

# Agile Trust, Wiki Nature, and Business Logic Futures

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Ward Cunningham  
AboutUs.org

WikiSym 2007  
(cc) attribution, share-alike  
<http://c2.com/wikisym2007>

# Trust Observed

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Science

v308 pp 78-83

# Trust Observed

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Science

v308 pp 78-83

## Getting to Know You: Reputation and Trust in a Two-Person Economic Exchange

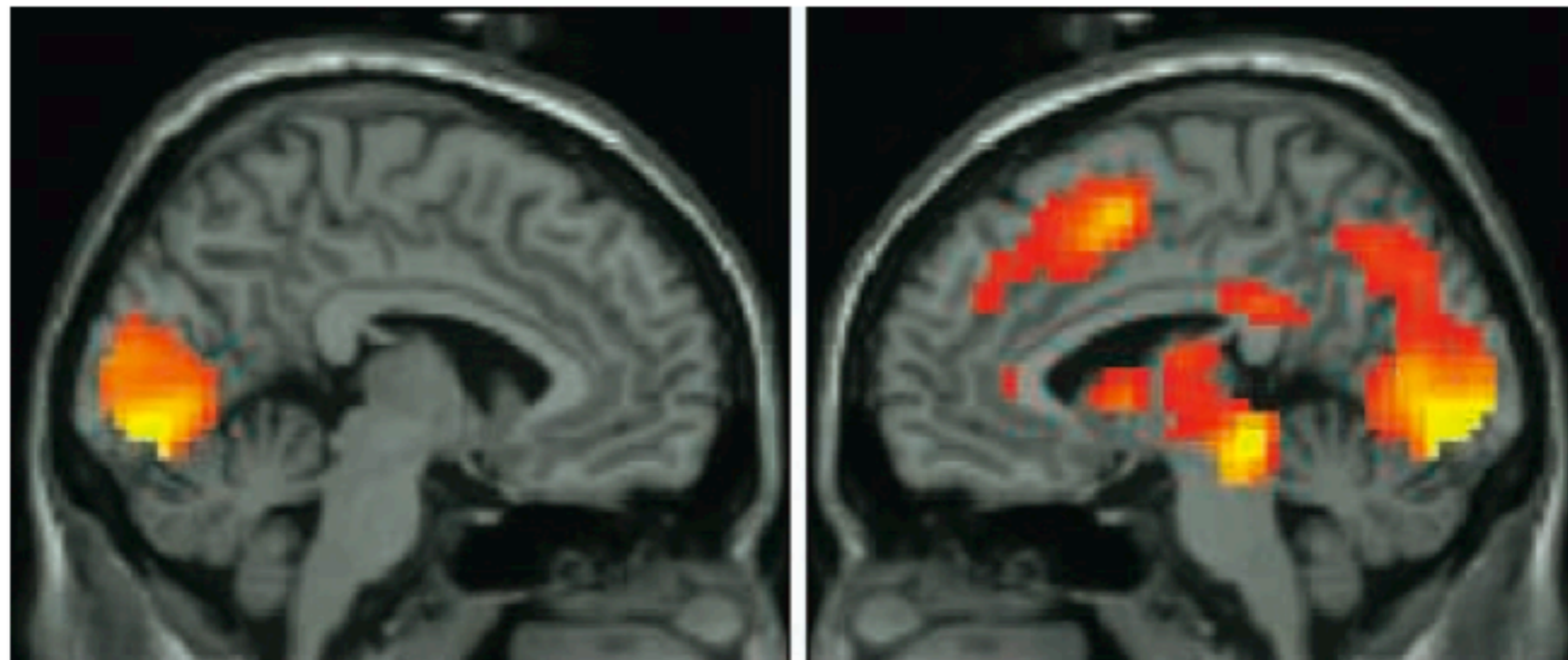
Brooks King-Casas,<sup>1</sup> Damon Tomlin,<sup>1</sup> Cedric Anen,<sup>3</sup>  
Colin F. Camerer,<sup>3</sup> Steven R. Quartz,<sup>3</sup> P. Read Montague<sup>1,2\*</sup>

Using a multiround version of an economic exchange (trust game), we report that reciprocity expressed by one player strongly predicts future trust expressed by their partner—a behavioral finding mirrored by neural responses in the dorsal striatum. Here, analyses within and between brains revealed two signals—one encoded by response magnitude, and the other by response timing. Response magnitude correlated with the "intention to trust" on the next play of the game, and the peak of these "intention to trust" responses shifted its time of occurrence by 14 seconds as player reputations developed. This temporal transfer resembles a similar shift of reward prediction errors common to reinforcement learning models, but in the context of a social exchange. These data extend previous model-based functional magnetic resonance imaging studies into the social domain and broaden our view of the spectrum of functions implemented by the dorsal striatum.

## Getting to Know You: Reputation and Trust in a Two-Person Economic Exchange

Trust Observed

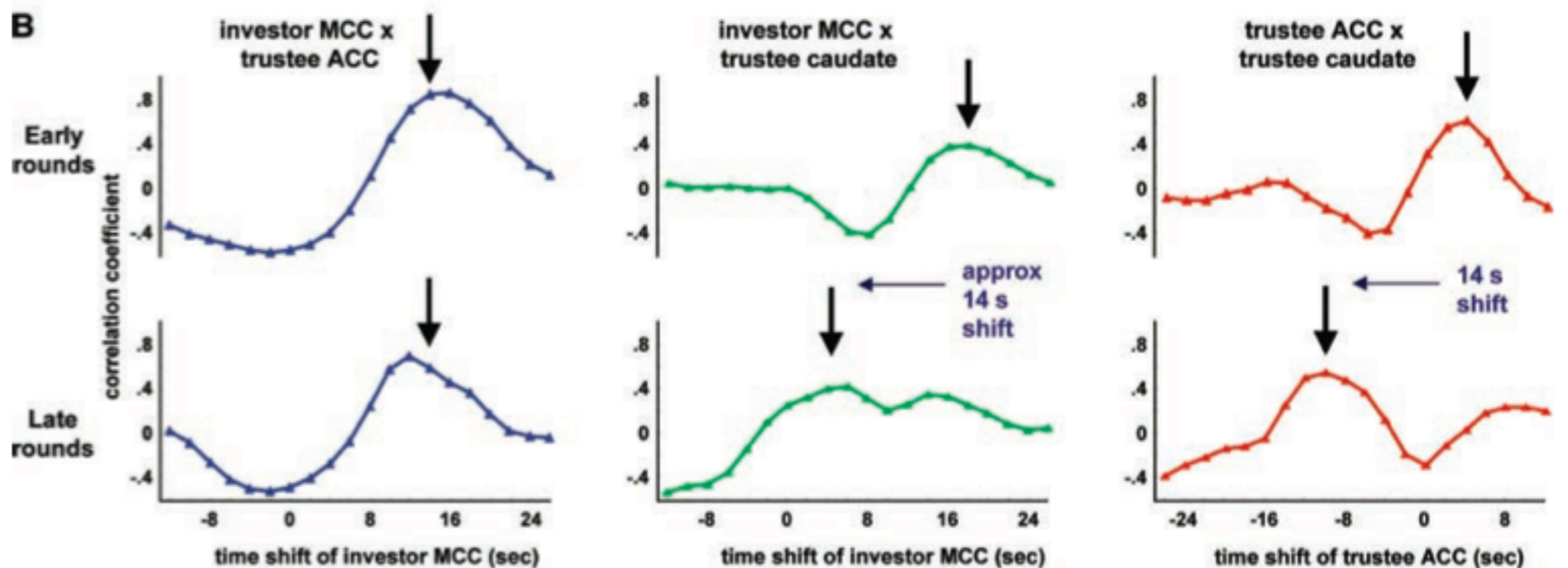
Science  
v308 pp 78-83



**Tête-à-tête.** Brain scans of the investor (*left*) and trustee in an economic exchange game shed light on the neural basis of trust.

# Getting to Know You: Reputation and Trust in a Two-Person Economic Exchange

Trust Observations



see in an  
of trust.

# Investment Game

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Simple rules,  
Simple behavior

# Wiki Wiki Web

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Simple rules,  
Complex behavior

# Software Development

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Complex rules,  
Complex behavior,  
Often undesirable

