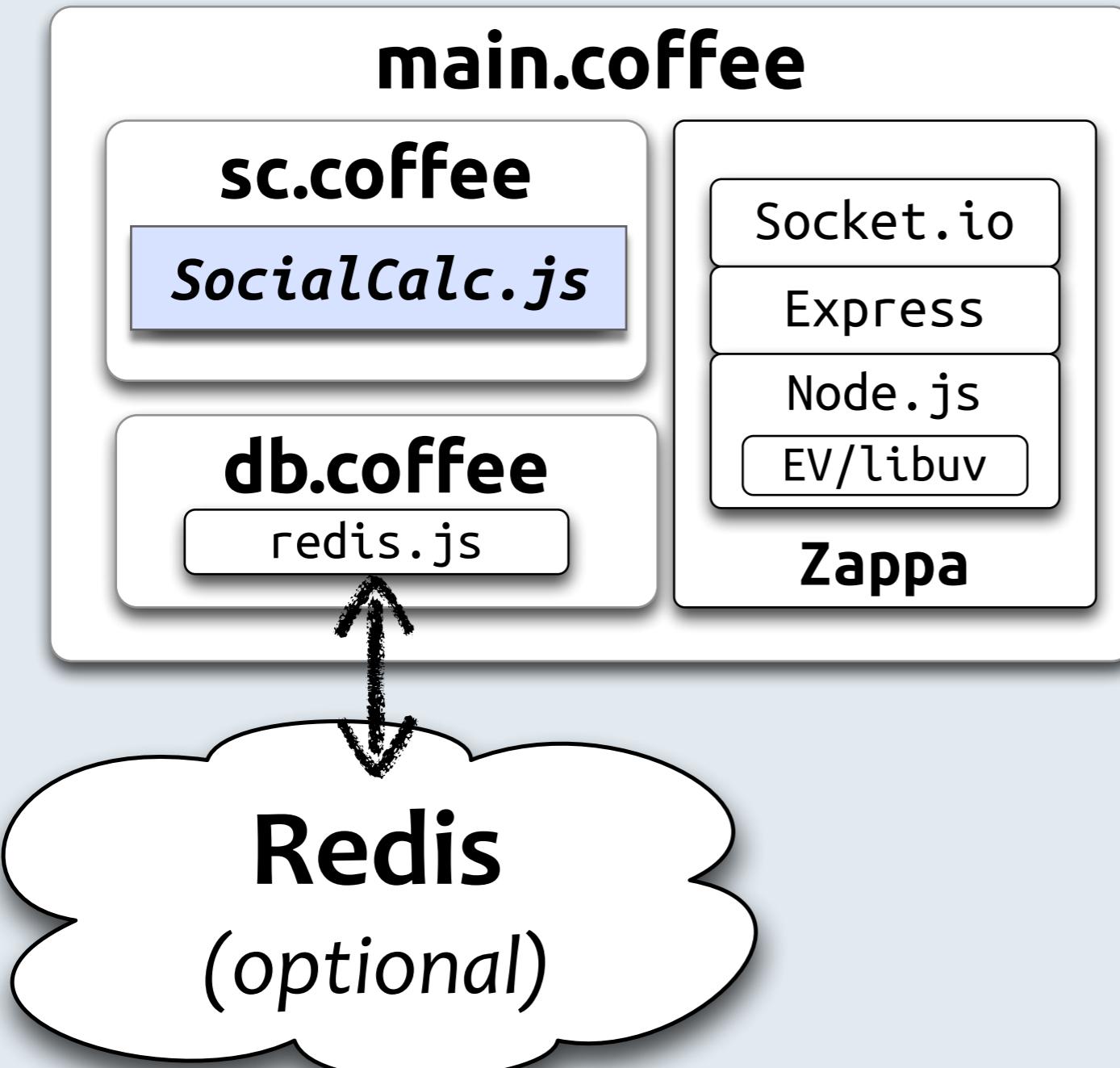
hack hack hack ...

