# Creating a Tool for Authoring Interactive Narrative using *Comme il Faut*

## **Comme il Faut**

Comme il Faut (CiF) is a social AI system which allows for the authoring of social situations where Social Games can be played. CiF maintains a history of social games, facts, character beliefs, and psychological states. Social Game - multi-character social interactions designed to modify the current state existing in the game world

Social Fact - notion of any interaction or event that occurs in and changes the game world

# **Authoring Tool**

### Purpose

Authoring Social Games is a time-consuming process. With the tool, the authoring of these games becomes less tedious, easier to visualize, and minimizes the time spent hard-coding Social Games.

Gives non-coders the opportunity to author their own social environment

### **UI Design**

•Easy to navigate ·Layout designed with Adobe Flash Builder 4

#### **Data Flow**

·Uses the *CiF* library to build working data sets •Exports into a Social Game

### Code to GUI

11 白 12 白	<pre><s:vgroup height="720" left="5" top="5" width="780"> </s:vgroup></pre>	Game Summary Preco	nditions Influence Rule Set Effects	Authoring Performance Authoring	
12 -	<s:hgroup height="5%" width="100%"> <s:label text="Name of Instantiation:"></s:label></s:hgroup>			-	
14	<pre><s:textinput id="nameInput" width="504"></s:textinput></pre>	Performance Realization S	String This is the default performance i	realization string	Add to Effect
15	<pre><s:button )<="" click="addInstantiation" id="addBtn" label="Add" pre=""></s:button></pre>	Sectoriff othing:	Effect Condition:	Social Change:	Change type:
16	<pre>states: label="Undate" id="undateBtn"/&gt;</pre>				Change type.
17 -		trait	trait(responder, confidence)	coolNetwork(initiator, responder) + 7	trait
18 🖸	<s:hgroup height="100%" width="100%"></s:hgroup>	network	coolNetwork(responder, other) > 7	status(initiator, other, desperate)	network
19 6	<s:vgroup height="100%"></s:vgroup>				
20	<s:label text="Instantiation and Name"></s:label>	status		trait(initiator, heartless)	status
21 🗇	<s:hgroup height="100%"></s:hgroup>	CKB		status(initiator, responder, has crush)	СКВ
22 0	<s:vgroup></s:vgroup>	SFDBLabel		ckb(initiator, likes, responder, likes, lame)	SFDBLabel
23	<s:button id="moveUpBtn" label="Up"></s:button>	SEDELADEI		ckb(initiator, likes, responder, likes, rame)	SEDBLaber
24	<s:button id="moveDownBtn" label="Down"></s:button>	relationship			relationship
25	<s:button id="deleteBtn" label="-"></s:button>				
26 -		- J	]		
27	<s:list height="100%&lt;/td&gt;&lt;td&gt;" id="instantiationNameList" width="100%"></s:list>				
28 -		O-Heeph 1-			
29 -		🔵 Reject			
30 🖨	<s:vgroup height="100%" width="100%"></s:vgroup>				
31 0	<s:hgroup width="100%"></s:hgroup>				Save Up
32 0	<s:vgroup width="100%"></s:vgroup>	NETWORK PRE		CKB PREDICATE EDIT	
33 T	<s:label text="Initiator Dialog"></s:label>	Circl Dalar		First Dela:	
34	<s:textarea 100%"="" id="initiatorDialog" width="100&lt;/td&gt;&lt;td&gt;First Role:&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;First Role:&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;35 -&lt;/td&gt;&lt;td&gt;&lt;/s:VGroup&gt;&lt;/td&gt;&lt;td&gt;responder 👻&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;initiator 👻&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;36 -&lt;/td&gt;&lt;td&gt;&lt;/s:HGroup&gt;&lt;/td&gt;&lt;td&gt;Second Role:&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;37 🖨&lt;/td&gt;&lt;td&gt;&lt;s:HGroup width="></s:textarea>			dislikes 👻	
38 6	<s:vgroup width="100%"></s:vgroup>	other 👻		Second Role:	
39 T		Network:			
40	<pre><s:label text="Responder Dialog"></s:label> <s:textarea <="" id="responderDialog" s:vgroup="" width="100"></s:textarea></pre>	" height="50"/>	-	responder 👻	
41 -		Comparator:	-	likes	
42 -					
43 🖨	<s:hgroup width="100%"></s:hgroup>	Weight 7		CKB Truth: bad ass 🚽	
44 0	<s:vgroup width="100%"></s:vgroup>	Ţ			
45 T	<s:label text="Other Dialog"></s:label>	Not		🔲 SFDB Er lame	
46	<s:textarea h<="" id="otherDialog" td="" width="100%"><td>eight="50" there of</td><td><b>A</b></td><td>romantic</td><td></td></s:textarea>	eight="50" there of	<b>A</b>	romantic	
47 -		SPDB Entry. 0	-	aross	
48 -				gross	
49 -				funny	
50 -				bad ass	
51	<mx:hrule width="100%"></mx:hrule>				
52 🖨	<s:hgroup height="100%" left="1" top="5" width="100%"></s:hgroup>			mean 🔻	
53 🗗	<s:vgroup width="33.3%"></s:vgroup>				
54 T	<s:dropdownlist id="initiatorCharSelect" width="100&lt;/td&gt;&lt;td&gt;\$"></s:dropdownlist>				
55	<s:textinput 100%"="" text="This is where the Animator SWC g&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;width="></s:textinput>				
6 -				I	
57 6	<s:vgroup width="33.3%"></s:vgroup>				
58 T	<s:dropdownlist id="responderCharSelect" width="100&lt;/td&gt;&lt;td&gt;\$"></s:dropdownlist>				
50	As TextInnut text="This is where the Animator SNC m				