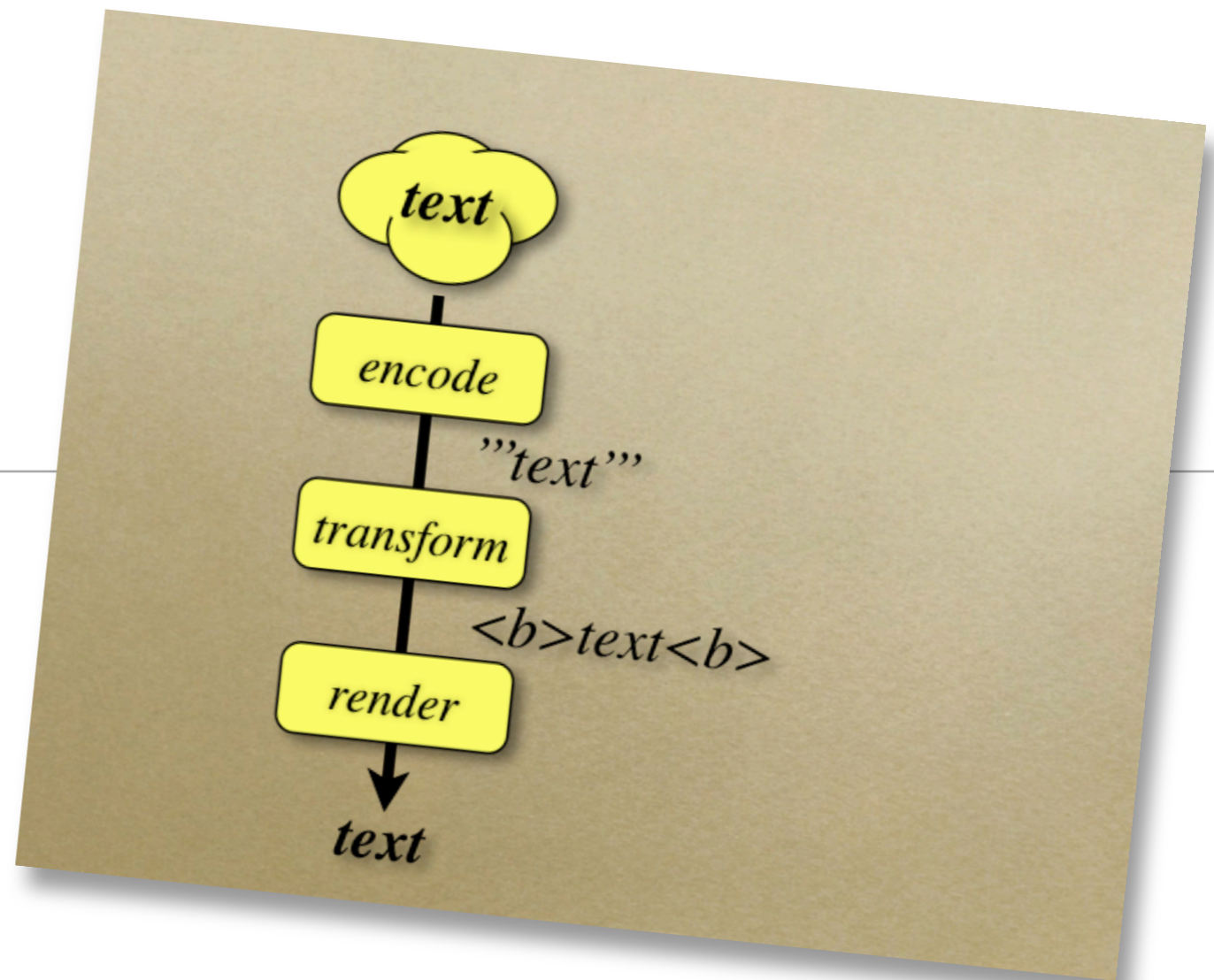
# Wiki Wiki Web

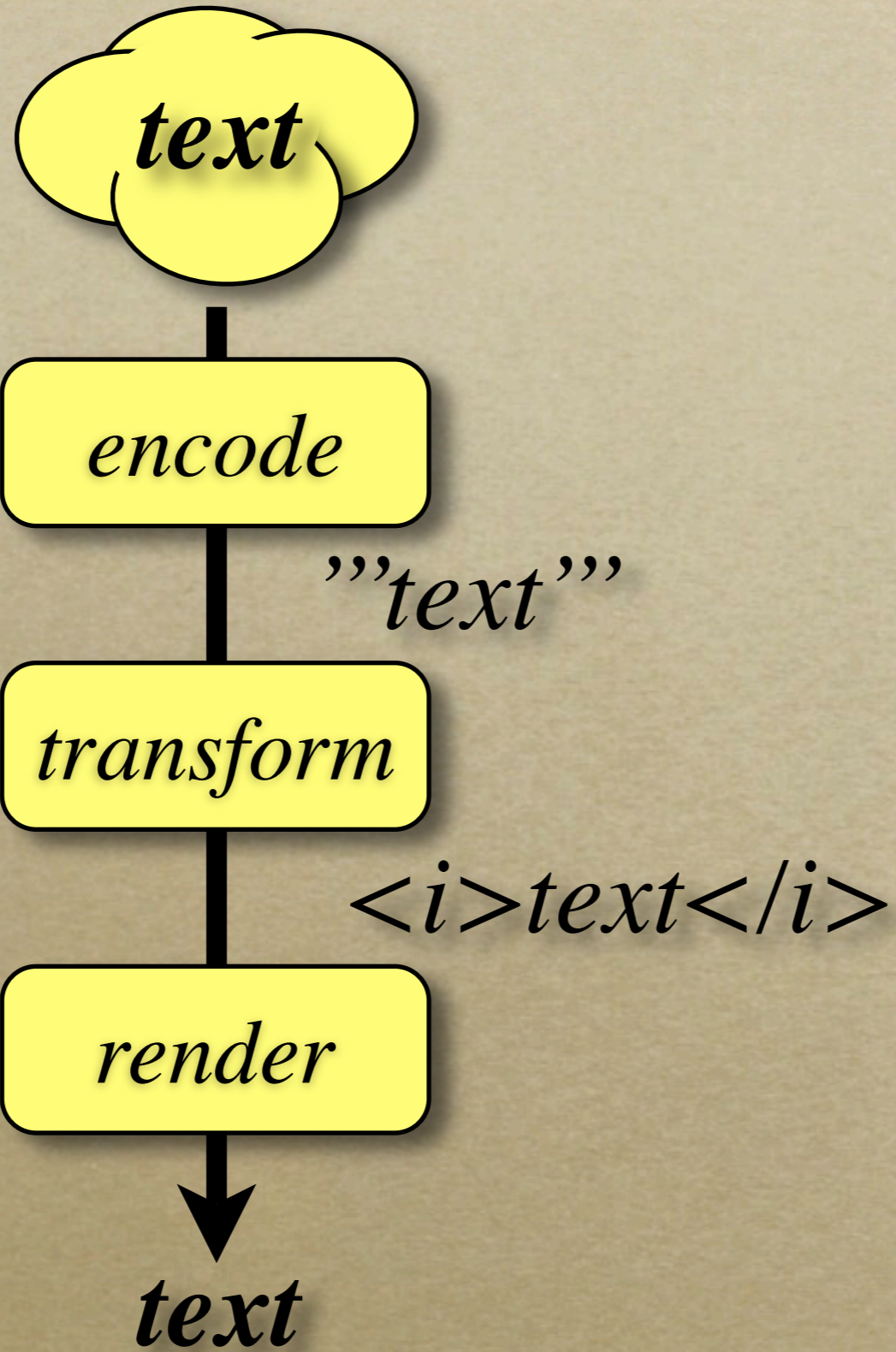
---

Feedback loops  
at many levels

# Wiki Wiki Web

Feedback loops  
at many levels





*text*

*encode*

*misunderstanding*

*”text”*

*transform*

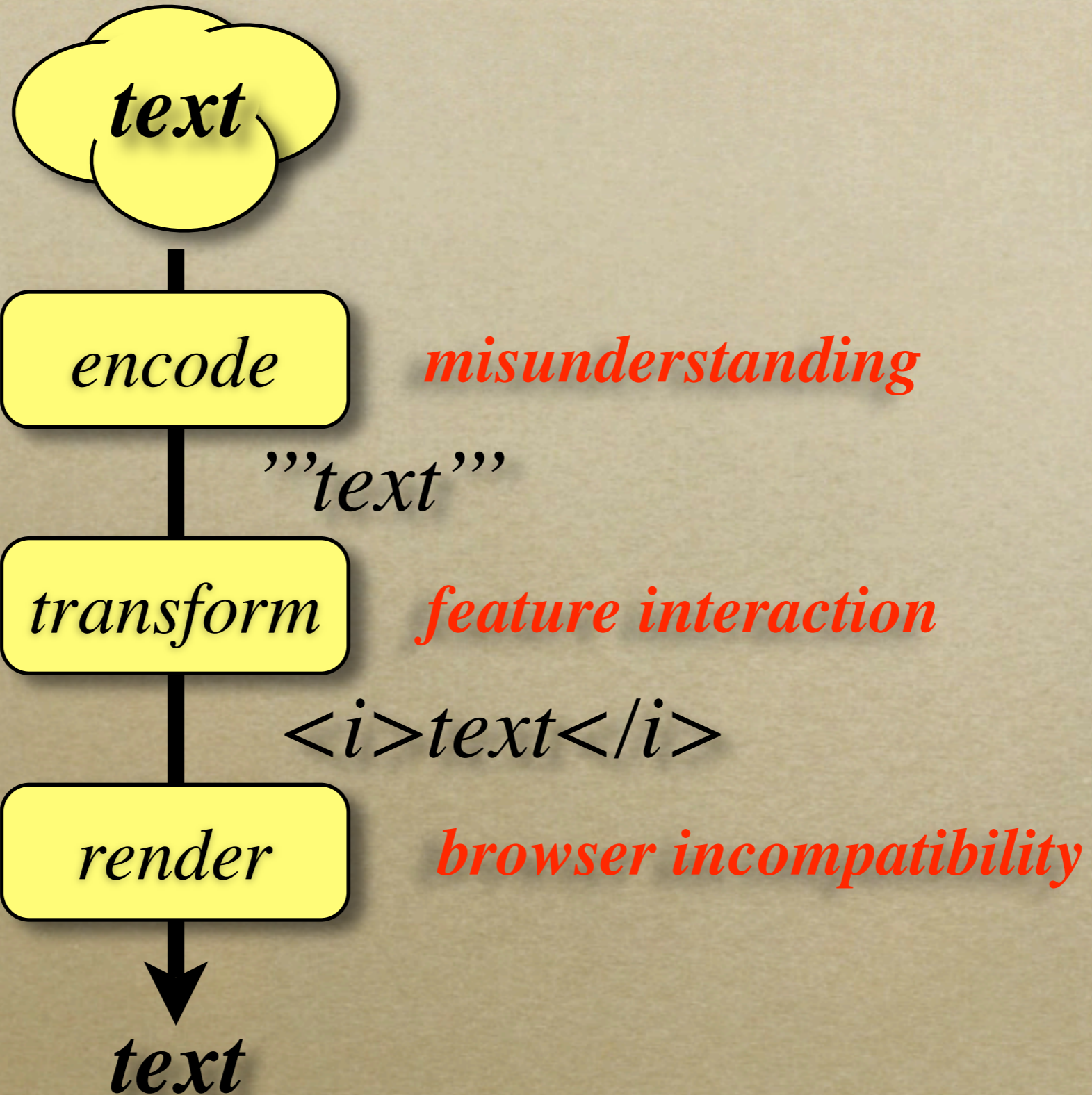
*feature interaction*

*<i>text</i>*

*render*

*browser incompatibility*

*text*



*text*

*encode*

*misunderstanding*

*""text""*

*transform*

*feature interaction*

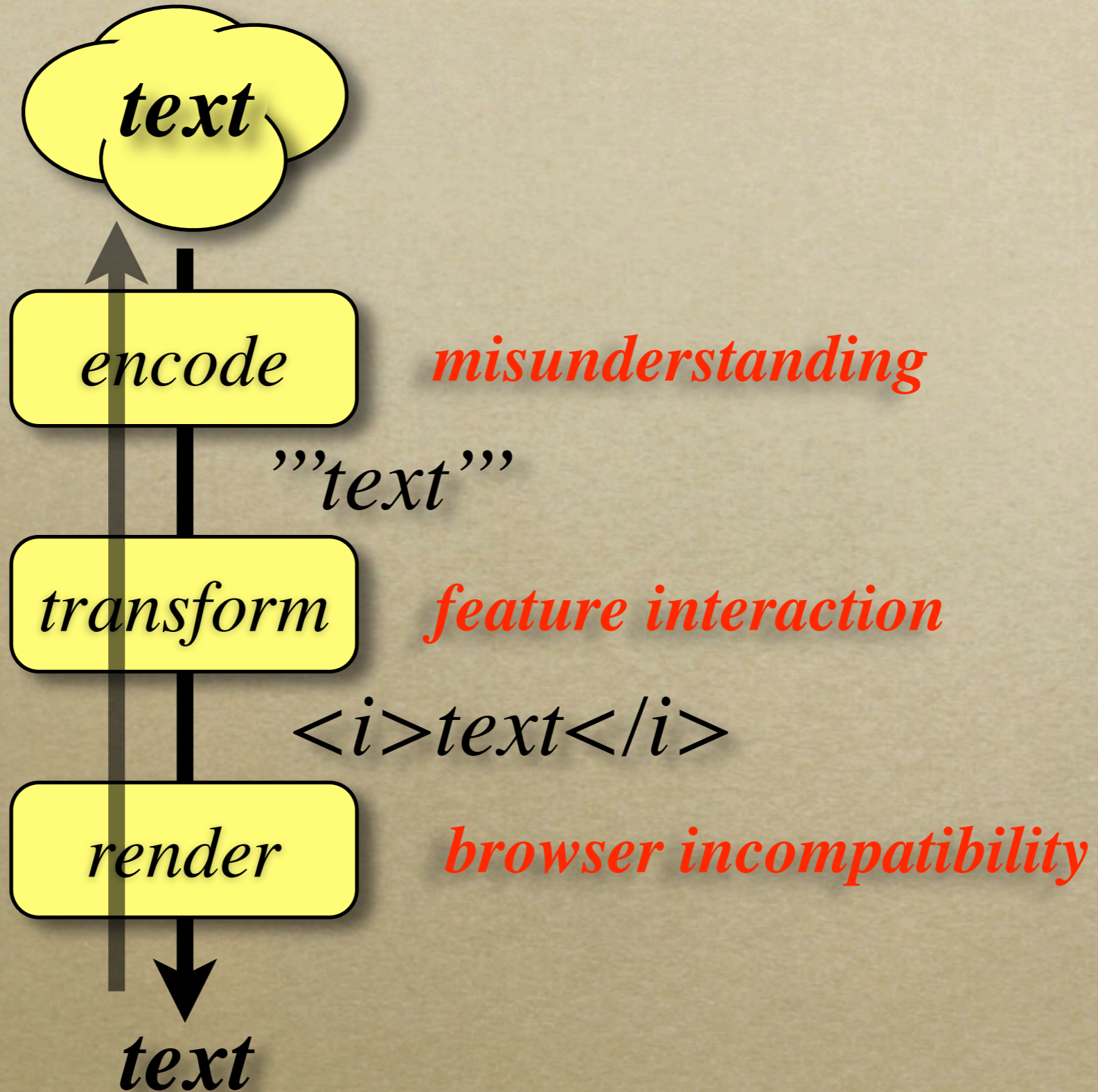
*<i>text</i>*

*render*

*browser incompatibility*

*text*

*feedback  
makes  
whole  
process  
robust*



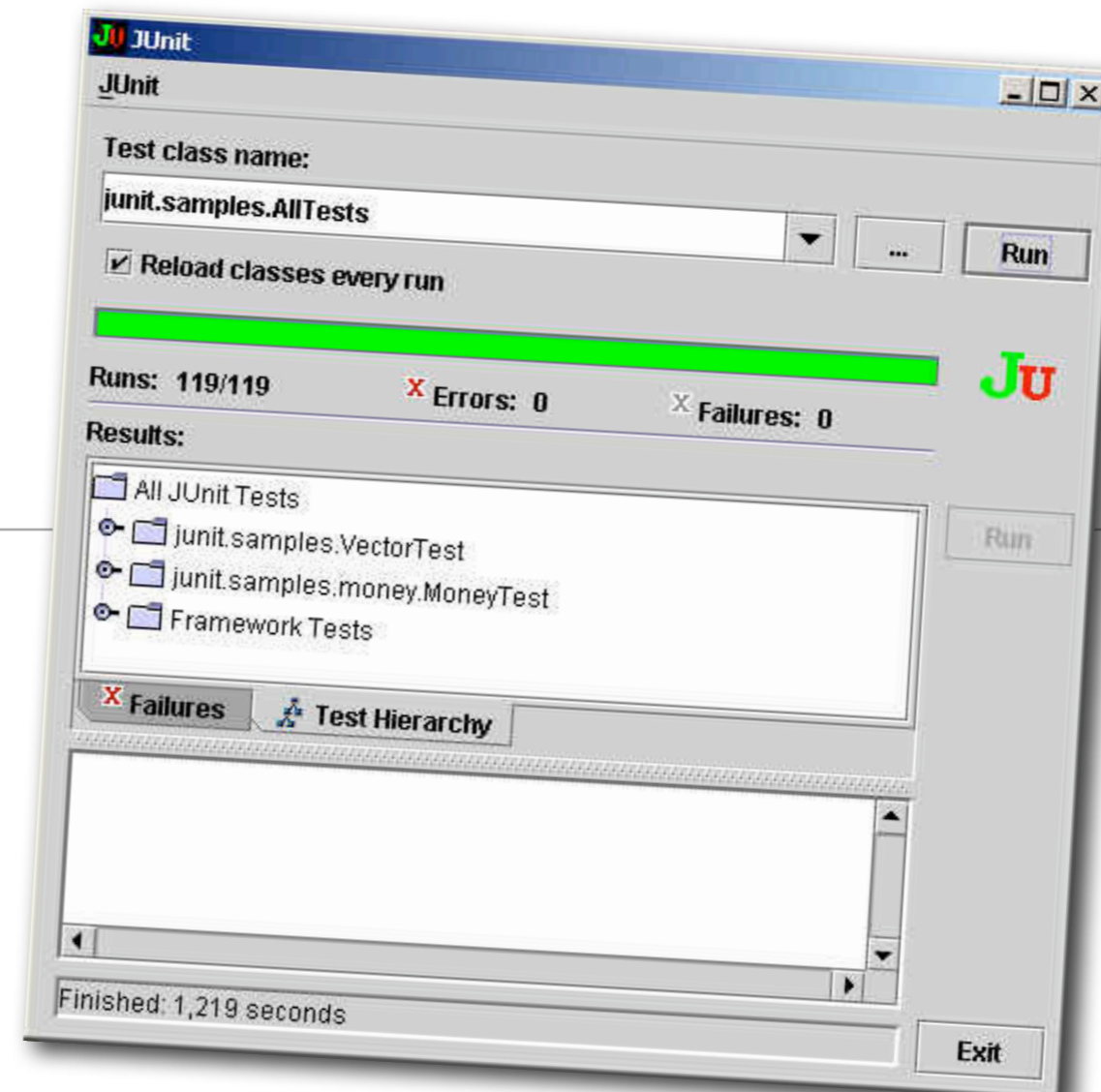
# Agile Software

---

Feedback loops  
at many levels

# Agile Software

Feedback loops  
at many levels



# Enlarging the Loop

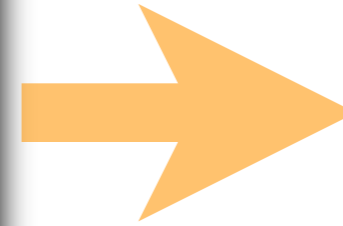
---

Desire test results  
that anyone can  
interpret

# Enlarging the Loop

eg.Division		
numerator	denominator	quotient()
1000	10	100.0000
-1000	10	-100.0000
1000	7	142.85715
1000	.00001	100000000
4195835	3145729	1.3338196

Fit



eg.Division		
numerator	denominator	quotient()
1000	10	100.0000
-1000	10	-100.0000
1000	7	142.85715
1000	.00001	100000000
4195835	3145729	1.3338196

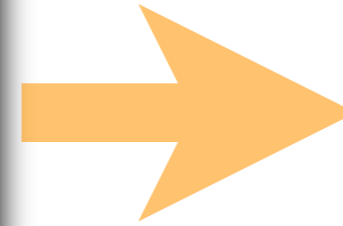
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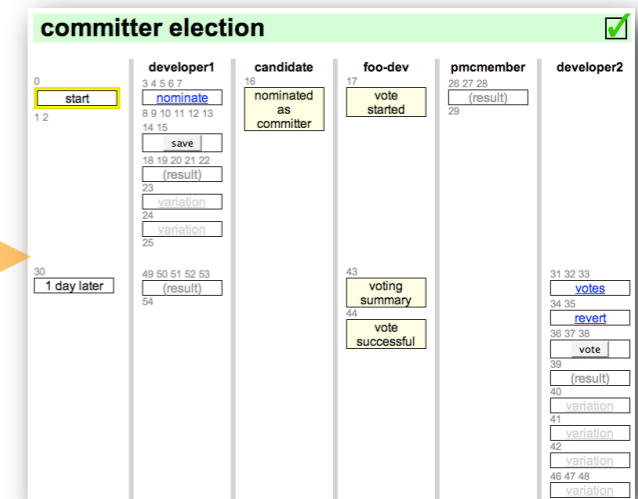