# EtherCalc 系統架構

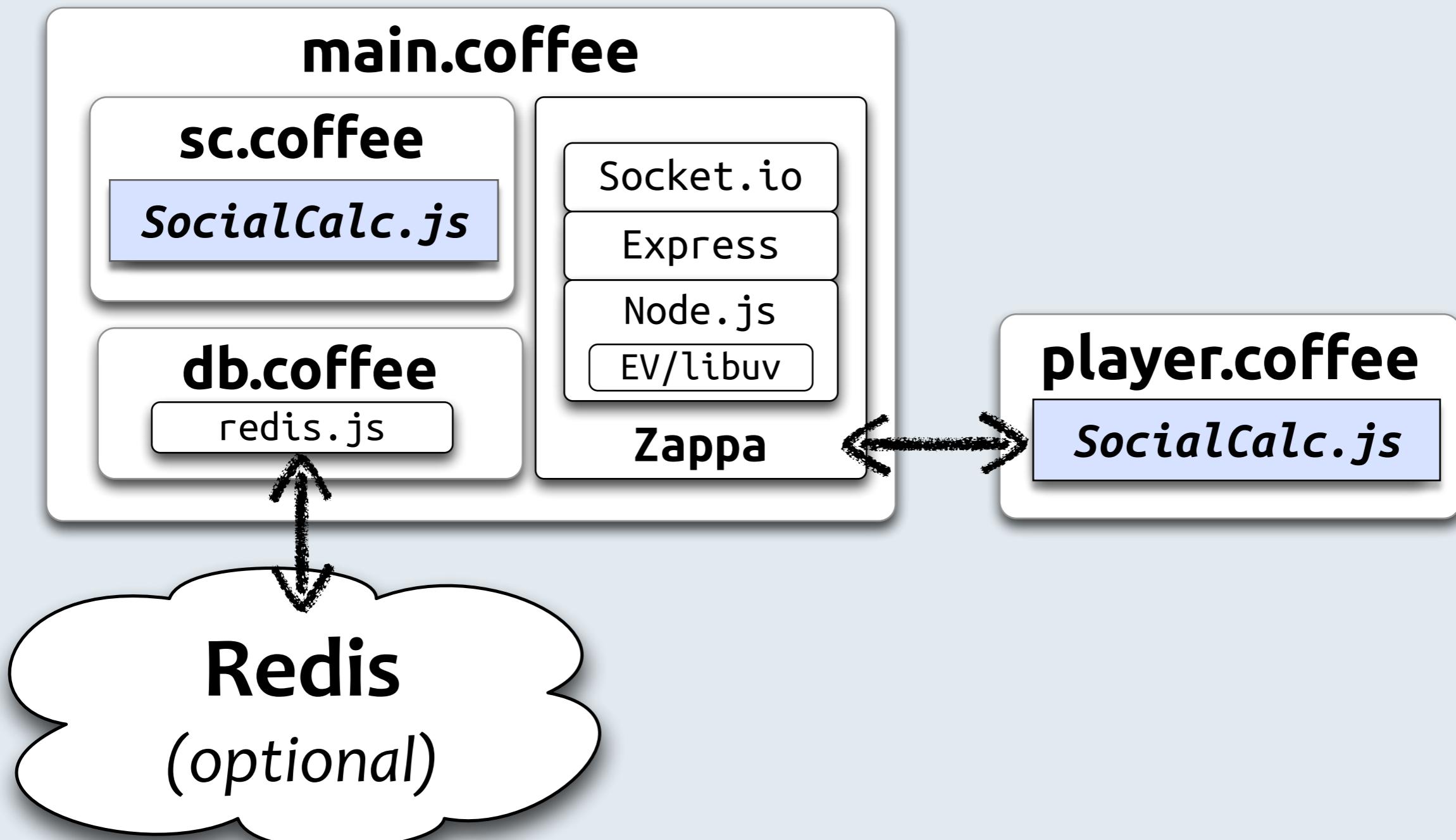
# EtherCalc 系統架構



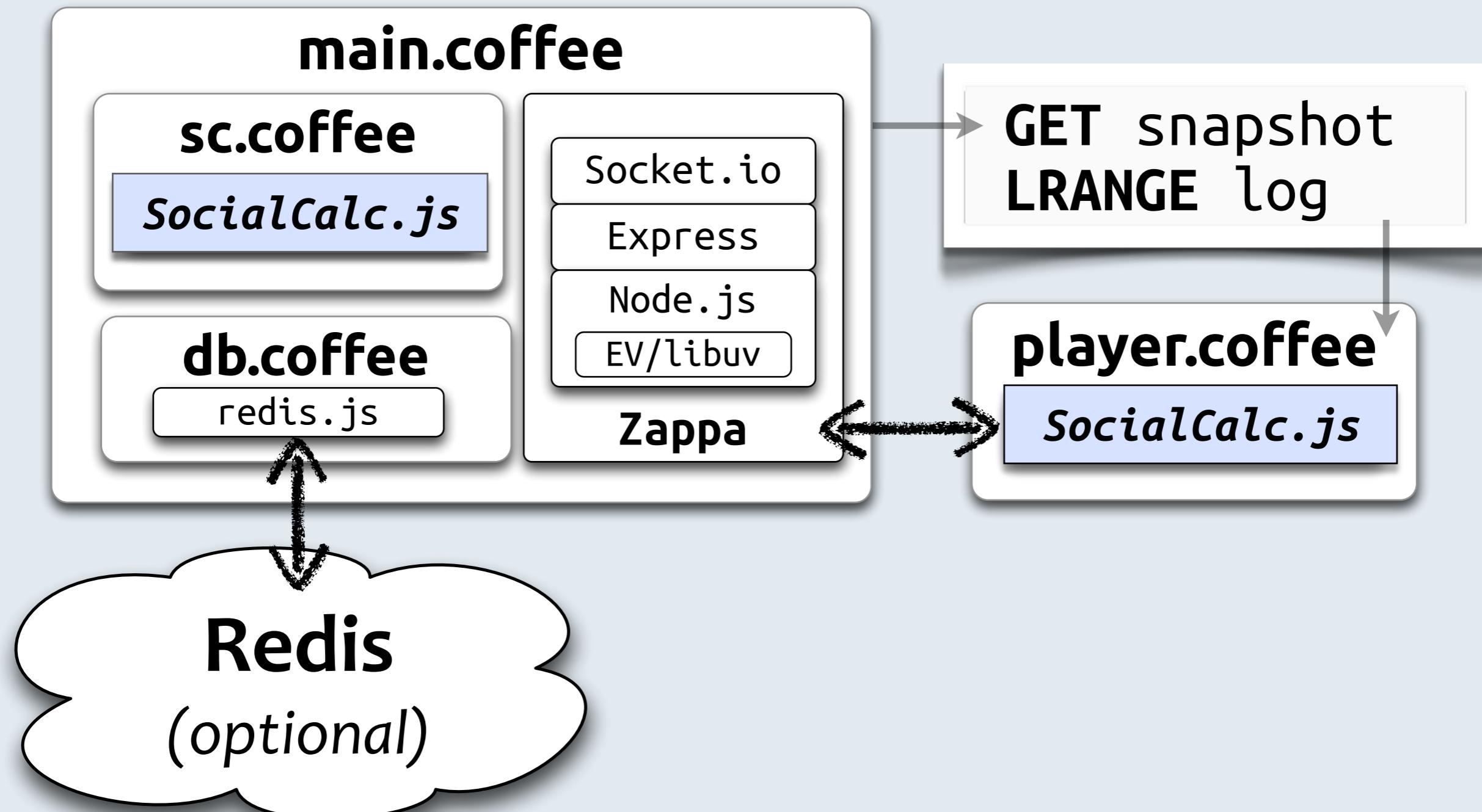
# EtherCalc 系統架構



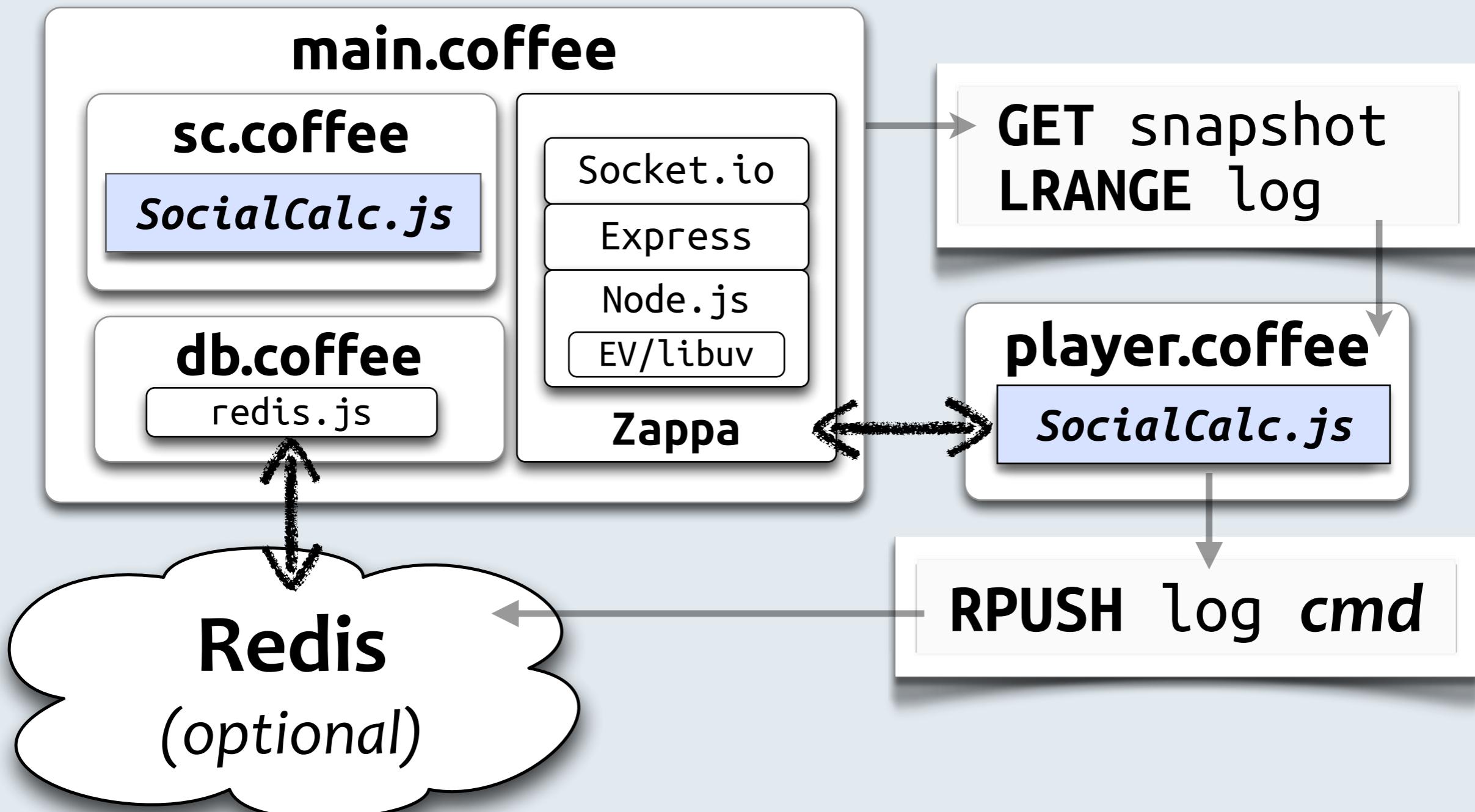
# EtherCalc 系統架構



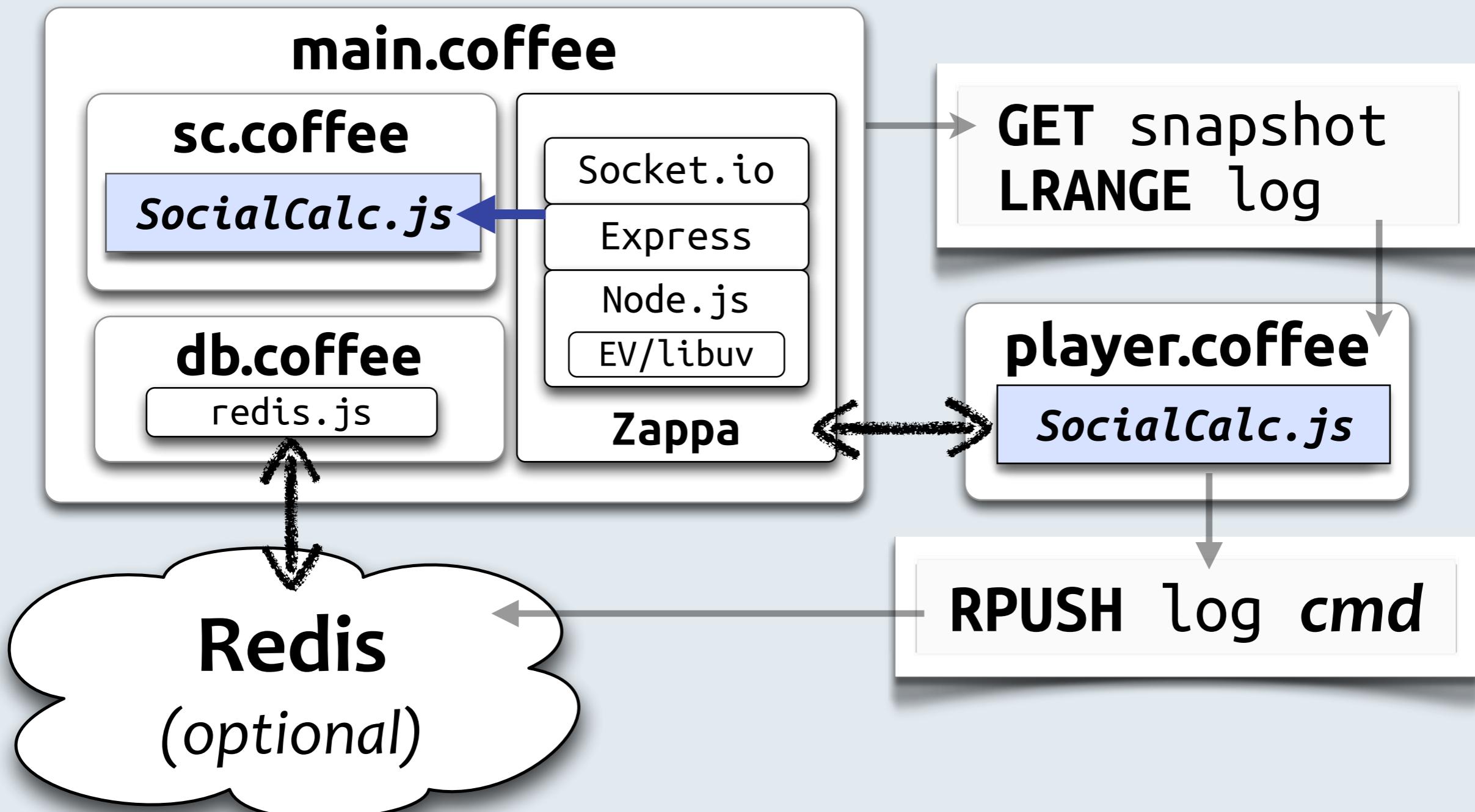
# EtherCalc 系統架構



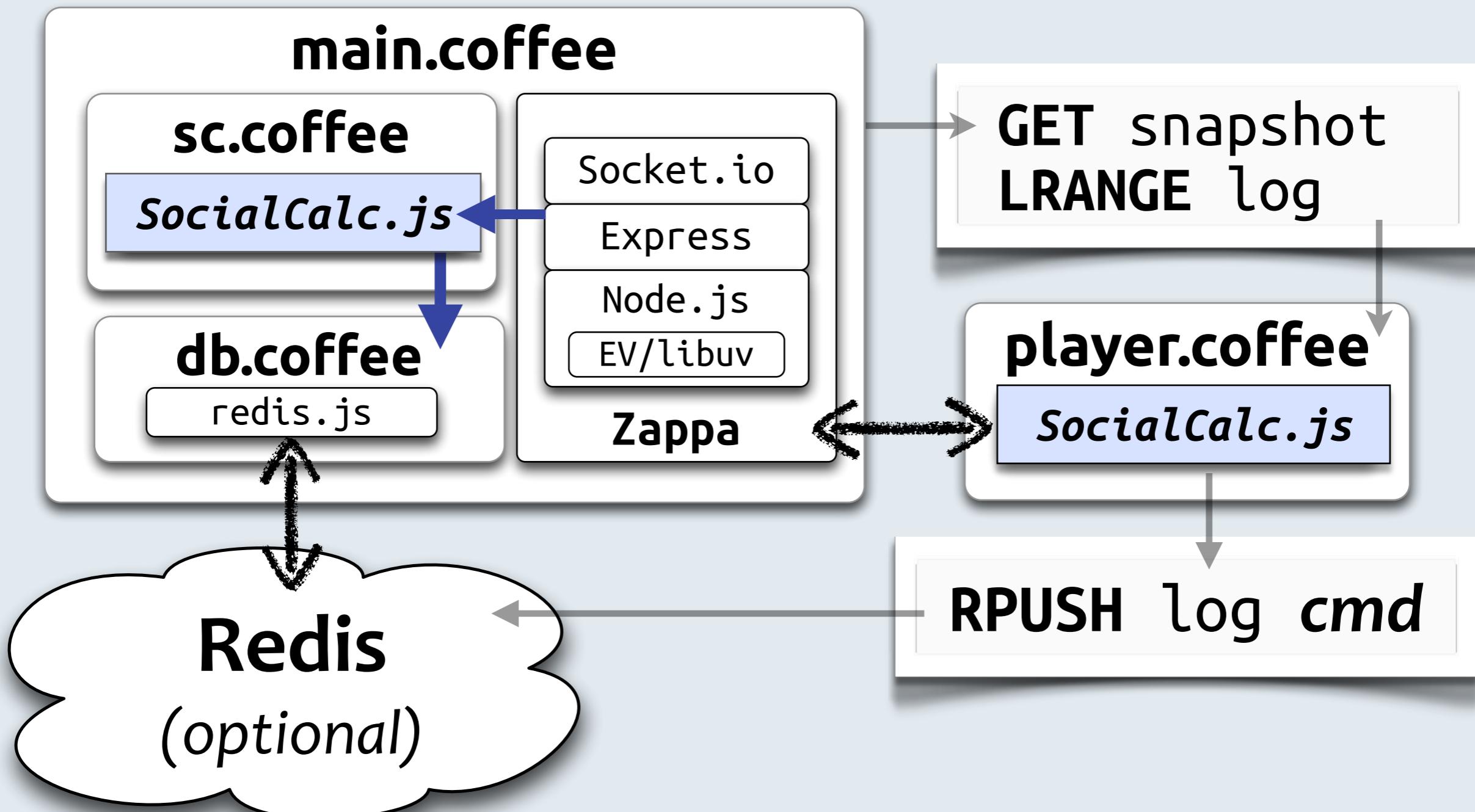
# EtherCalc 系統架構



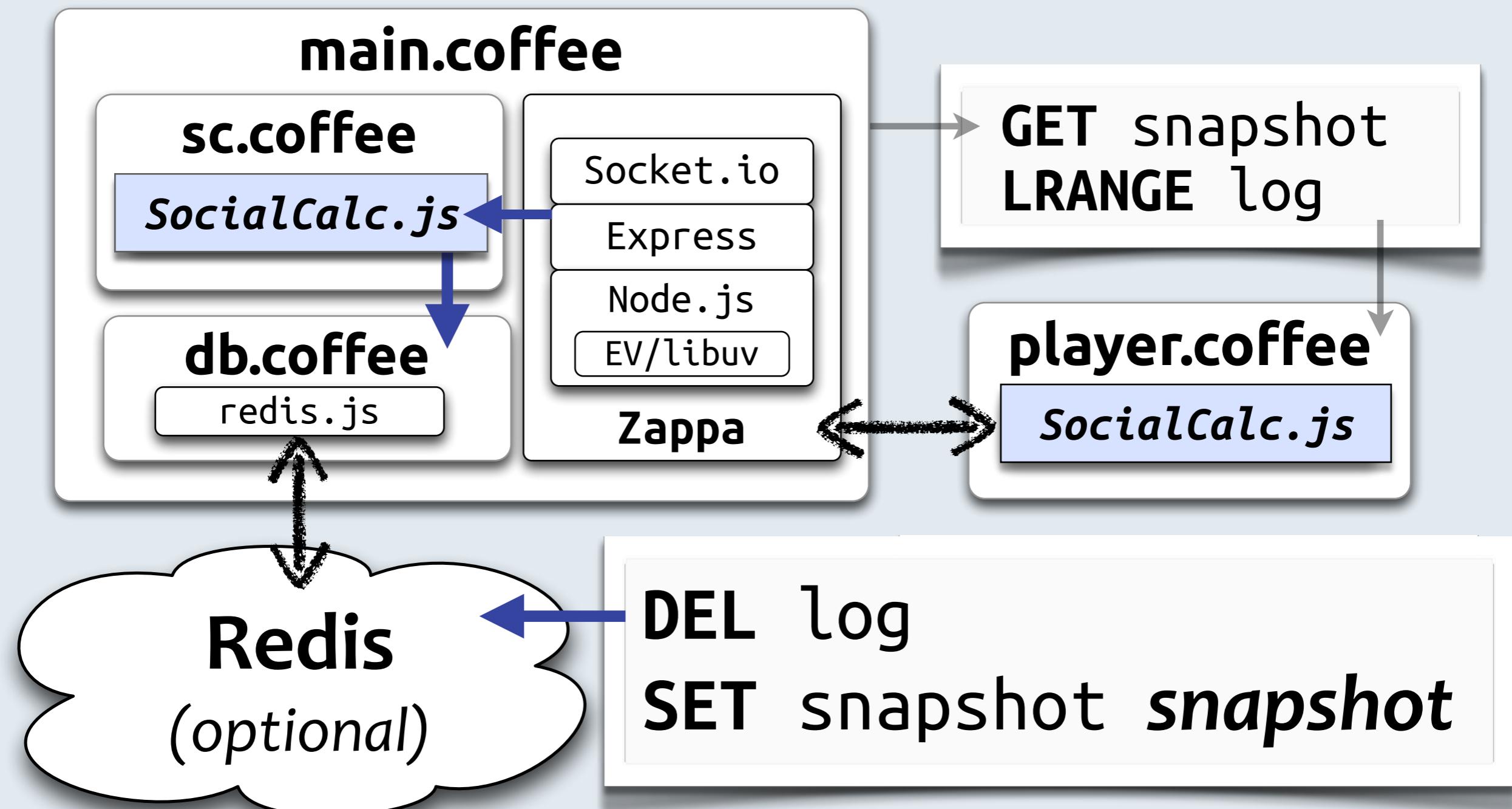
# EtherCalc 系統架構



# EtherCalc 系統架構



# EtherCalc 系統架構



# 跨頁即時更新

# 跨頁即時更新

向  
服  
端

# 跨頁即時更新

伺服端

客戶端

# 跨頁即時更新



ask.log: XXX

伺服端

客戶端

# 跨頁即時更新

伺服端

客戶端

ask.log: XXX

log: XXX, snapshot, log

# 跨頁即時更新

伺服端

客戶端

ask.log: XXX

log: XXX, snapshot, log

execute: set A1  
formula YYY!B2

# 跨頁即時更新

伺服端

客戶端

ask.log: XXX

log: XXX, snapshot, log

execute: set A1  
formula YYY!B2

recalc: YYY, snapshot

# 跨頁即時更新

伺服端

客戶端

ask.log: XXX

log: XXX, snapshot, log

execute: set A1  
formula YYY!B2

recalc: YYY, snapshot

recalc: YYY, snapshot

