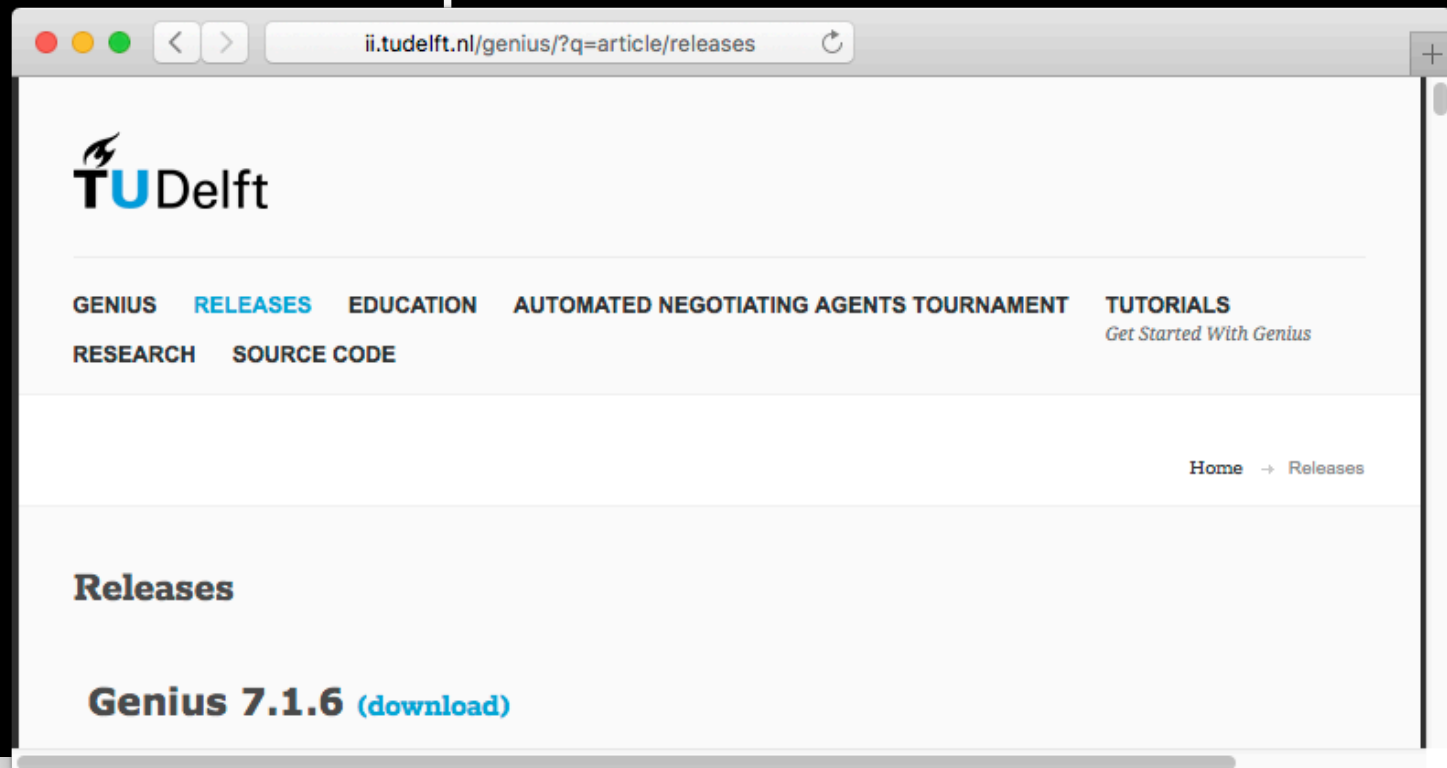


Using Genius

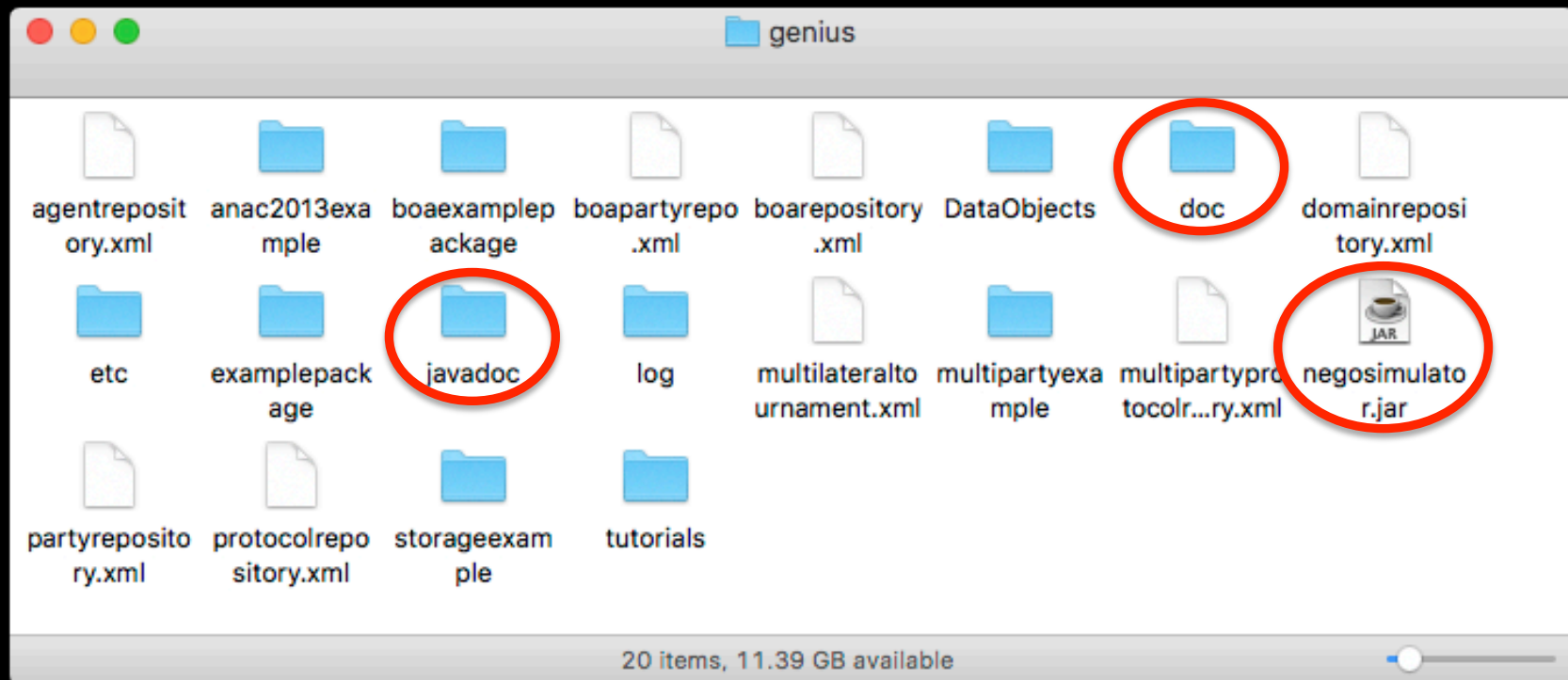
Download Genius

- Go to website: <http://ii.tudelft.nl/genius/>
- Click Releases
- Download & unzip latest version