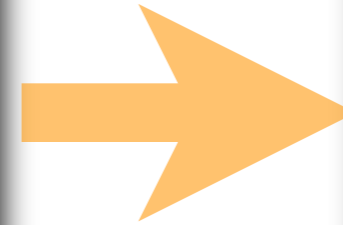


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Desire test results that anyone can interpret

```
1: // The complete committer election sequence
2: ignore_email_from('ipzilla');
3: login("developer1");
4: find("project_committer", "projectId == 'technology.foo'");
5: check("Committer - technology.foo");
6: check('Nominate');
7: press('nominate');
8: check("Nominate a new committer");
9: check("revert");
10: check("explore");
11: enter('name', 'Karl Candidate');
12: enter('email', 'candidate@example.com');
13: enter('mailinglist', 'foo-dev@example.com');
```

Swim



# Deploying the Loop

---

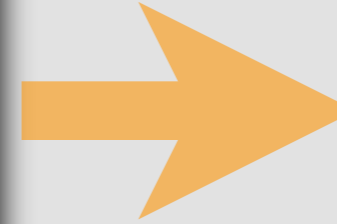
Creating a  
community focused  
environment

# Deploying the Loop

Creating a community focused environment

## Fitnessse

eg.Division		
numerator	denominator	quotient()
1000	10	100.0000
-1000	10	-100.0000
1000	7	142.85715
1000	.00001	100000000
4195835	3145729	1.3338196

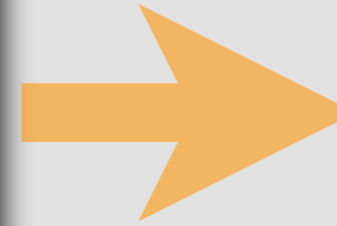


eg.Division		
numerator	denominator	quotient()
1000	10	100.0000
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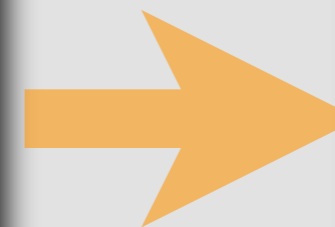


eg.Division		
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1000	10	100.0000
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Creating a community focused environment