# REST 資源界面

# REST 資源界面

**GET** */\_/page*

**PUT** */\_/page*

# REST 資源界面

**GET** */\_/page*  
**PUT** */\_/page*

**POST** */\_/page*  
{commands: [...]}

# REST 資源界面

GET */page*

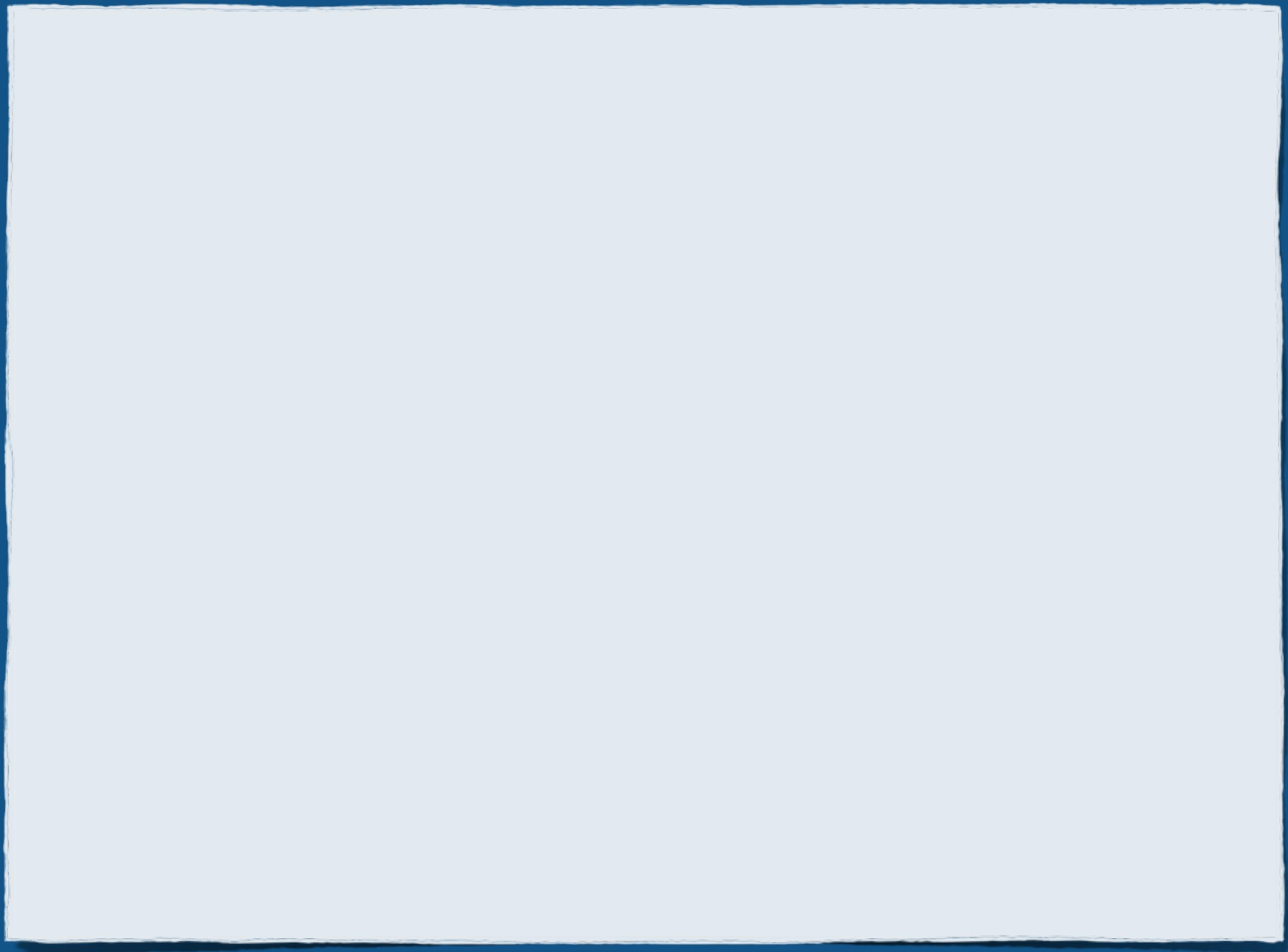
PUT */page*

POST */page*

{commands: [...]}

GET */page/cells/A1*

PUT */page/cells/B2*





JS

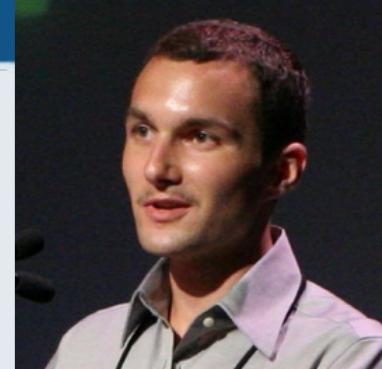
+



=



*CoffeeScript*



JS

+



=



*CoffeeScript*

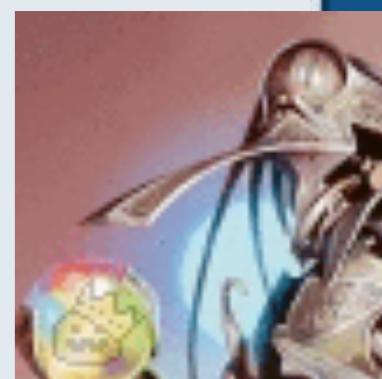


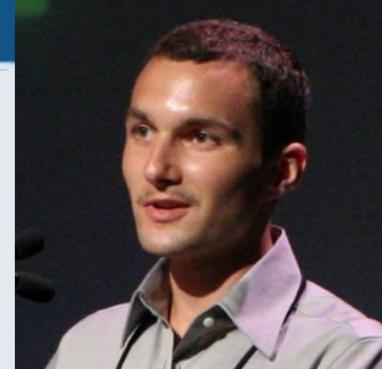
+



=

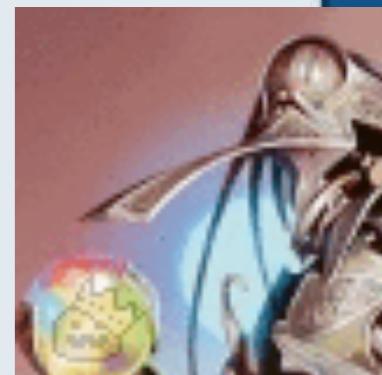
**Coco**



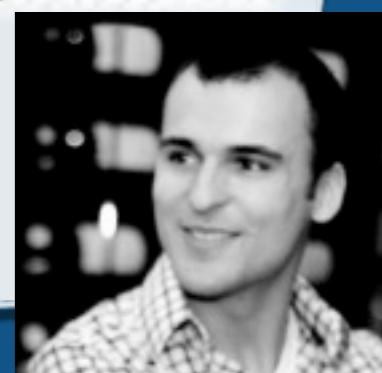


JS +  =  *CoffeeScript*

 +  = Coco



Coco +  =  *LiveScript* 



**JS**

# JS

```
stove.on("heat", function() {
```

# JS

```
stove.on("heat", function() {  
  pot.on("boil", function() {
```

# JS

```
stove.on("heat", function() {  
  pot.on("boil", function() {  
    rice.on("ready", function(dish) {
```

# JS

```