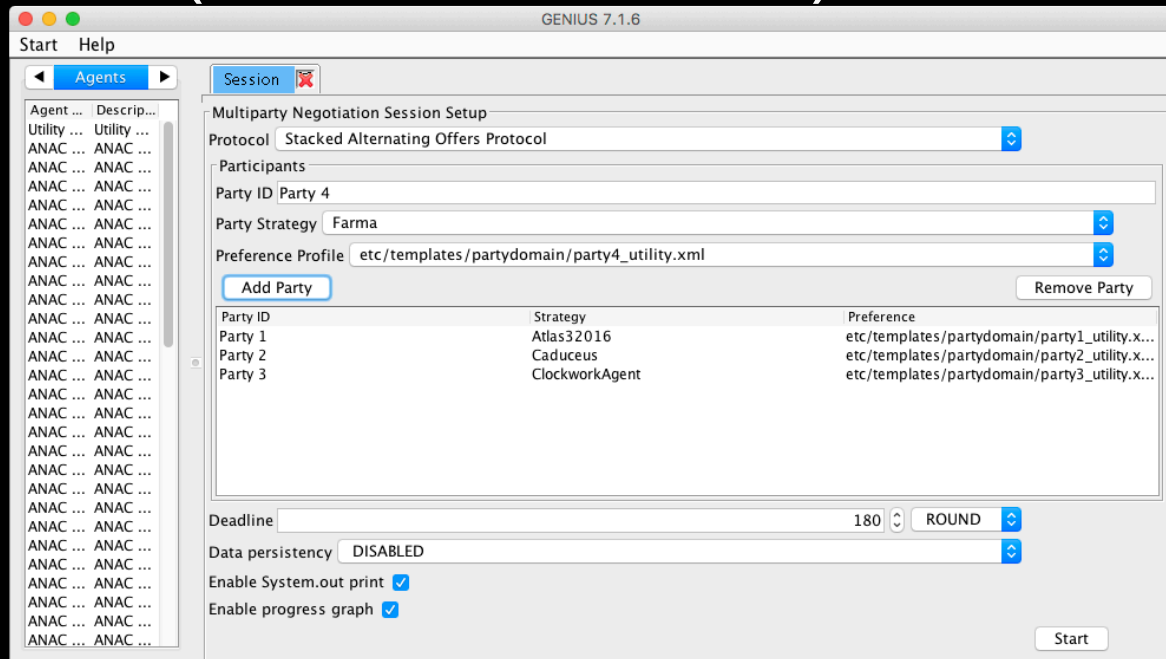
Start Genius

- Just double click the JAR
- Use the documentation in doc/
- Javadocs in javadoc/

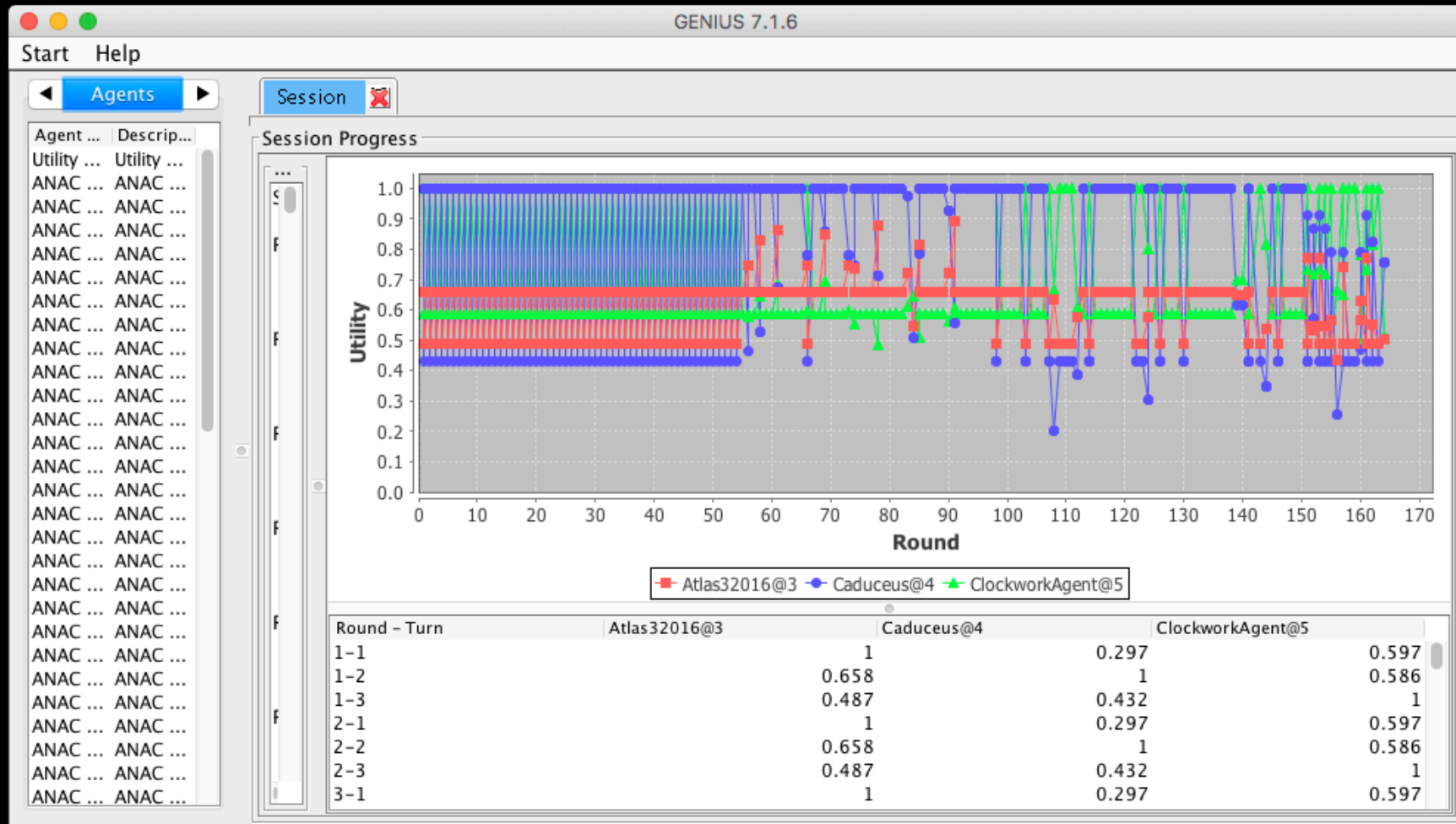


Run a Single Negotiation

- Start Multi-Party Negotiation
- Add Parties
- Set Deadline Type (Round/Time)
- Set Max duration (rounds/seconds)
- Start