## Process Explorer

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10: check("explore");
11: enter('name', 'Karl Candidate');
12: enter('email', 'candidate@example.com');
13: enter('mailinglist', 'foo-dev@example.com');
```



# Eclipse Foundation Portal

---

Enterprise integration software

Opportunity to push Agile boundary -- situated research

Justified solely on value to membership

# Forms

---

These things multiply like rabbits.

# Forms

These things multiply like rabbits.

### Alex Developer Address

[\[revert\]](#)

Address 1:

Address 2:

Address 3:

City:

State/Province:

Postal Code:

Country:

Phone:

Fax:

Mobile:

Email:

I still work for the same employer:  yes  no

# committer election



	developer1	candidate	foo-dev	pmcmember	developer2
0	3 4 5 6 7	16	17	26 27 28	
1 2	<a href="#">nominate</a>	nominated	vote	(result)	
	8 9 10 11 12 13				
	14 15				
	<a href="#">save</a>				
	18 19 20 21 22				
	(result)				
	23				
	<a href="#">variation</a>				
	24				
	<a href="#">variation</a>				
	25				
30	49 50 51 52 53				
1 day later	(result)				
	54				
					<a href="#">variation</a>
					46 47 48
					<a href="#">variation</a>

Project Committer - technology.foo

Nominate a new committer [\[revert\]](#)

Name:

Email:

Mailing List:

Reason for Nomination:

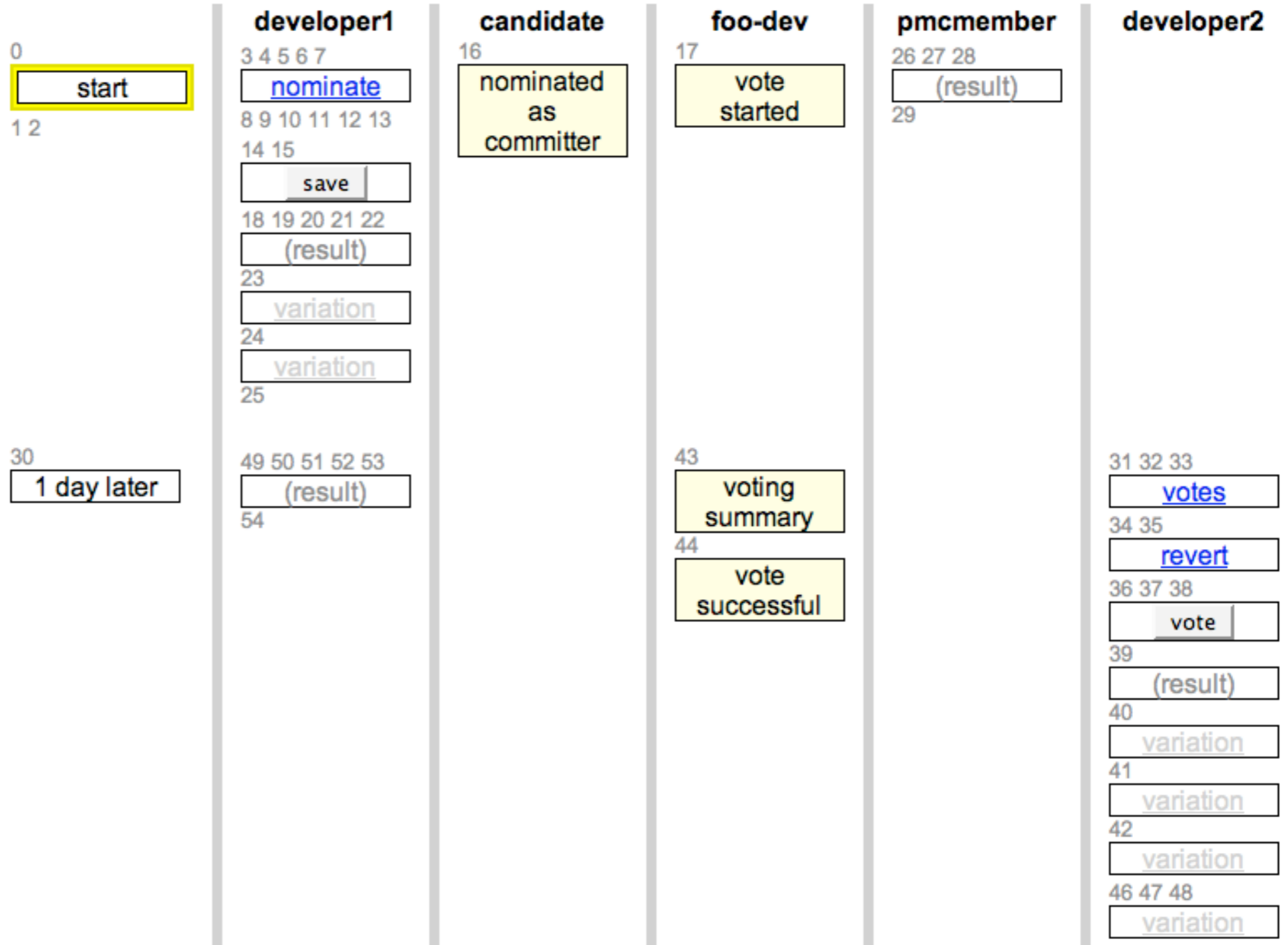
[save](#) [explore](#)

from project\_committer/project\_committer

## Forms

These things mu

# committer election

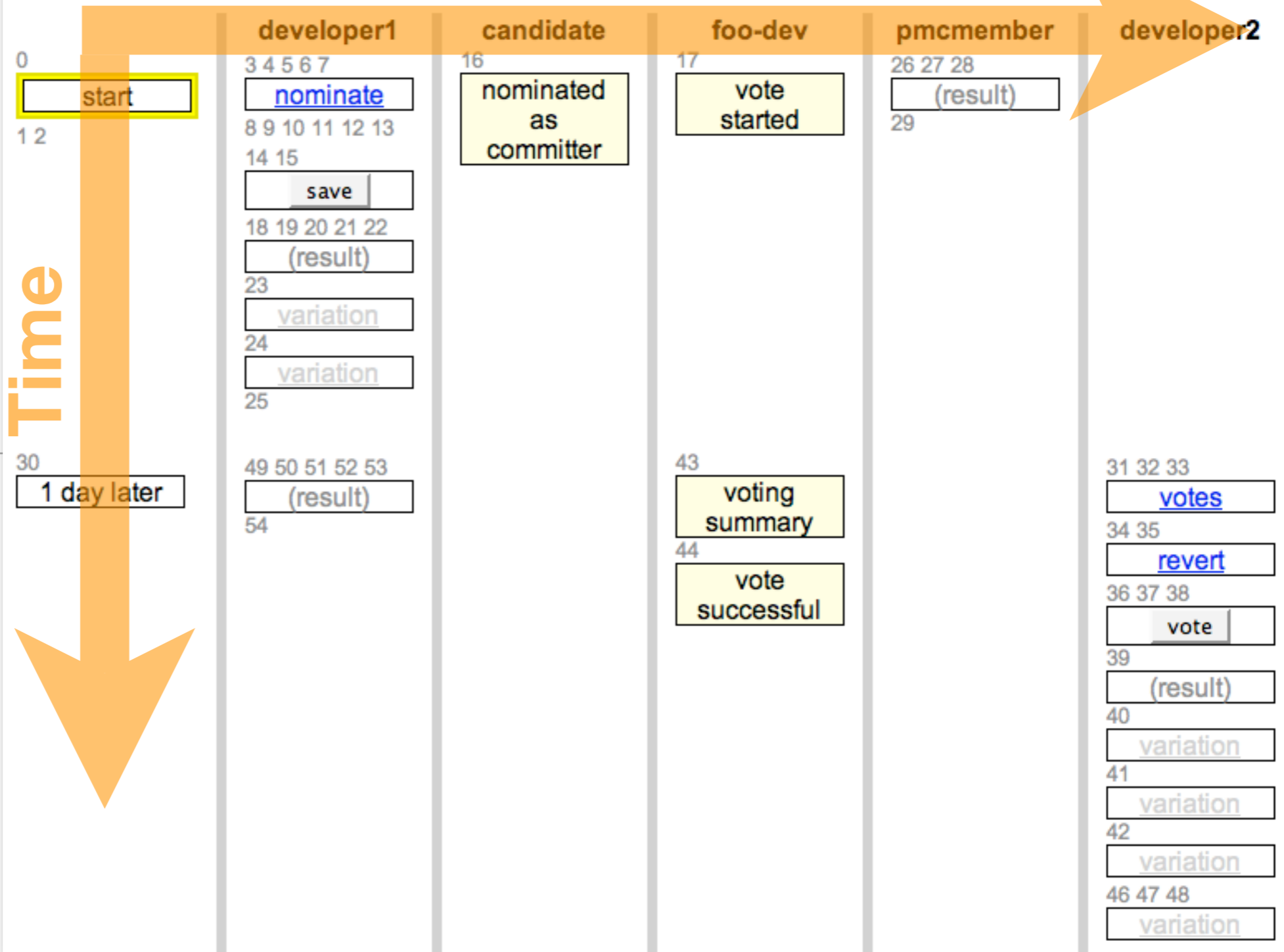


## Forms

These things mu

# committer election

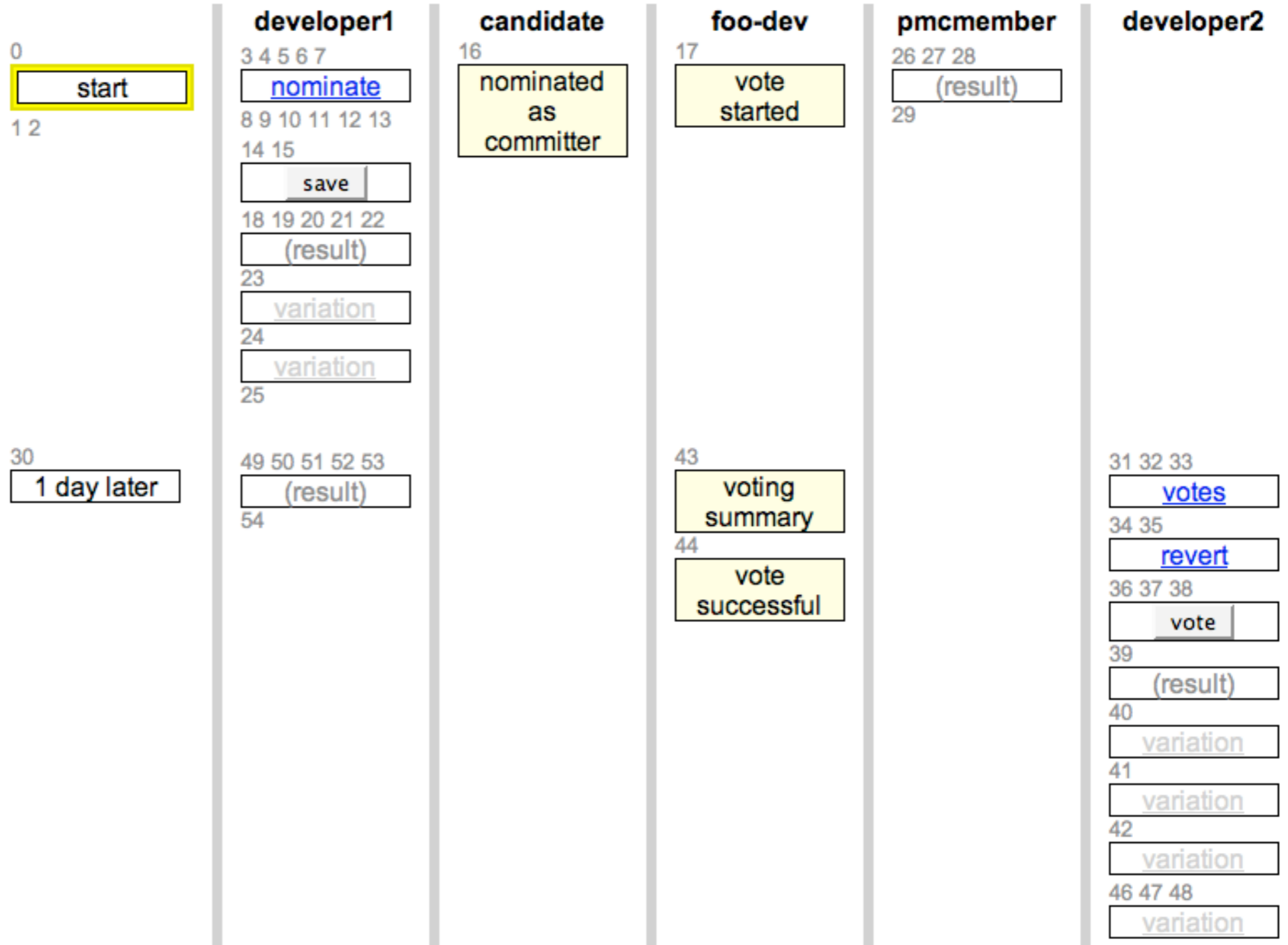
# Space



Forms

These things mu

# committer election



## Forms

These things mu

# committer election



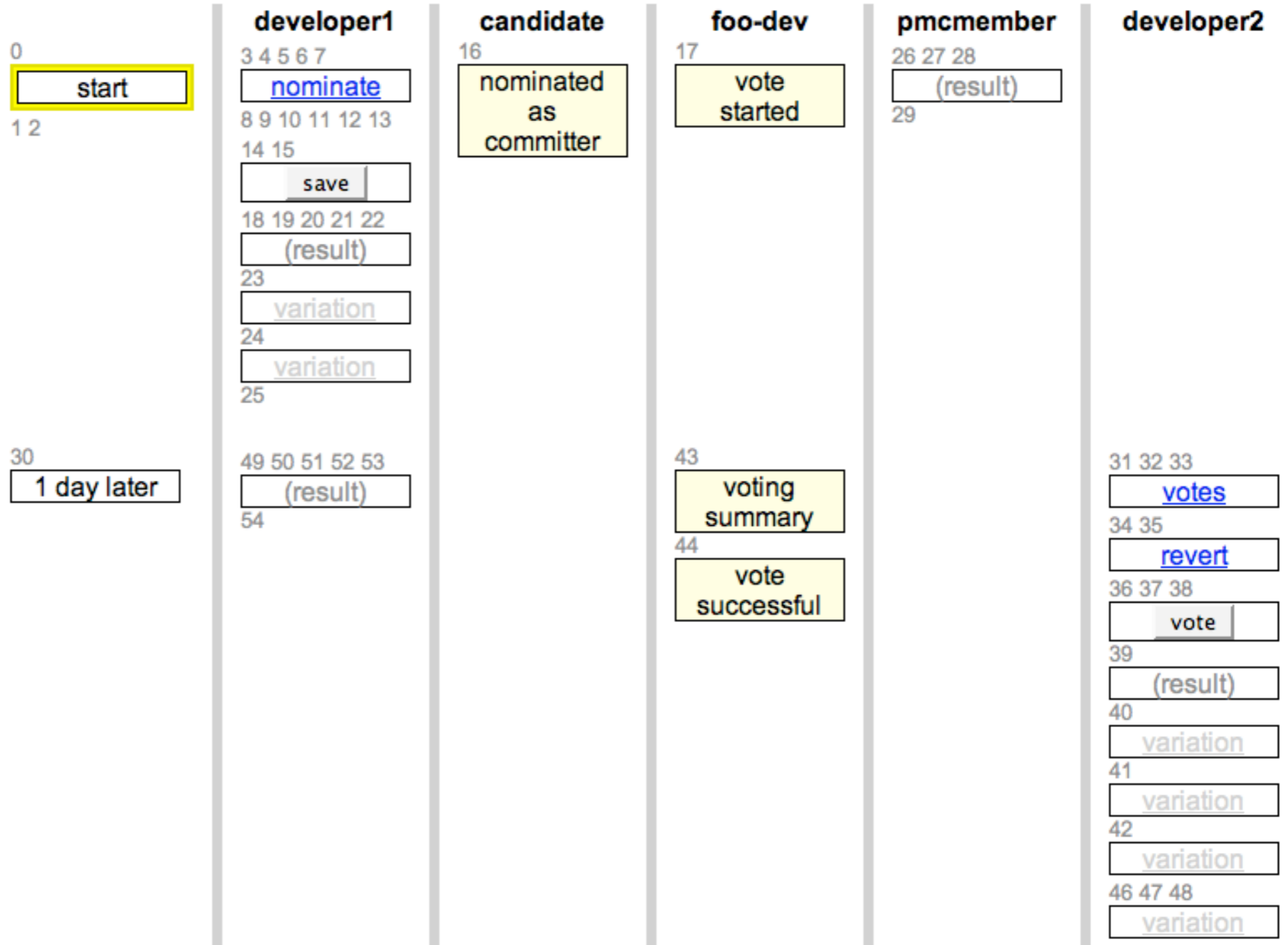
	developer1	candidate	foo-dev	pmcmember	developer2
0					
1	<input type="button" value="start"/>				
2					
3	<input type="button" value="nominate"/>				
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15	<input type="button" value="save"/>				
16		<input type="button" value="nominated as committer"/>			
17			<input type="button" value="vote started"/>		
18					
19					
20					
21					
22	<input type="button" value="(result)"/>				
23	<input type="button" value="variation"/>				
24	<input type="button" value="variation"/>				
25					
26				<input type="button" value="(result)"/>	
27					
28					
29					
30	<input type="button" value="1 day later"/>				
31					<input type="button" value="votes"/>
32					
33					
34					<input type="button" value="revert"/>
35					
36					
37					<input type="button" value="vote"/>
38					
39					<input type="button" value="(result)"/>