stove.on("heat", function() {  
  pot.on("boil", function() {  
    rice.on("ready", function(dish) {  
      setTimeout(function() {
```

# JS

```
stove.on("heat", function() {  
    pot.on("boil", function() {  
        rice.on("ready", function(dish) {  
            setTimeout(function() {  
                dish.serve();  
            }, 60000);  
        });  
    });  
});
```

# JS

```
stove.on("heat", function() {  
    pot.on("boil", function() {  
        rice.on("ready", function(dish) {  
            setTimeout(function() {  
                dish.serve();  
            }, 60000);  
        });  
    });  
});
```

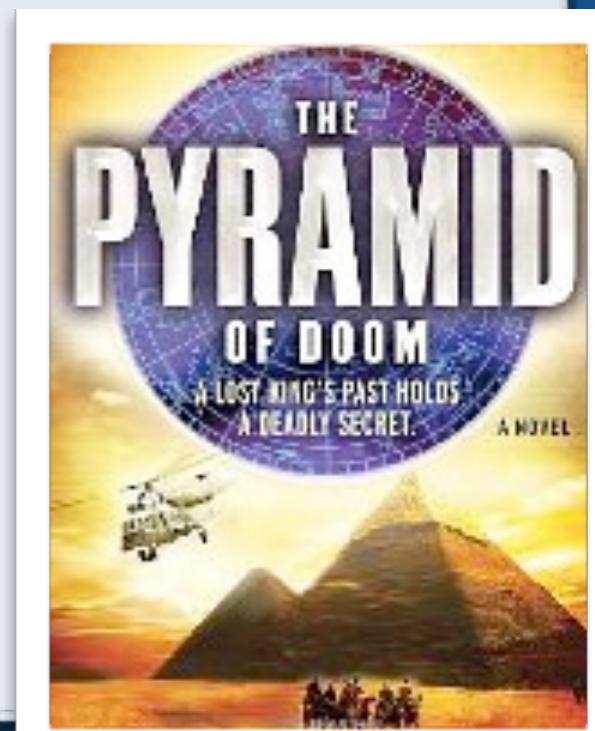
# JS

```
stove.on("heat", function() {  
    pot.on("boil", function() {  
        rice.on("ready", function(dish) {  
            setTimeout(function() {  
                dish.serve();  
            }, 60000);  
        });  
    });  
});  
});
```