Single Run output



Log Files

Text file in Log-Session_20170906-131853 XML and csv in log directory

Csv contains – round, turn, time, offer etc

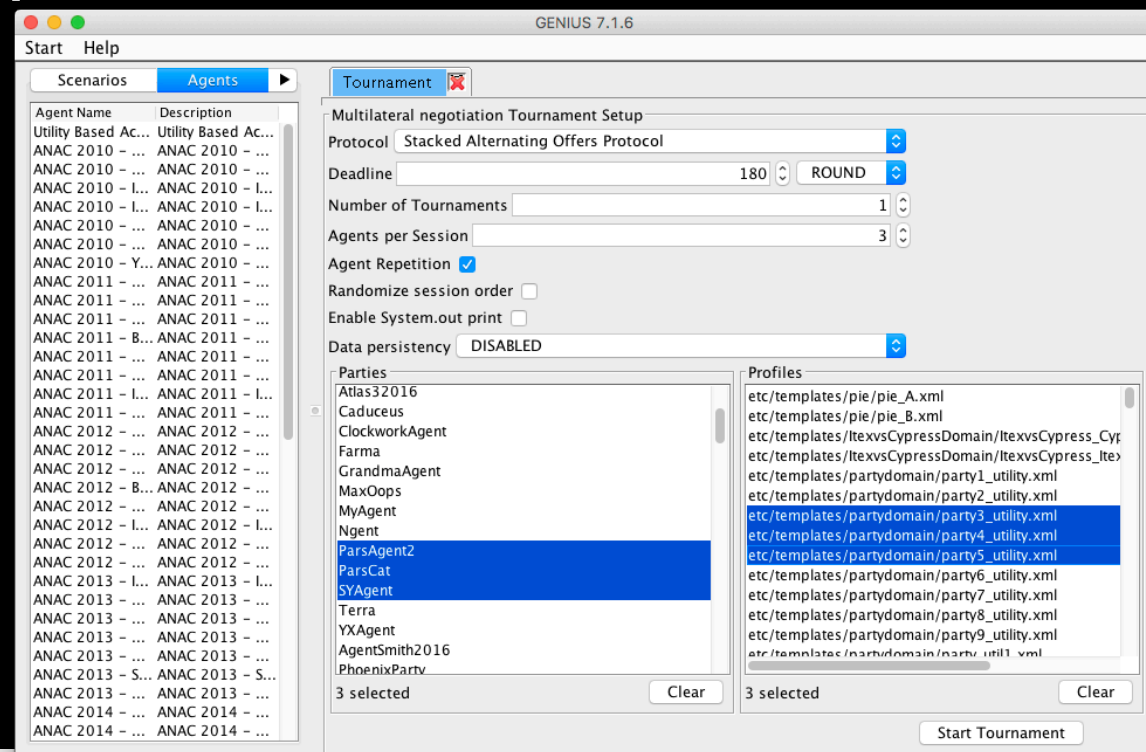
XML contains final outcome details

1,1,0.00552,ParsAgent@18,(Offer bid:Bid[Food: Handmade Food, Drinks: Handmade Cocktails, Location: Party Room, Invitations: Custom, Printed, Music: MP3, Cleanup: Water and Soap,])

1,2,0.00552,AresParty@19,(Offer bid:Bid[Food: Chips and Nuts, Drinks: Non-Alcoholic, Location: Party Tent, Invitations: Plain, Music: Band, Cleanup: Hired Help,])

Run tournament

- Start Multi-Party Tournament
- Select parties and profiles
- Change other params as needed



Multiparty tournament Output

- File: tournament-20170906-132337-party_domain.log.XML, and also csv
- Round shows total #rounds used
- Utility1..3 show utilities of accepted bid
- Dis.Util. shows discounted utils
- See manual for all details