40					<input type="button" value="variation"/>
41					<input type="button" value="variation"/>
42					<input type="button" value="variation"/>
43					
44					
45					
46					<input type="button" value="variation"/>
47					
48					



## Forms

These things mu

# committer election



## Forms

These things mu

# committer election



	developer1	candidate	foo-dev	pmcmember	developer2
0	3 4 5 6 7	16	17	26 27 28	
1 2	<a href="#">nominate</a>	nominated	vote	(result)	
	8 9 10 11 12 13				
	14 15				
	<a href="#">save</a>				
	18 19 20 21 22				
	(result)				
	23				
	<a href="#">variation</a>				
	24				
	<a href="#">variation</a>				
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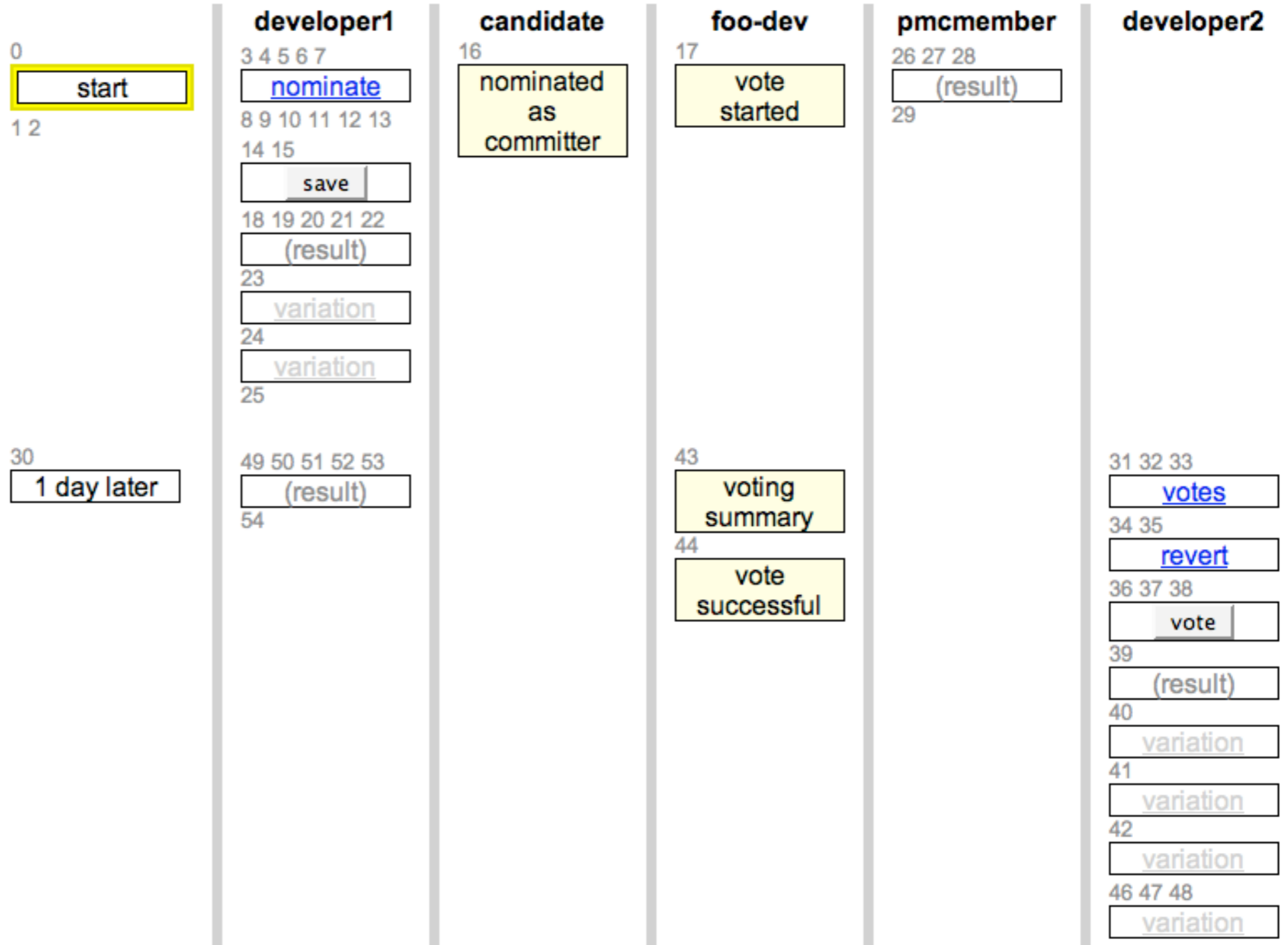
[save](#) [explore](#)

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Forms

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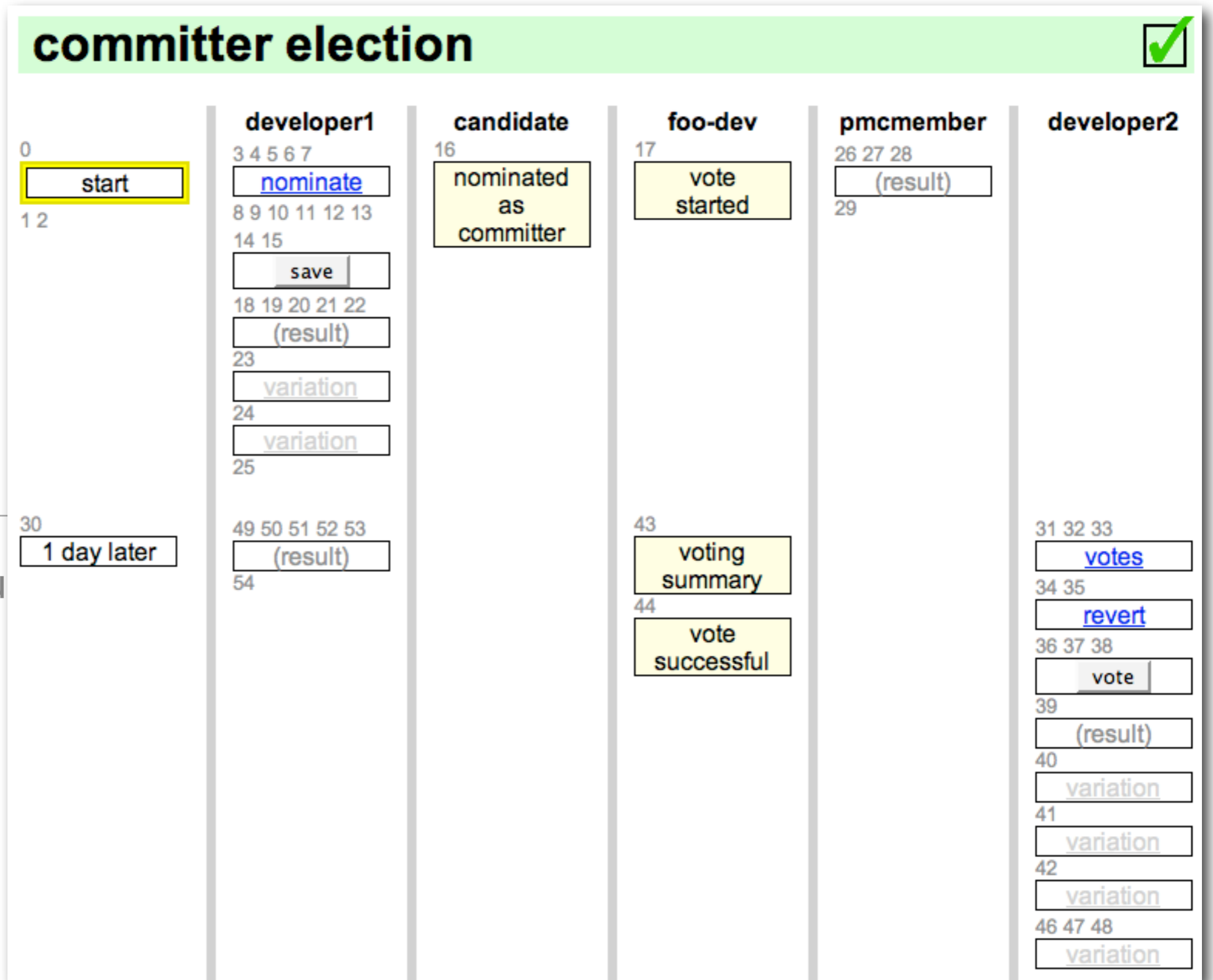


## Forms

These things mu

# Forms

These things mu



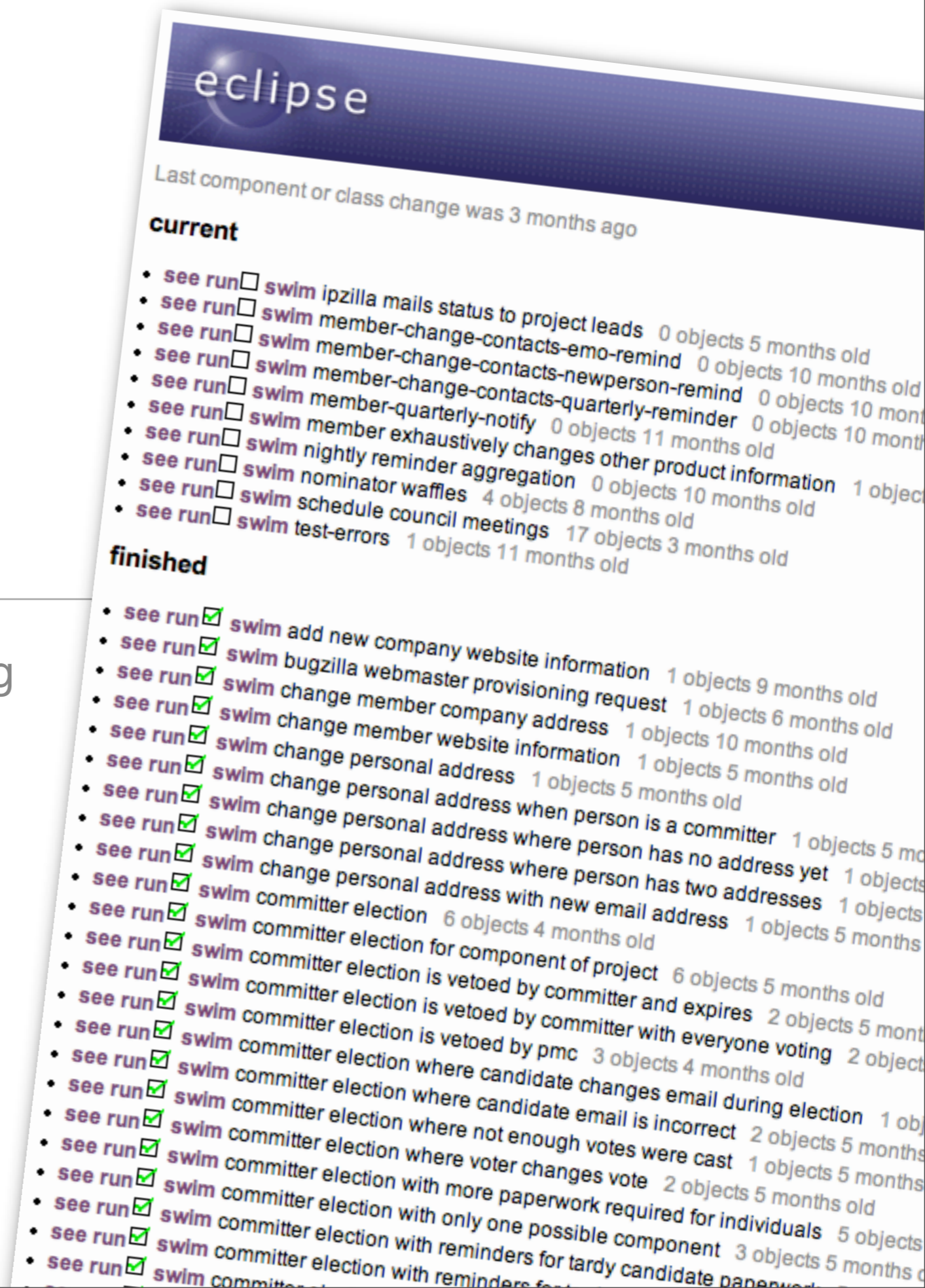
# Test Suites

---

Release to production requires passing a suite of finished tests.

# Test Suites

Release to production requires passing a suite of finished tests.



# Swim as Basis of Conversation

---

Trusted evaluation  
Current configuration  
Comprehensive scope

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Trusted evaluation  
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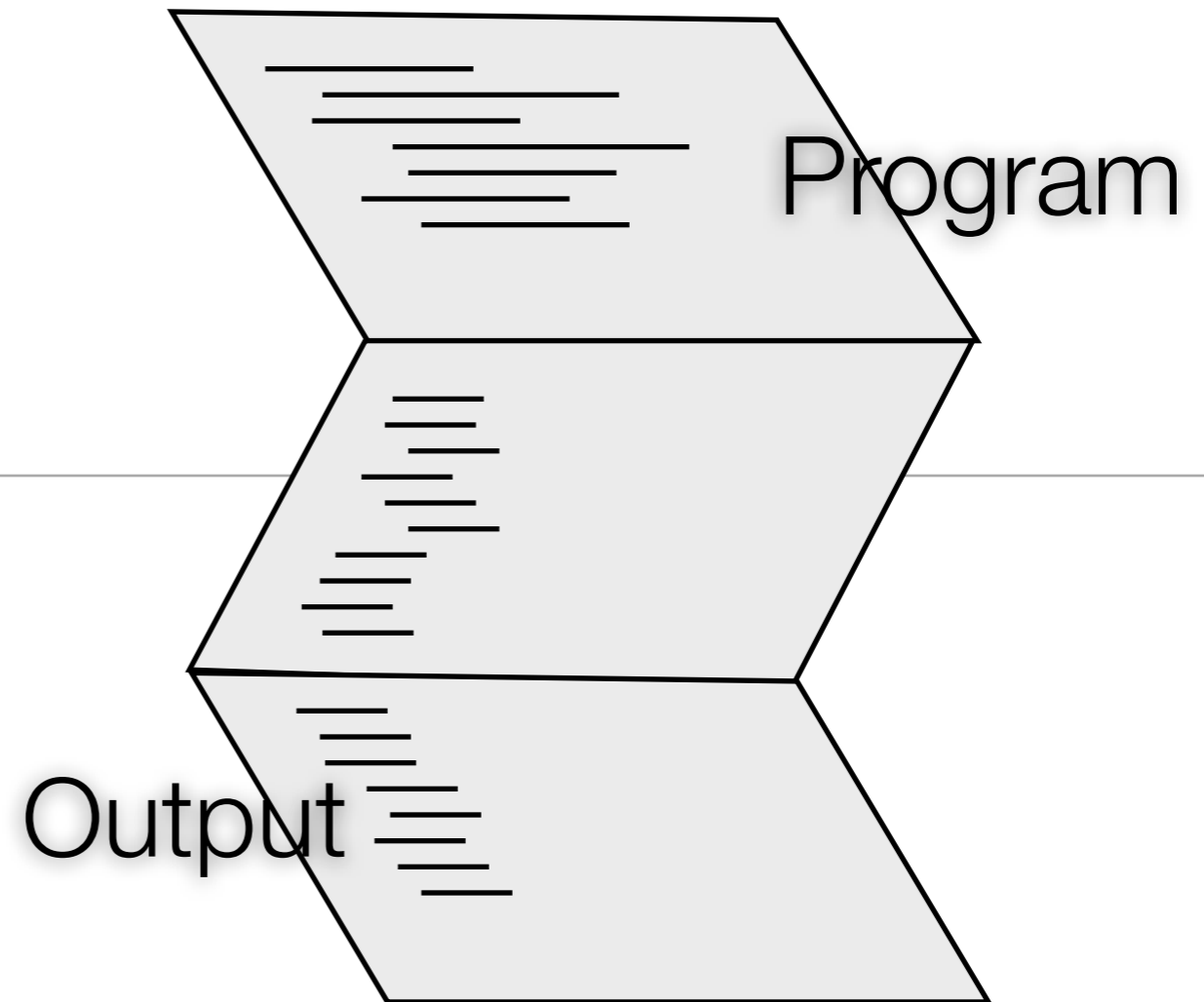
# Output Side Reasoning

---

Thinking while studying the output,  
not the program that produced it

# Output Side Reasoning

Thinking while studying the output, not the program that produced it



# Process Explorer

---

Expanding Swim  
to be basis of  
community

# Process Explorer

Alex Developer Address

Address 1:  [\[revert\]](#)

Address 2:

Address 3:

City:

State/Province:

Postal Code:

Country:  ▼

Phone:

Fax:

Mobile:

Email:

I still work for the same employer:  yes  no

---

Expanding Swim  
to be basis of  
community

# Process Explorer

Alex Developer Address

Address 1:  [revert]

Address 2:

Address 3:

City:

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Expanding Swim  
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Address 3:

City:

State/Province:

Postal Code:

Country:  ▼

Phone:

Fax:

Mobile:

Email:

I still work for the same employer:  yes  no

eclipse **Process Explorer**

You are exploring the **save** action of the **contact\_address** component.

Pressing **save** updates the foundation's database and sends confirmation email to you and the foundation. In the past, these changes have required corresponding directly with the *emo*.