# JS

```
stove.on("heat", function() {  
    pot.on("boil", function() {  
        rice.on("ready", function(dish) {  
            setTimeout(function() {  
                dish.serve();  
            }, 60000);  
        });  
    });  
});  
});
```





CoffeeScript



```
stove.on "heat", ->
```



```
stove.on "heat", ->  
  pot.on "boil", ->
```



```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->
```



```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->  
      setTimeout(
```



```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->  
      setTimeout(  
        -> dish.serve())
```



```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->  
      setTimeout(  
        -> dish.serve()  
        60000
```



```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->  
      setTimeout(  
        -> dish.serve()  
        60000  
      )
```



# CoffeeScript

```
stove.on "heat", ->  
  pot.on "boil", ->  
    rice.on "ready", (dish) ->  
      setTimeout(  
        -> dish.serve()  
        60000  
      )
```

**LiveScript** 



```
<- stove.on \heat
```



```
<- stove.on \heat  
<- pot.on \boil
```



```
<- stove.on \heat
```

```
<- pot.on \boil
```

```
dish <- rice.on \ready
```



```
<- stove.on \heat  
<- pot.on      \boil  
dish <- rice.on \ready  
<- (`setTimeout` 60000)
```



```
<- stove.on \heat
<- pot.on    \boil
dish <- rice.on \ready
<- (`setTimeout` 60000)
dish.serve!
```

# LiveScript

```
<- stove.on \heat  
<- pot.on \boil  
dish <- rice.on \ready  
<- (`setTimeout` 60000)  
dish.serve!
```



# OSDC.tw, 2012

僅代表個人立場



# OSDC.tw, 2012



**Shih-Chieh Ilya Li** @ilya

4月25日

@audreyt DrupalTW 7/7 想邀請你演講關於 EtherCalc & 開源之道，請回訊息囉！感恩



# OSDC.tw, 2012



**Shih-Chieh Ilya Li** @ilya

4月25日

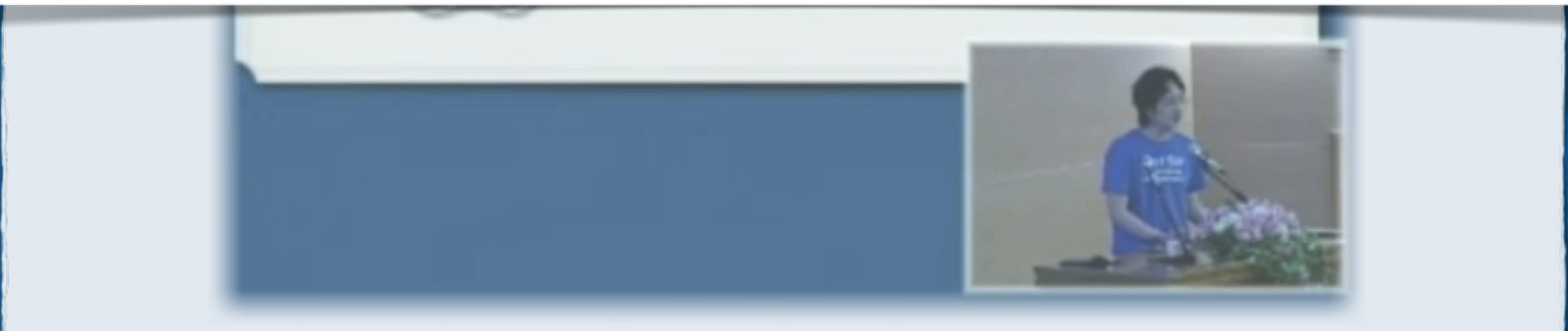
@audreyt DrupalTW 7/7 想邀請你演講關於 EtherCalc & 開源之道，請回訊息囉！感恩

亦  
未  
可  
知

唐鳳 @audreyt

4月25日

@ilya 感謝邀請！EtherCalc 整合 Drupal/Sheetnode 屆時應該尚未完成，所以可能等寫好了之後，下次/明年有機會再講。:-) # 不過 DrupalTW 看來很有趣，也許會「志在參加不在演講」...



# OSDC.tw, 2012



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**Shih-Chieh Ilya Li** @ilya

4月25日

@audreyt 了解（高風亮節...別打我）~~ 我知道 @charlesc 還很想請你講你所譯寫的「開源之道」，有沒有可能有一個小的分享呢？兩位請參考

哪來的「高風亮節」

哪來的「高風亮節」

只是沒寫過

Drupal 模組。





雖然 Isis 架過  
許多 Drupal 網站  
我也幫忙改了一些...



立思 2012 夏天愛思考系列講座



雖然 Isis 架過  
許多 Drupal 網站  
我也幫忙改了些...



立思 2012 夏天愛思考系列講座



鍋  
雖然 Isis 架過  
許多 Drupal 網站  
我也幫忙改了些...

可是我對架構

完全沒有概念。

可是我對架構



完全沒有概念。



《開源之樂》, 2012. 7. 1.

《開源之樂》, 2012. 7. 1.

-0fun



Audrey Tang

# 《開源之樂》, 2012. 7. 1.



-0fun



Audrey Tang

# 《開源之樂》, 2012. 7. 1.



-0fun

“內容過於抽象。”

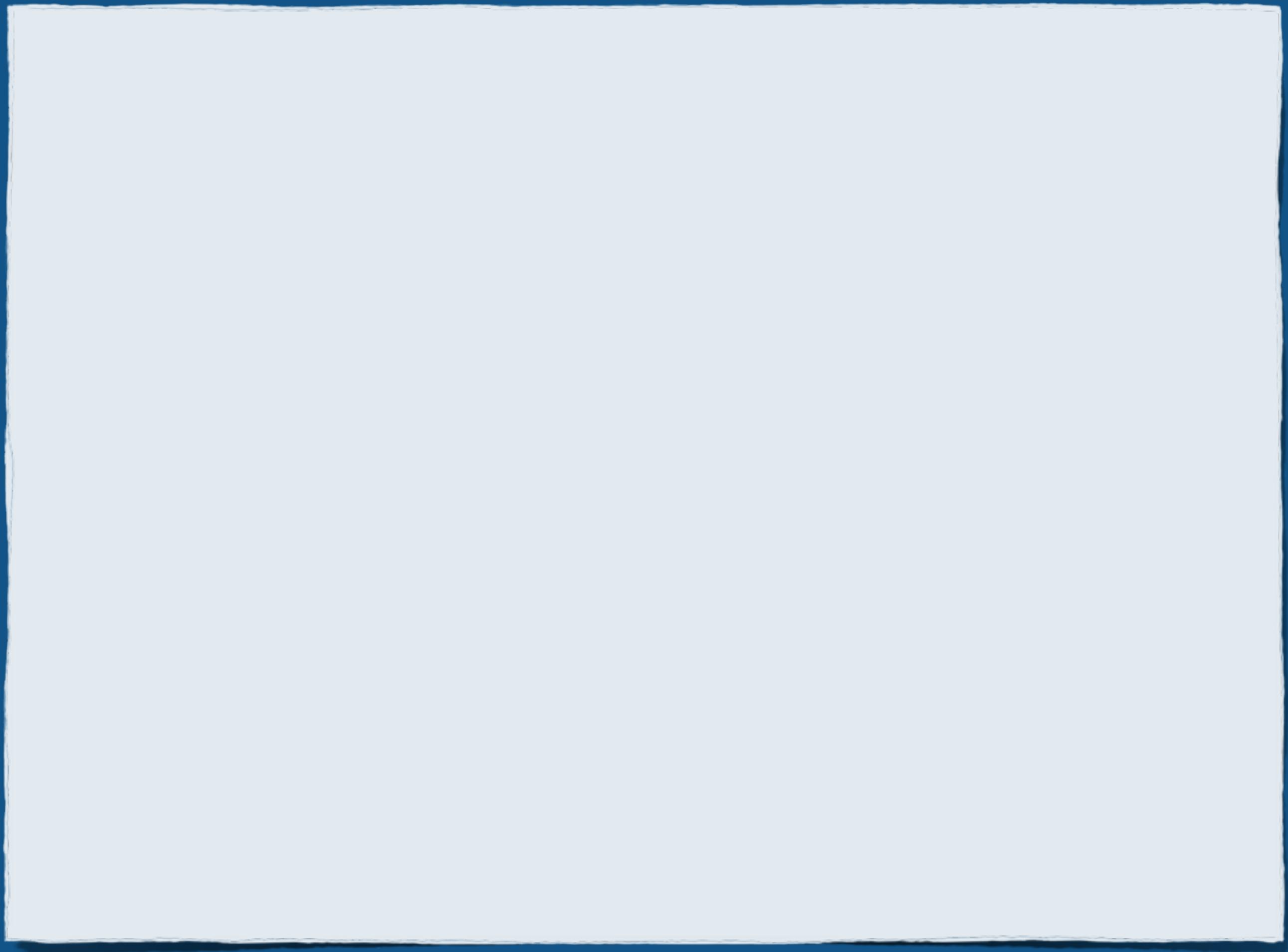
# 《開源之樂》, 2012. 7. 1.