# expressive intelligences tudio

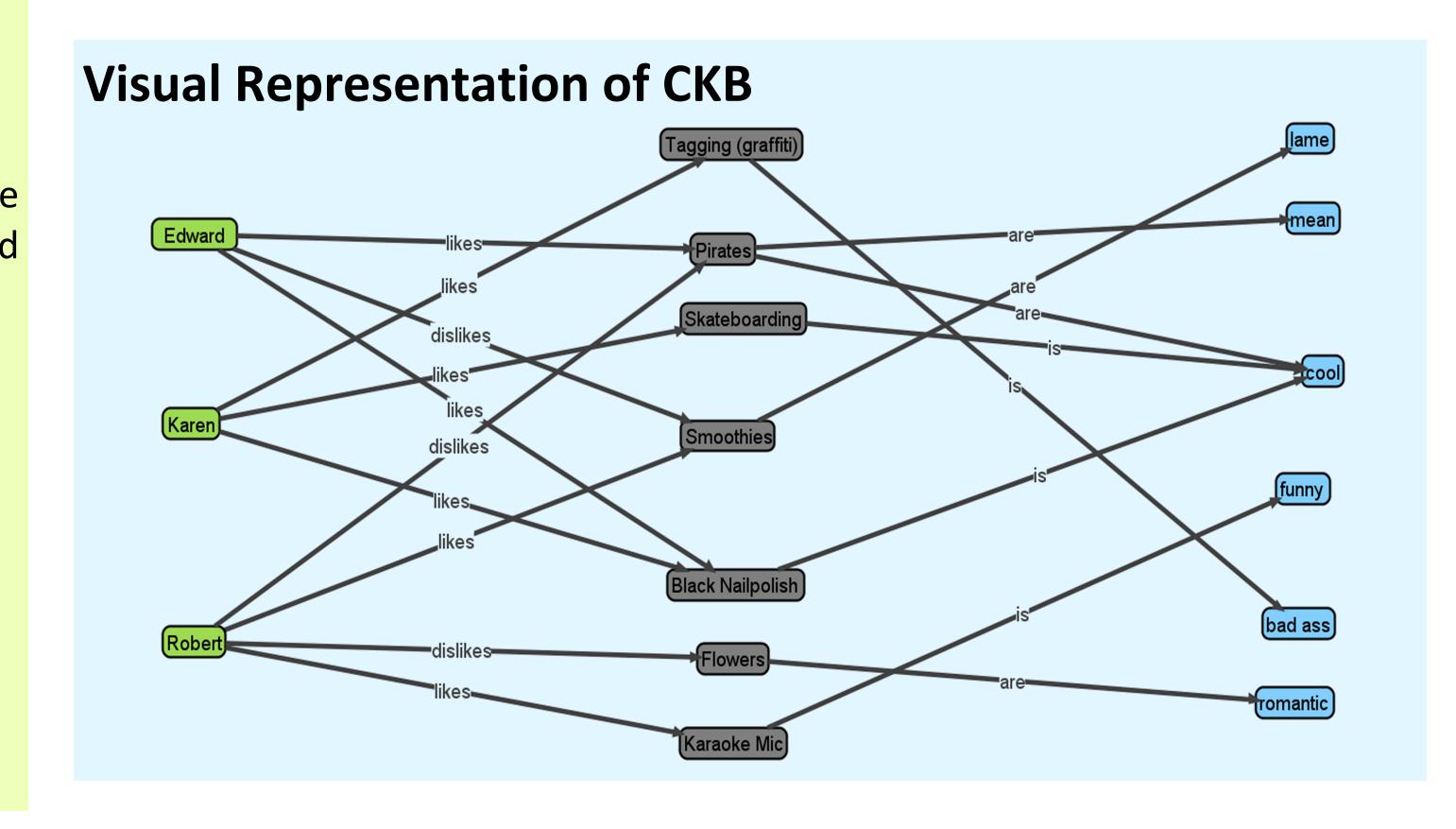
# Ryan Andonian, Travis Brown, Devon Wyland {randonia, trhbrown, dwyland} @ ucsc.edu