This behavior has been tested in the following use cases:

- **change personal address**
- **change personal address when person is a committer** (2 places)
- **change personal address where person has no address yet** (2 places)
- **change personal address where person has two addresses** (2 places)
- **change personal address with new email address** (3 places)
- **committer election where candidate changes email during election**

# Process Explorer

Expanding Swim to be basis of community

Alex Developer Address

Address 1:  [revert]

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Postal Code:

Country:  ▼

Phone:

Fax:

Mobile:

Email:

I still work for the same employer:  yes  no

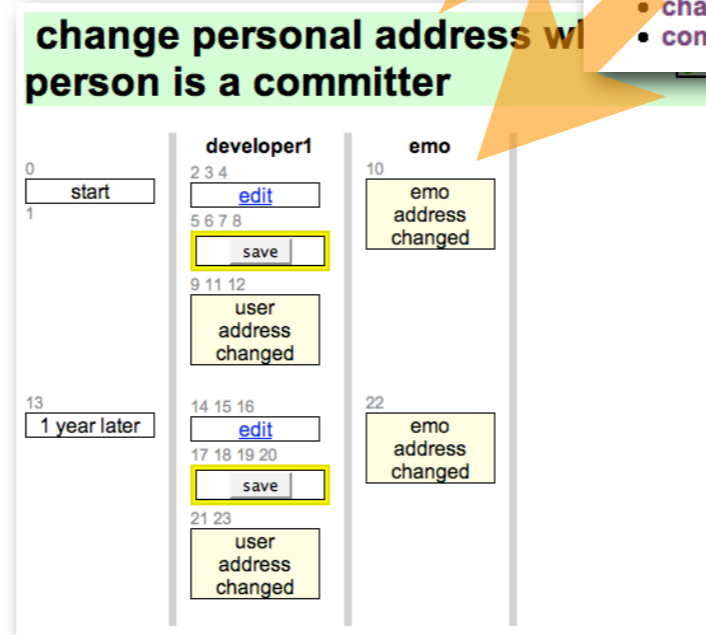
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# Process Explorer

Expanding Swim to be basis of community

Alex Developer Address

Address 1: North [revert]

Address 2:

Address 3:

City: Busytown

State/Province: Oregon

Postal Code: 97204

Country: United States

Phone: 555-1212

Fax:

Mobile:

Email: developer1@example.com

I still work for the same employer:  yes  no

save explore

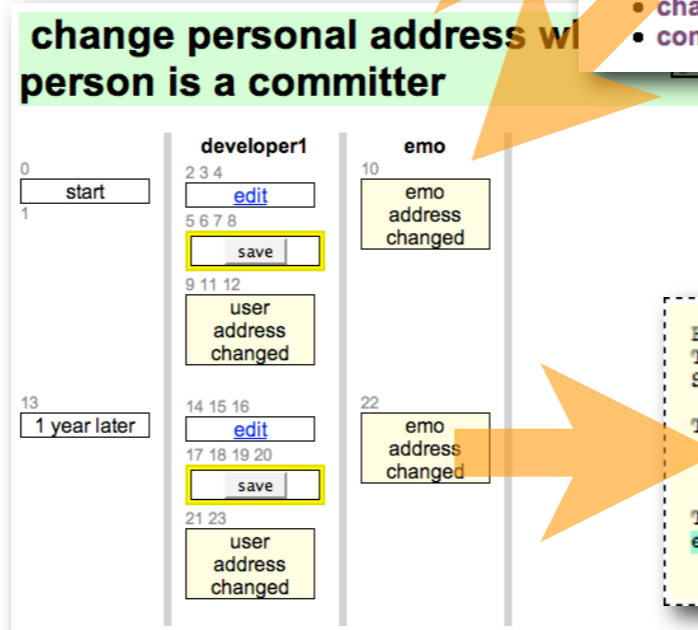
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- committer election where candidate changes email during election



From: developer1@example.com (portal on behalf of Alex Developer)  
To: emo-records@eclipse.org  
Subject: Address change: Alex Developer

The contact address for Alex Developer has changed:  
city : Busytown => Any Town  
state : Oregon => BC

This person is a Committer and confirms that he/she has not changed employers.

# Process Explorer

Expanding Swim to be basis of community



**Alex Developer Address** [revert]

Address 1: North

Address 2:

Address 3:

City: Busytown

State/Province: Oregon

Postal Code: 97204

Country: United States

Phone: 555-1212

Fax:

Mobile:

Email: developer1@example.com

I still work for the same employer:  yes  no

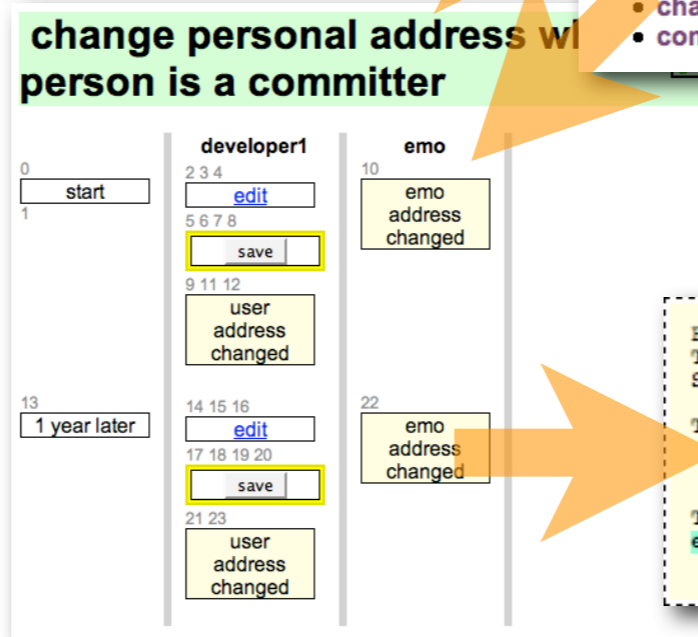
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# Open

---

Is open enough to  
sustain community

## **Wikipedia:**

open: yes

transparent: no

# Open

---

Is open enough to  
sustain community

Open

---

Is open enough to  
sustain community

## **Wikipedia:**

open: yes

transparent: no

## **Eclipse Portal:**

open: yes

transparent: yes

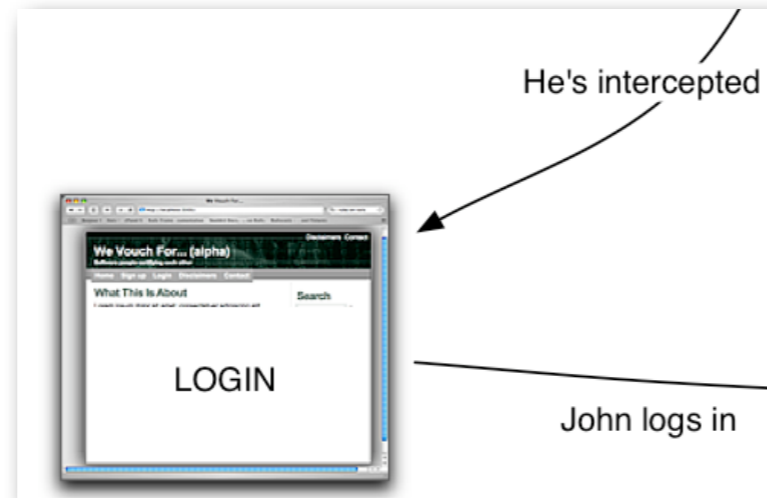
permeable: no

# Graffle

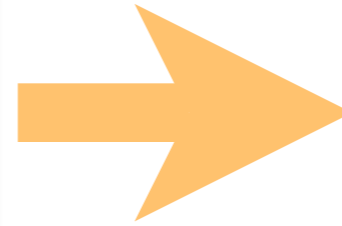
---

Promising experiment  
by Brian Marick

# Graffle



## Graffle

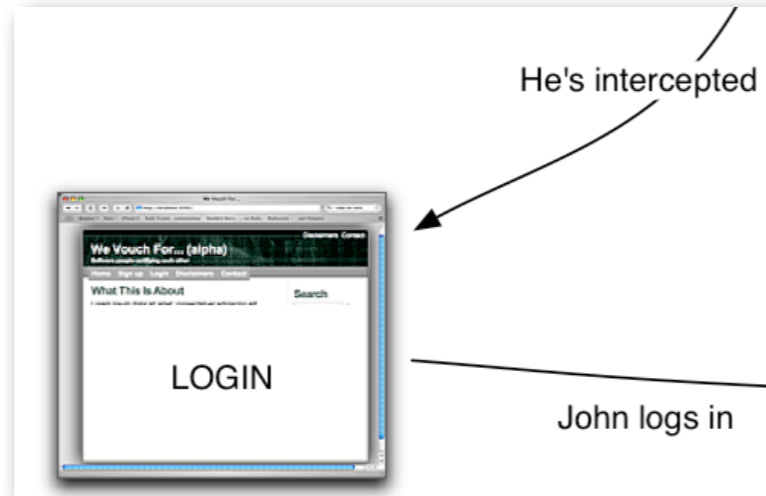