-Ofun

“內容過於抽象。”

“這跟 Drupal  
到底有何關係？”



2012. 7. 2.

2012. 7. 2.

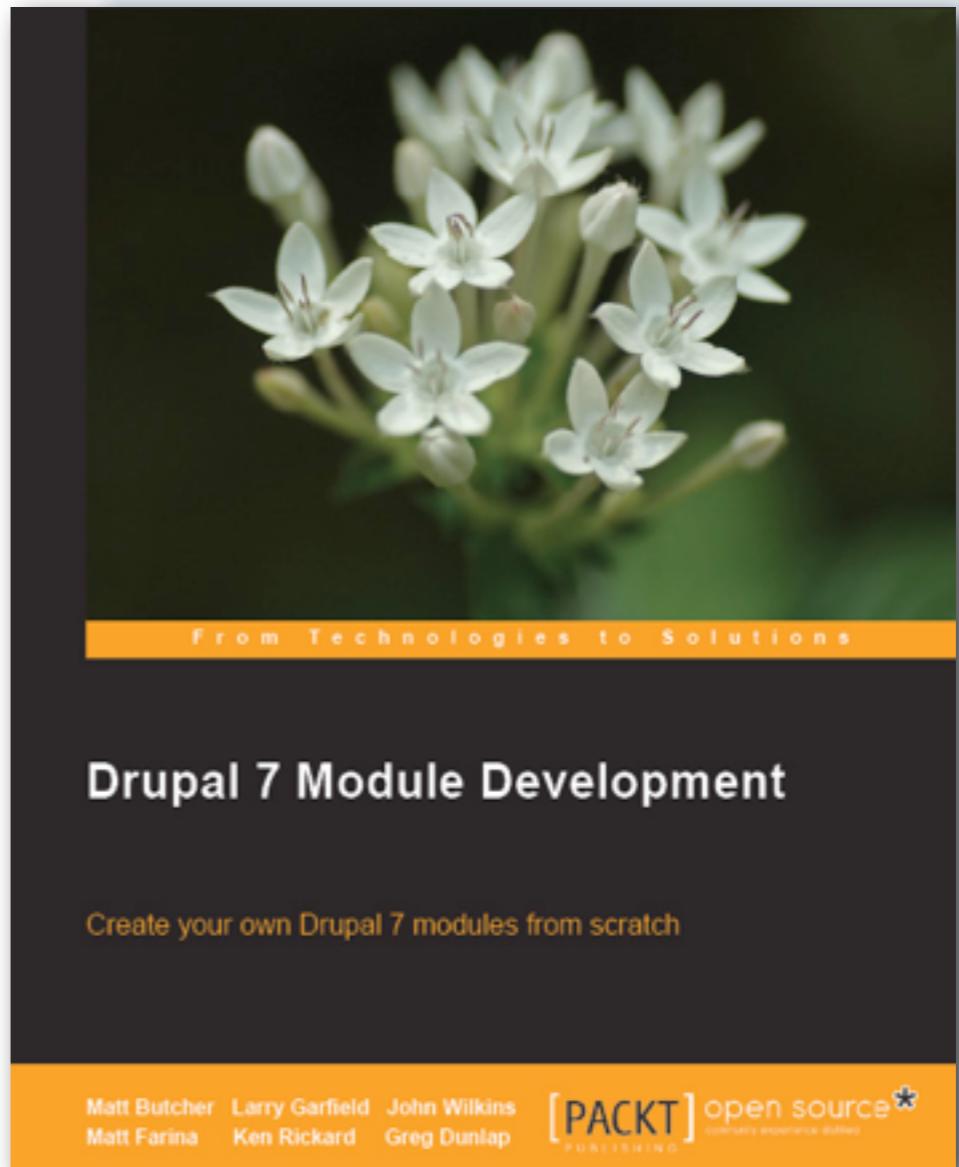
“你還是把

EtherCalc  
*for Drupal*

寫出來，  
比較有意義。”

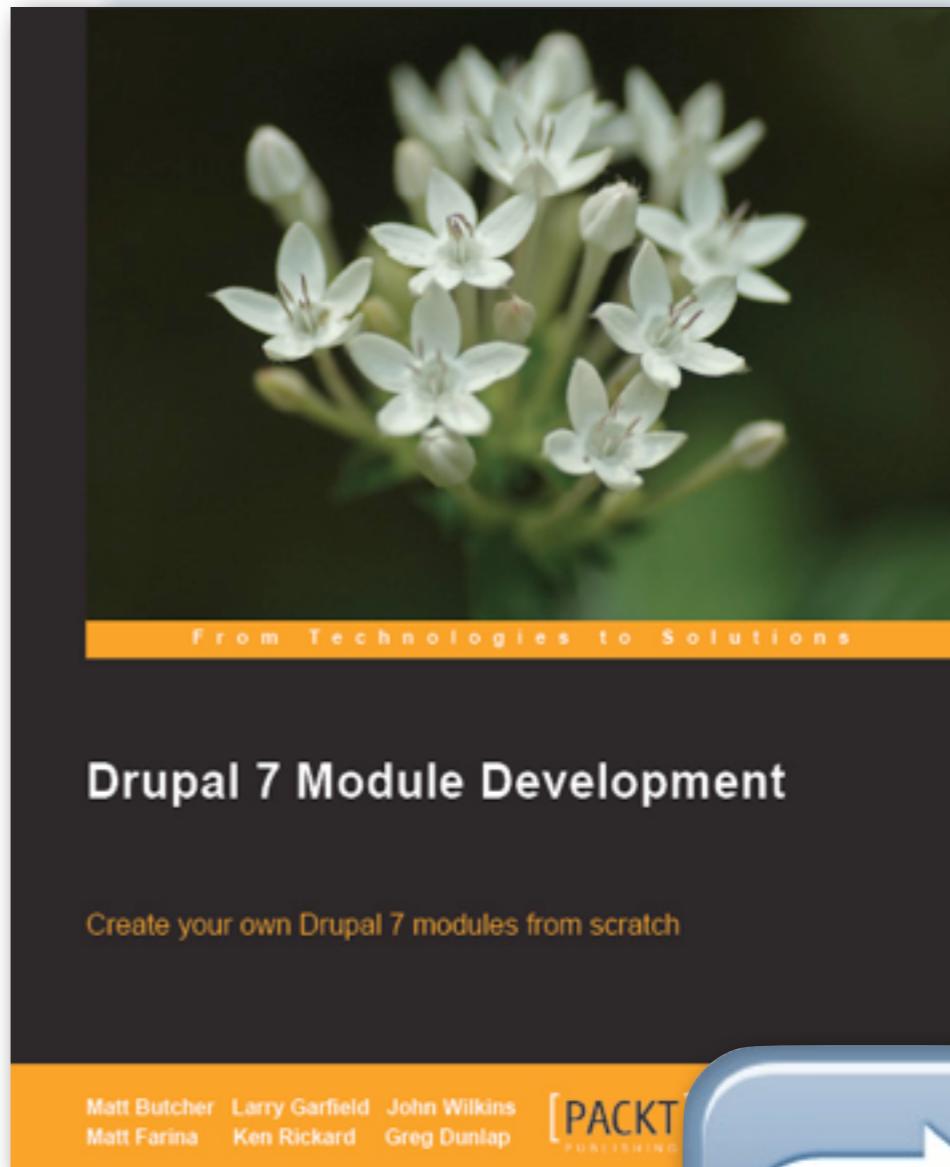
2012. 7. 2.