### **Cultural Knowledge Base**

#### Subjectivity •Characters "like" and "dislike" specific activities and objects Zeitgeist

•The CKB contains the accepted labels on these activities and objects Functionality

•Allows characters to relate to and form opinions about others by linking their subjective beliefs to the zeitgeist, which influences the available in game interactions



# **Social Facts Database**

### Contents

•Contains the complete history of Social Games

- List of all characters involved
- Relative time-line
- List of topics brought up
- List of choices made

### Functionality

•Allows characters to "remember" events and Social Game outcomes •Past events influence characters' available decisions

# **Faculty and Graduate Guidance**

PhDs: Joshua McCoy, Ben Samuel, Brandon Tearse, Mike Treanor Faculty: Michael Mateas, Noah Wardrip-Fruin

### **Unit Testing**

#### Purpose

•To test every unit operation of class functions •Higher level functions (constructors, accessors, getters and setters) need to be tested, while primitive types can be trusted to work Functionality

•Provides us with regression testing, as the unit tests can be checked at any point of the design process.

•Able to compare our expected output with what our functions actually output.

### **Unit Testing Work Flow**

Test Rules Runner Application

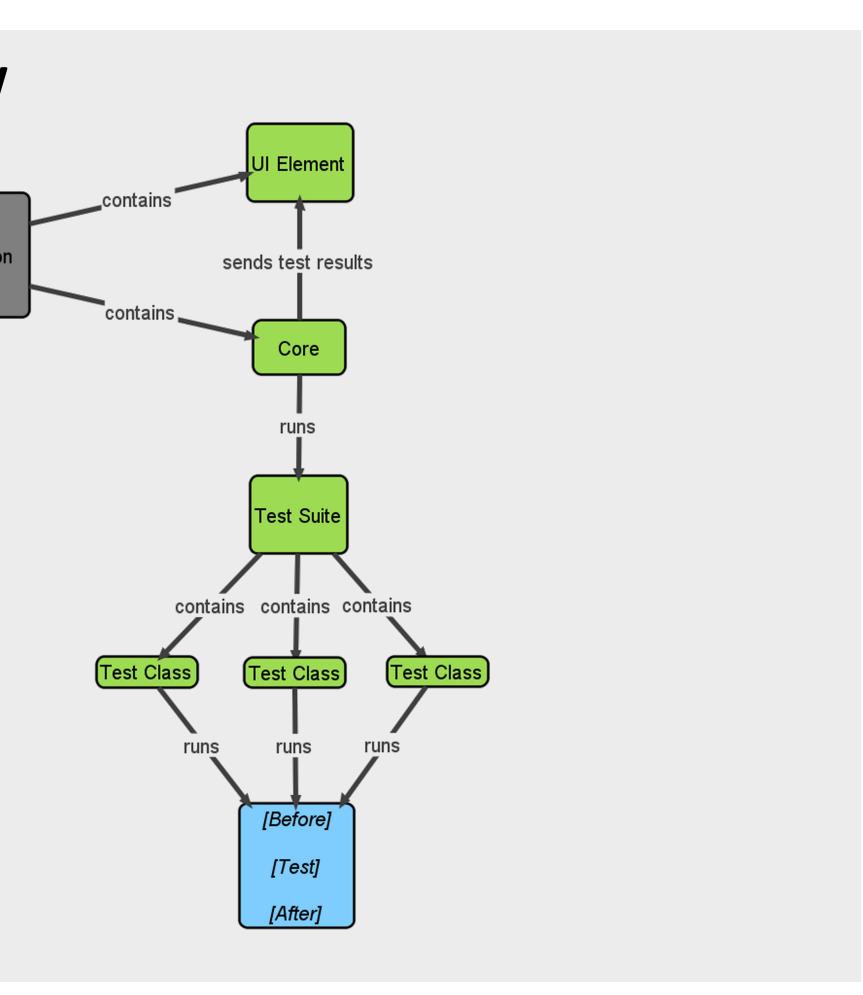
# XML

#### Parsing

•*CiF*'s social games are represented as XML files. In order to use an XML file in the authoring tool, it must be parsed to extract information. **Authoring Tool** 

•The authoring tool uses the parsed XML to manipulate the social game. Once complete, the updated social game is ready to be exported. Output

•Output is generated in XML structure, ready to be used by *CiF*.



# UC Santa Cruz