```
Making graffle tests.  
Loaded suite /opt/local/lib/ruby/gems/1.8/gems/rake-  
0.7.3/lib/rake/rake_test_loader  
Started  
.....  
Finished in 0.915512 seconds.  
  
5 tests, 23 assertions, 0 failures, 0 errors
```

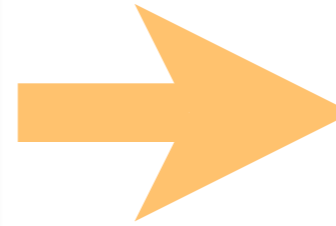
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Promising experiment  
by Brian Marick

# Graffle



## Graffle

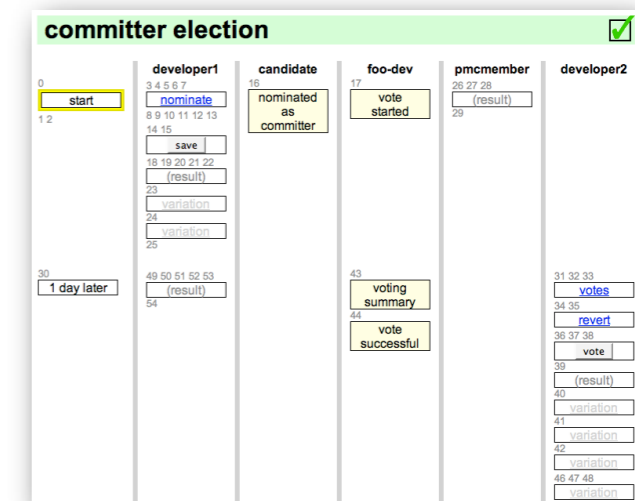
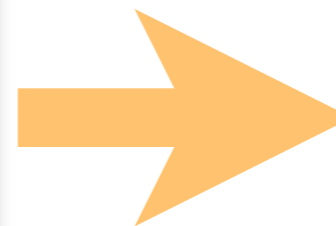


```
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Loaded suite /opt/local/lib/ruby/gems/1.8/gems/rake-  
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Started  
.....  
Finished in 0.915512 seconds.  
  
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# Promising experiment by Brian Marick