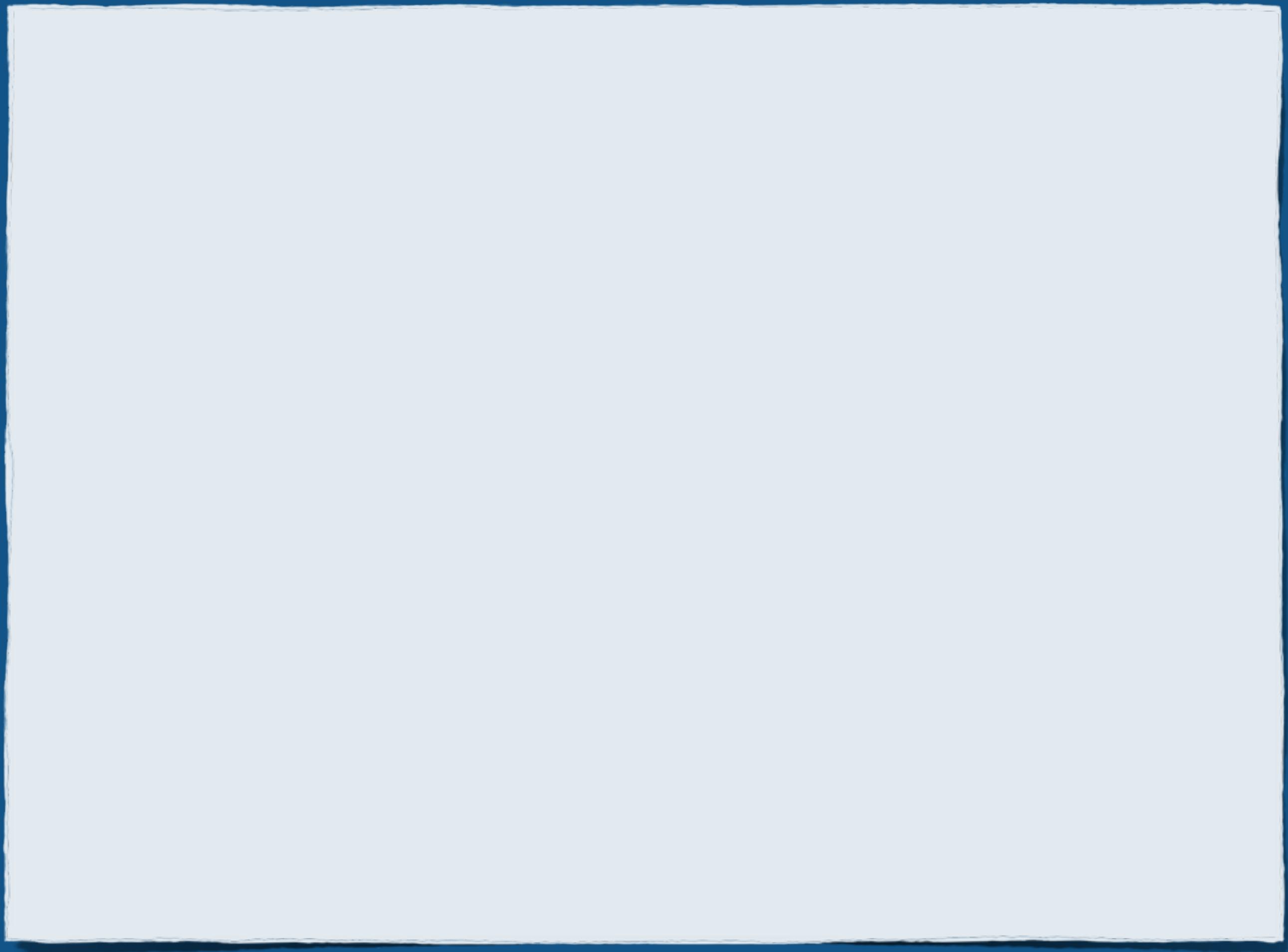
“你還是把  
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比較有意義。”



2012. 7. 2.

“你還是把  
EtherCalc  
*for Drupal*  
寫出來，  
比較有意義。”





2012. 7. 3.

2012. 7. 3.



感謝 Karim 幫忙

2012. 7. 3.



感謝 Karim 幫忙

一個早上  
就寫完了。



```
/**  
 *  
 * Implements hook_menu().  
 *  
 * In sheetnode_ethercalc_menu.info:  
 *   configure = admin/config/content/sheetnode/ethercalc  
 */  
  
function sheetnode_ethercalc_menu() {  
  array('admin/config/content/sheetnode/ethercalc' => array(  
    'title'          => 'EtherCalc',  
    'access arguments' => array('administer site configuration'),  
    'page callback'   => 'drupal_get_form',  
    'page arguments'  => array('_sheetnode_ethercalc_settings'),  
    'description'     => 'Administer settings for EtherCalc.',  
    'type'            => MENU_LOCAL_TASK,  
  ));  
}  
 
```

```
/**  
 *  
 * Implementation of the Sheetnode interface.  
 * In addition to the standard methods, it also provides  
 *  
 */  
  
function array  
array  
'ti  
'ac  
'pa  
'pa  
'de  
'ty  
));  
}  
}
```

**EtherCalc host**

Enter the domain name of the EtherCalc server. Leave blank to use same domain as your Drupal installation.

**EtherCalc port**

Enter the port of the EtherCalc server.

**Activate EtherCalc on**

- Edit mode only
- Edit and fiddle modes

**Save configuration**

```
/**  
 * Implements hook_sheetnode_plugins().  
 */  
function sheetnode_ethercalc_sheetnode_plugins(  
  $value, $save_element, $context  
) {  
  // Only turn on Ethercalc if we're editing the node.  
  if (!empty($save_element)) {  
    $ethercalc_host = variable_get('sheetnode_ethercalc_host', '' );  
    $ethercalc_port = variable_get('sheetnode_ethercalc_port', '8000' );  
    $ethercalc_path = ...;  
    drupal_add_js($ethercalc_path . '/socket.io/socket.io.js#');  
    drupal_add_js($ethercalc_path . '/zappa/zappa.js#');  
    drupal_add_js($ethercalc_path . '/static/md5.js#');  
    drupal_add_js($ethercalc_path . '/player/broadcast.js#');  
    drupal_add_js($ethercalc_path . '/player/main.js#');  
  }  
}
```

/\*\*

Dashboard Content Structure Appearance People Modules Configuration Reports Help Hello root Log out ▾

Add content Find content Edit shortcuts

Edit Sheetnode Test +

VIEW EDIT X

Home » Test

Title \*

Test

Home

Format

Edit Sort Comment Names

'Drupal!

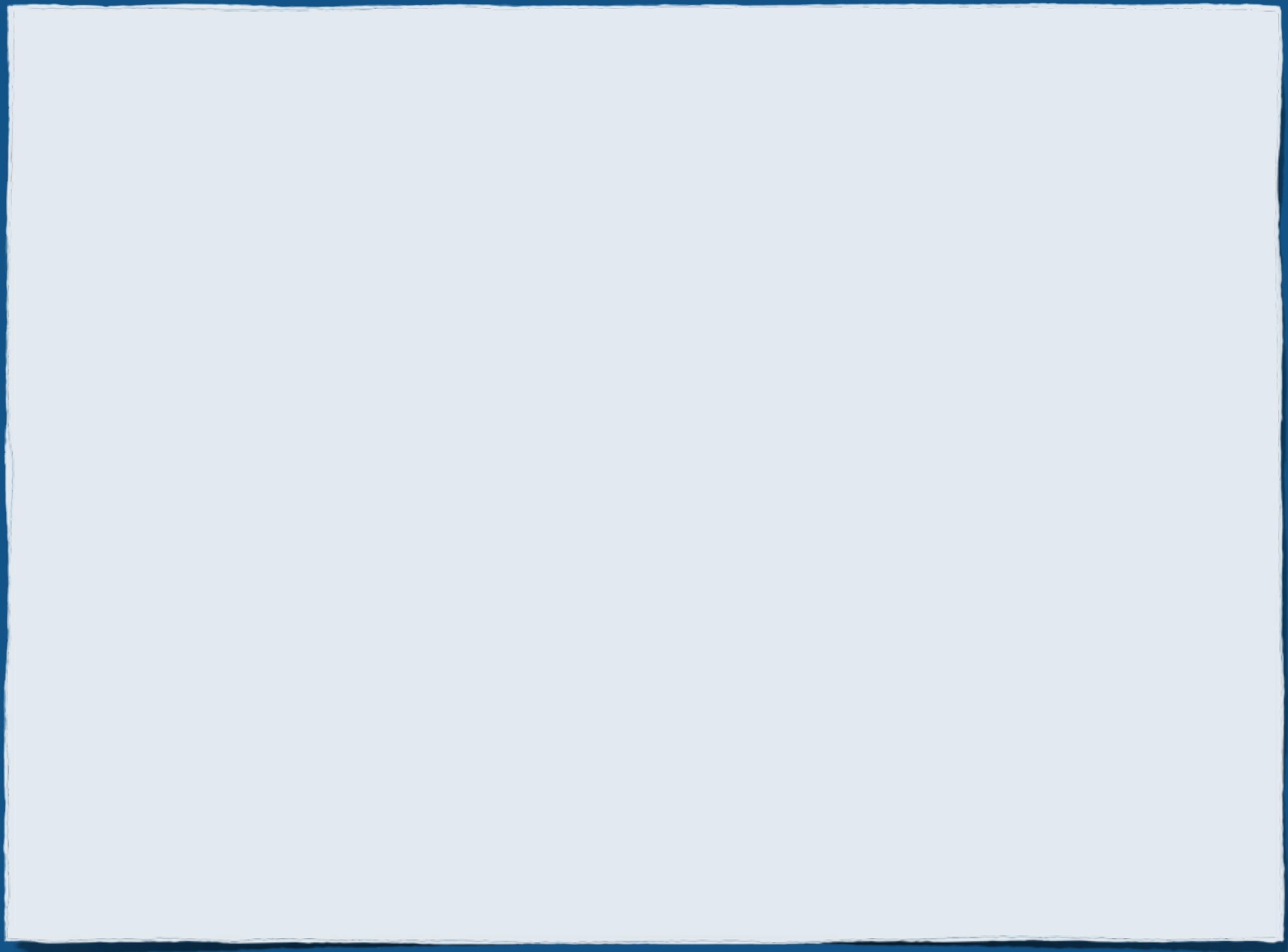
A B C D E F G

1 EtherCalc

2 forDrupal!