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11: enter('name', 'Karl Candidate');  
12: enter('email', 'candidate@example.com');  
13: enter('mailinglist', 'foo-dev@example.com');
```

## Swim



# Crowdware

---

Agile Alliance's  
Functional Testing Visioning Workshop  
Portland, 2007

# Program

## Crowdware

---

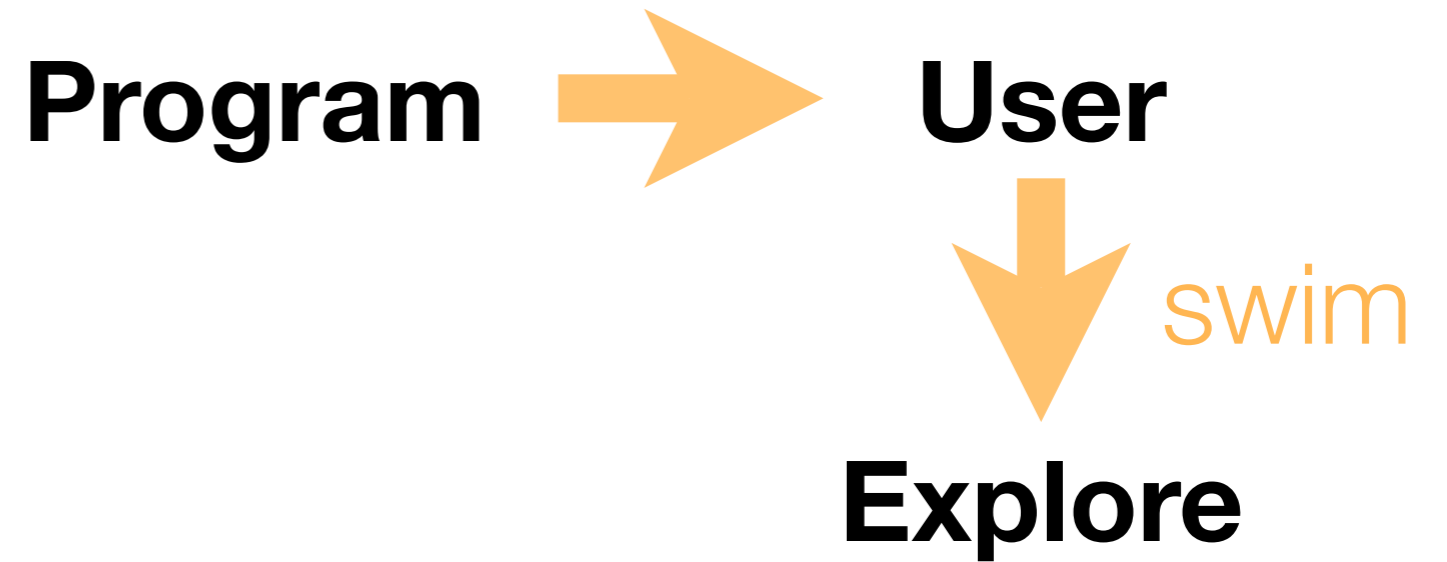
Agile Alliance's  
Functional Testing Visioning Workshop  
Portland, 2007

**Program**  **User**

# Crowdware

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Agile Alliance's  
Functional Testing Visioning Workshop  
Portland, 2007

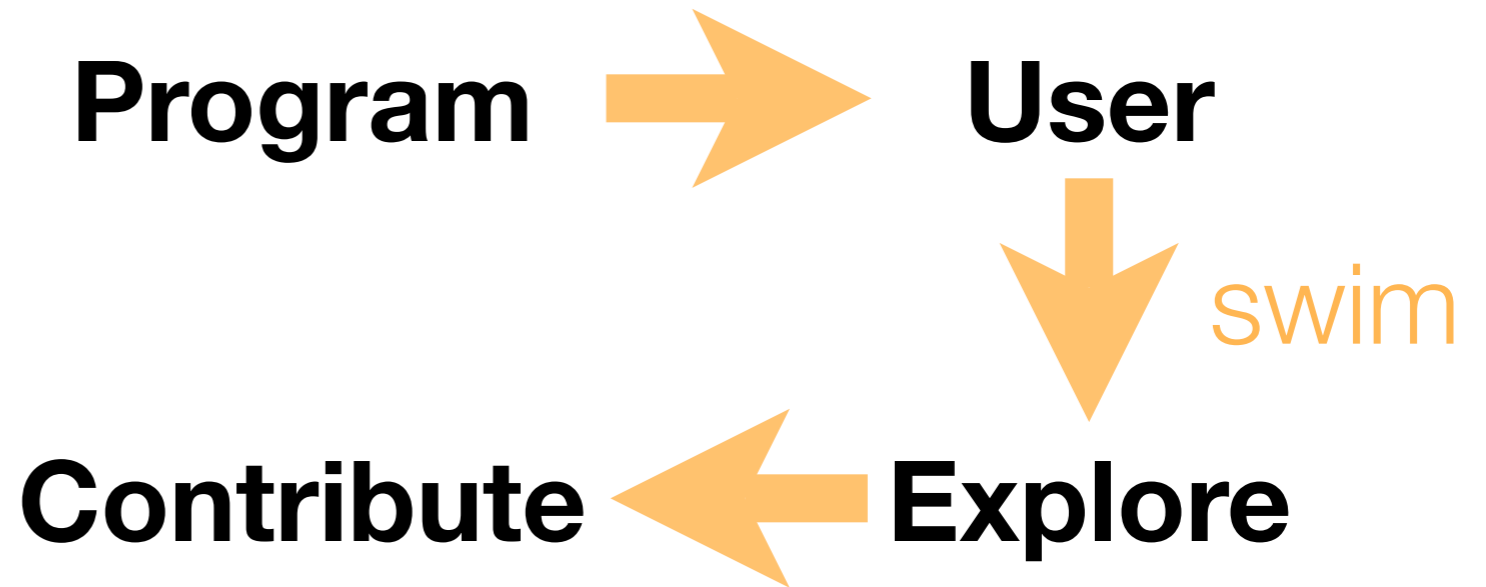


Crowdware

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Portland, 2007

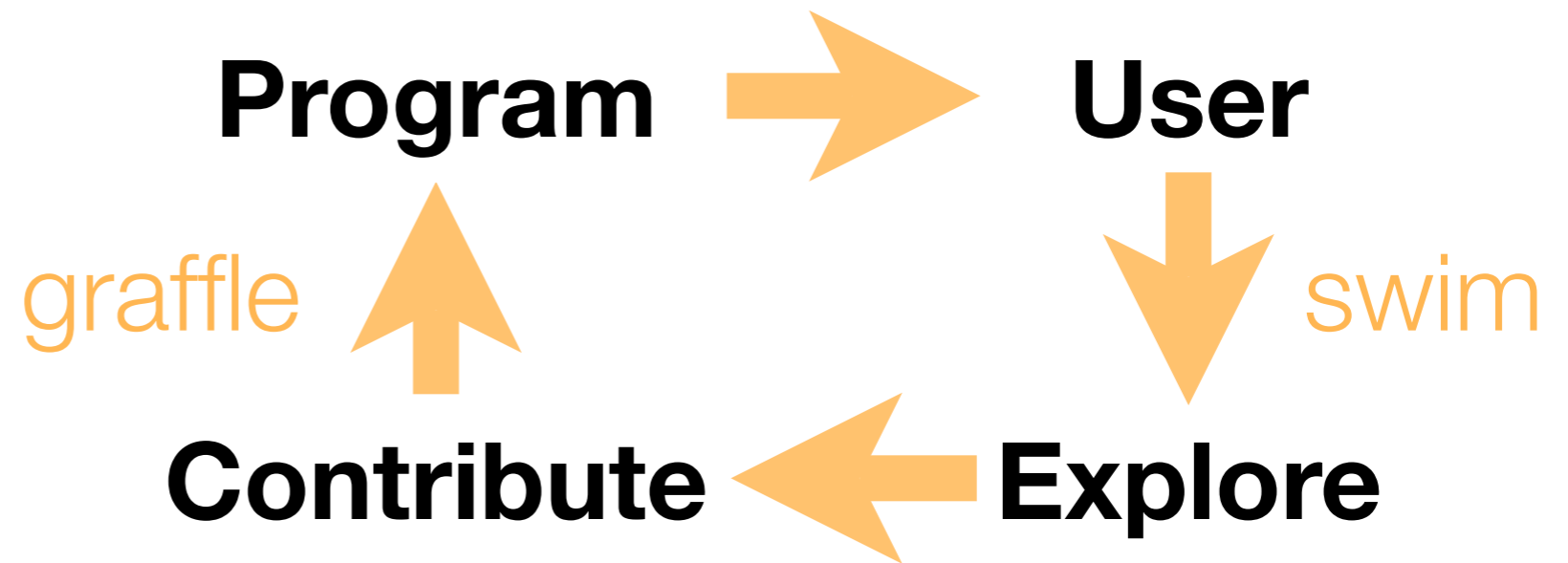
Crowdware



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Portland, 2007

Crowdware



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Agile Alliance's  
Functional Testing Visioning Workshop  
Portland, 2007

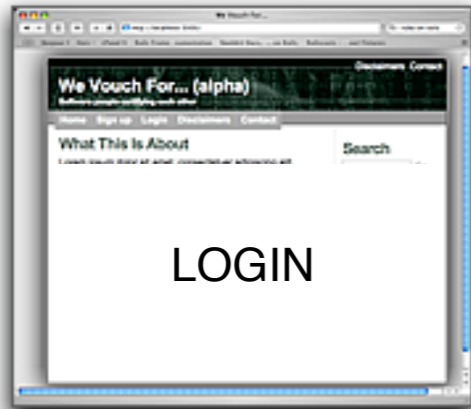
John heads for the certification page for "Ron Jeffries"

He's intercepted

John re-enters URL for "Ron Jeffries"

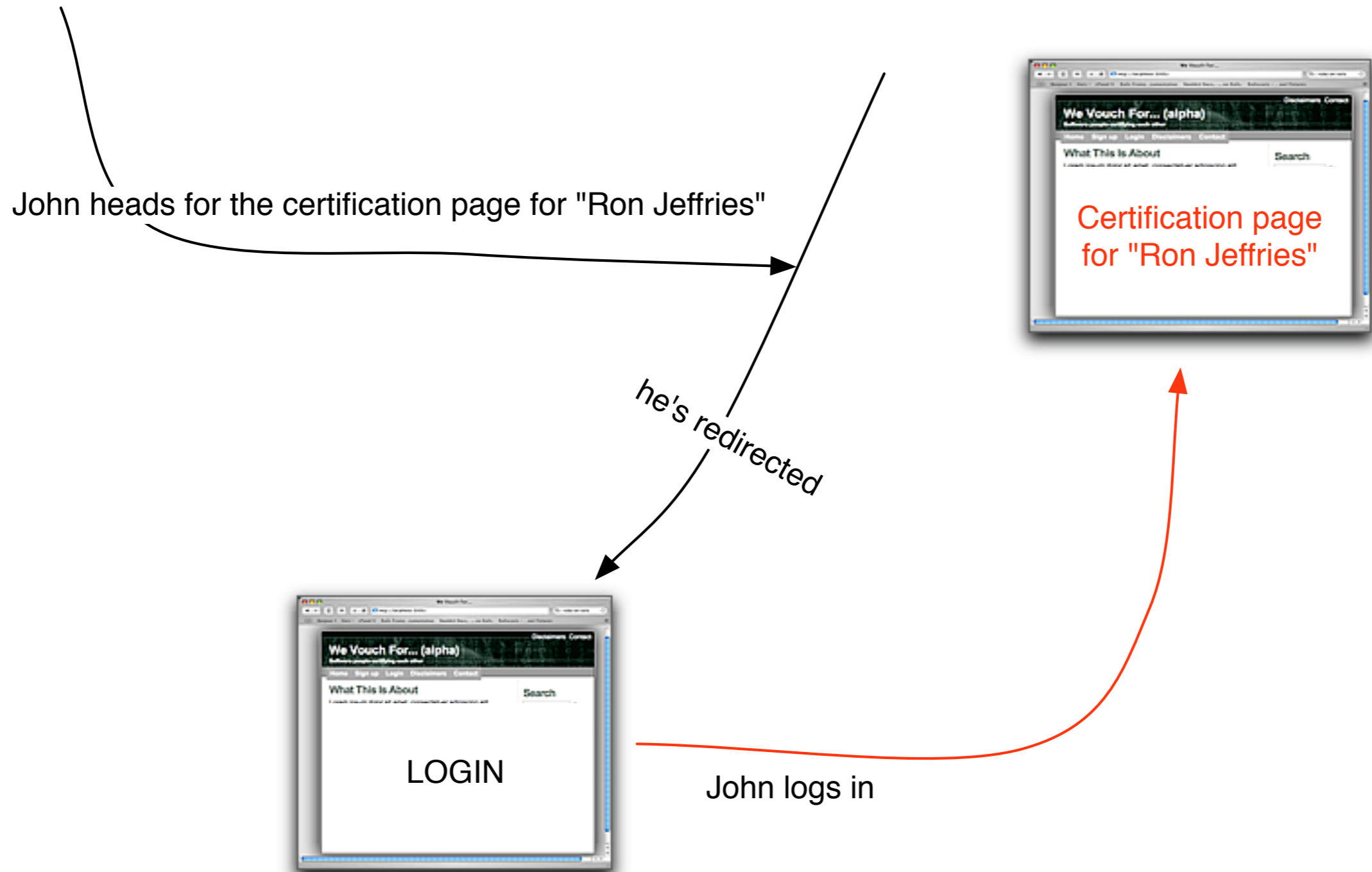
John logs in

Can't the computer do this for me?



# Proposed Login Diversion

As a convenience, if you have to login, you still get to the page you wanted. You don't end up on your own page and have to redo the original action.



# Conclusion

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Trust from repeated positive outcome

Visualizing use cases with swim

Output side reasoning across space and time

Open, transparent and permeable

Graffle as complement to swim

Swim/Graffle as basis for trusted programs