3

}



2012. 7. 4.

# 2012. 7. 4.

## 立思 2012 夏天·愛思考·系列講座



### 活動資訊

#### ⌚ 活動日期

2012/07/22 13:00 ~ 08/26 16:30  
( iCal/Outlook, Google Calendar )

#### 📝 報名時間

2012/05/15 06:23 ~ 08/19 13:30

#### 📍 活動地點

集思台大會議中心 / 台北市羅斯福路四段85號  
B1 ( 國立台灣大學第二活動中心內 )

#### 🏢 報名人數

無上限

#### 🎫 票種 - 【高更的大溪地】預售優惠票/學生票

票價: NTD \$750  
2012/05/15 06:23 ~ 07/26 00:00

#### 🎫 票種 - 【邱妙津的手記書信】預售優惠票/學生票

票價: NTD \$750  
2012/05/15 06:23 ~ 08/02 00:00

#### 🎫 票種 - 【挪威的森林】預售優惠票/學生票

票價: NTD \$750  
2012/05/15 06:23 ~ 08/15 00:00

# 2012. 7. 4.

## 立思 2012 夏天·愛思考·系列講座



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# 2012. 7. 4.

立思 2012 夏天·愛思考·系列講座

活動資訊



## Add content

Home

Sheetnode import from XLS

Create a new sheetnode with content from an existing spreadsheet.



票種 - 【高更的大溪地】預售優惠票/學生票

票價: NTD \$750

2012/05/15 06:23 ~ 07/26 00:00

票種 - 【邱妙津的手記書信】預售優惠票/學生票

票價: NTD \$750

2012/05/15 06:23 ~ 08/02 00:00

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# 2012. 7. 4.

## 立思 2012 夏天·愛思考·系列講座

活動資訊



草薙素子

fol ≡ co Σ

A	B	C	D	E
1 序號	姓名	機構	職稱	票種
2	1 草薙素子	公安九課	少佐	【攻殼機動隊劇場版】自由訂價特別場
3	225 Isis Kang	立思	負責人	【挪威的森林】+【危險療程】
4	1001 唐鳳	Socialtext	Untitled Page	【高更的大溪地】+【邱妙津的手記書信】



票種 - 【高更的大溪地】預售優惠票/學生票

票價: NTD \$750

2012/05/15 06:23 ~ 07/26 00:00

票種 - 【邱妙津的手記書信】預售優惠票/學生票

票價: NTD \$750

2012/05/15 06:23 ~ 08/02 00:00

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4	1001 唐鳳	Socialtext	Untitled Page	【高更的大溪地】+【邱妙津的手記書信】

「唯有受傷的醫生才能通往痊癒。」

「生死去來，棚頭傀儡，一線斷時，落落磊磊。」

票種 - 【高更的大溪地】預售優惠票/學生票  
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## 立思 2012 夏天·愛思考·

草薙素子

A	B	C
1 序號	姓名	機構
2	1 草薙素子	公安九課
3	225 Isis Kang	立思
4	1001 唐鳳	Socialtex



2012-07-22

-----  
夏天·愛思考·系列講座

【攻殼機動隊】  
自由訂價特別場

報名序號：#1

報名人：草薙素子  
公安九課 少佐

-----  
立思科技藝術有限公司  
統一編號：53343434

http://lith.tw/  
-----



E

動隊劇場版】自由訂價特別場  
森林】+【危險療程】  
大溪地】+【邱妙津的手記書信】

【高更的大溪地】預售優惠票/學生票

NTD \$750

/05/15 06:23 ~ 07/26 00:00

【邱妙津的手記書信】預售優惠票/學生

NTD \$750

/05/15 06:23 ~ 08/02 00:00

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結論是：

# 結論是：

Jul 02, 2012



\* Chase latest /player/\* layout from EtherCalc. [...](#)

audreyt authored 23 minutes ago



\* Only replace once for our substitutions. [...](#)

audreyt authored 33 minutes ago



**Better .info description**

infojunkie authored 43 minutes ago



\* Add a configure link for EtherCalc module.

audreyt authored an hour ago



**Support arbitrary name-value pairs in SocialCalc edit settings #1301334**

infojunkie authored an hour ago



**Add sheetnode\_ethercalc submodule #1301334**

infojunkie authored 2 hours ago

結論是：

Jul 02, 2012



\* Chase latest /player/\* layout from EtherCalc. ...

audreyt authored 23 minutes ago

\* Only place once for our substitutions. ...

audreyt authored 30 minutes ago

Better info description

infojunkie authored 43 minutes ago

\* Add a configure link for EtherCalc module.

audreyt authored 1 hour ago

Support arbitrary name-value pairs in SheetCalc module settings #1301334

infojunkie authored 1 hour ago

寫 Drupal 模組

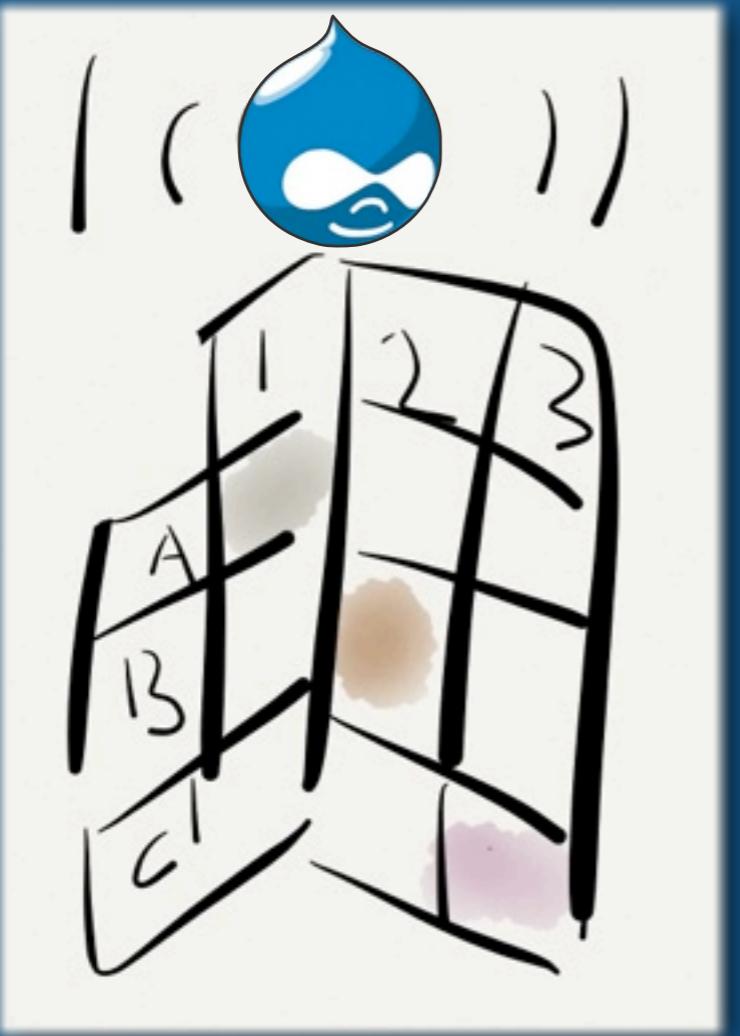
真的很簡單！



Add sheetnode\_ethercalc submodule #1301334

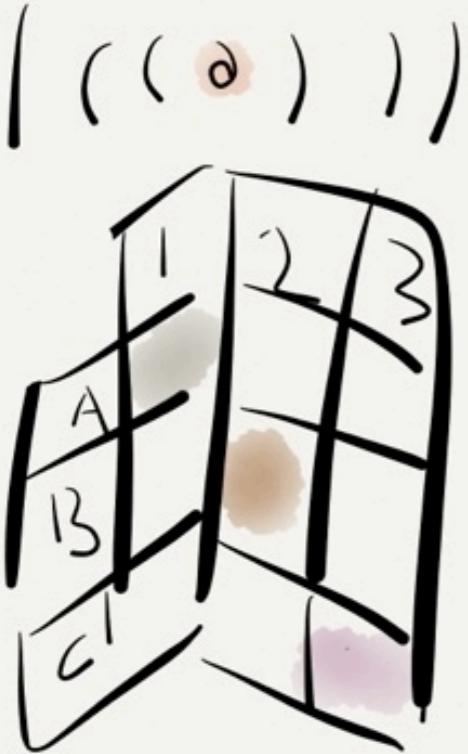
infojunkie authored 2 hours ago

# 感謝收看！



EtherCalc  
*for* Drupal

# EtherCalc



cc creative commons

- 以著作結合本文件之人，在法律許可之範圍內，拋棄該著作依著作權法所享有之權利，及其相關或鄰接的法律權利，宣告該著作貢獻至公共領域。
- 採用 CC0 之著作，不要求姓名表彰。



[SheetNode.org](https://SheetNode.org)