GENIUS 7.1.6

Start Help

Scenarios Agents Tournament

Agent Name	Description	Run time (s)	Round	Exception	deadline	Agreement	Discounted	#agreeing	min.util.	max.util.	Dist. to Par...	Dist. to Nash	Social Welf...	Agent 1	Agent 2	Agent 3	Utility 1	Utility 2	Utility 3	Disc. Util. 1	Disc. Util. 2	Disc. Util. 3	Profile 1	Profile 2	Profile 3
ANAC 2010 - ...	ANAC 2010 - ...	0.517	145		180rounds	Yes	No	3	0.73809	0.75834	0.11916	0.24082	2.25317	ParsCat@20	ParsCat@21	ParsCat@22	0.756741...	0.7380946	0.758336...	0.756741...	0.7380946	0.758336...	party3_util...	party4_util...	party5_util...
ANAC 2010 - ...	ANAC 2010 - ...	0.898	169		180rounds	Yes	No	3	0.67185	0.98218	0.00000	0.33392	2.35641	SYAgent@23	ParsCat@24	ParsCat@25	0.982183...	0.702380...	0.671849...	0.982183...	0.702380...	0.671849...	party3_util...	party4_util...	party5_util...
ANAC 2010 - L...	ANAC 2010 - L...	5.894	139		180rounds	Yes	No	3	0.75000	0.86533	0.03067	0.22352	2.46237	ParsAgent...	ParsCat@27	ParsCat@28	0.847040...	0.749999...	0.865334...	0.847040...	0.749999...	0.865334...	party3_util...	party4_util...	party5_util...
ANAC 2010 - L...	ANAC 2010 - L...	1.562	166		180rounds	Yes	No	3	0.80547	0.92857	0.03755	0.03755	2.54674	ParsCat@29	SYAgent@30	ParsCat@31	0.812695...	0.9285706	0.805473...	0.812695...	0.9285706	0.805473...	party3_util...	party4_util...	party5_util...
ANAC 2010 - ...	ANAC 2010 - ...	1.000	181		180rounds	No	No	1	0.00000	0.00000	1.24714	1.50295	0.00000	SYAgent@32	SYAgent@33	ParsCat@34	0.0	0.0	0.0	0.0	0.0	0.0	party3_util...	party4_util...	party5_util...
ANAC 2010 - Y...	ANAC 2010 - ...	6.036	145		180rounds	Yes	No	3	0.80594	0.96428	0.00000	0.00000	2.59452	ParsAgent...	SYAgent@36	ParsCat@37	0.824298...	0.964284...	0.805940...	0.824298...	0.964284...	0.805940...	party3_util...	party4_util...	party5_util...
ANAC 2011 - ...	ANAC 2011 - ...	184.768	148		180rounds	Yes	No	3	0.77381	0.86638	0.00000	0.20398	2.50576	ParsCat@38	ParsAgent...	ParsCat@40	0.866379...	0.773808...	0.865567...	0.866379...	0.773808...	0.865567...	party3_util...	party4_util...	party5_util...

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Create agent with Eclipse

Eclipse is useful to debug your agent.

- Download and install Eclipse (Java Dev)
- Make Eclipse java project
- Copy Genius into your workspace
- Add negosimulator.jar to classpath
- Copy example agent into src/
- Edit your agent name (and the rest)

All details are in assignment document

Java - AI2015GroupNAssignment/src/multipartyexample/Group3.java - Eclipse - /Users/wouter/Desktop/ff

Package Explorer

- AI2015GroupNAssignment
 - src
 - multipartyexample
 - Group3.java
 - JRE System Library [JavaSE-1.7]
 - Referenced Libraries
 - agentrepository.xml
 - boarepository.xml
 - domainrepository.xml
 - multilateraltournament.xml
 - multipartyprotocolrepository.xml
 - negosimulator.jar
 - partyrepository.xml
 - protocolrepository.xml

Group3.java

```
1 package multipartyexample;
2
3 import java.util.List;
4
5
6
7
8
9
10 /**
11  * This is your negotiation party.
12  */
13 public class Group3 extends AbstractNegotiationParty {
14
15     /**
16      * Each round this method gets called and ask you to accept or offer. The
17      * first party in the first round is a bit different, it can only propose a
18      * offer.
19      *
20      * @param validActions
21      *      Either a list containing both accept and offer or only offer.
22      * @return The chosen action.
23      */
24     @Override
25     public Action chooseAction(List<Class<? extends Action>> validActions) {
26
27         // with 50% chance, counter offer
28         // if we are the first party, also offer.
29         if (!validActions.contains(Accept.class) || Math.random() > 0.5) {
30             return new Offer(generateRandomBid());
31         } else {
32             return new Accept();
33         }
34     }
35
36     /**
```

Task List

Find All Activate...

Connect Mylyn

Connect to your task and ALM tools or create a local task.

Outline

- multipartyexample
 - Group3
 - chooseAction(List<Class<? extends Action>> validActions) : Action
 - receiveMessage(Object, Action) : void
 - getDescription() : String

Problems @ Javadoc Declaration

0 items

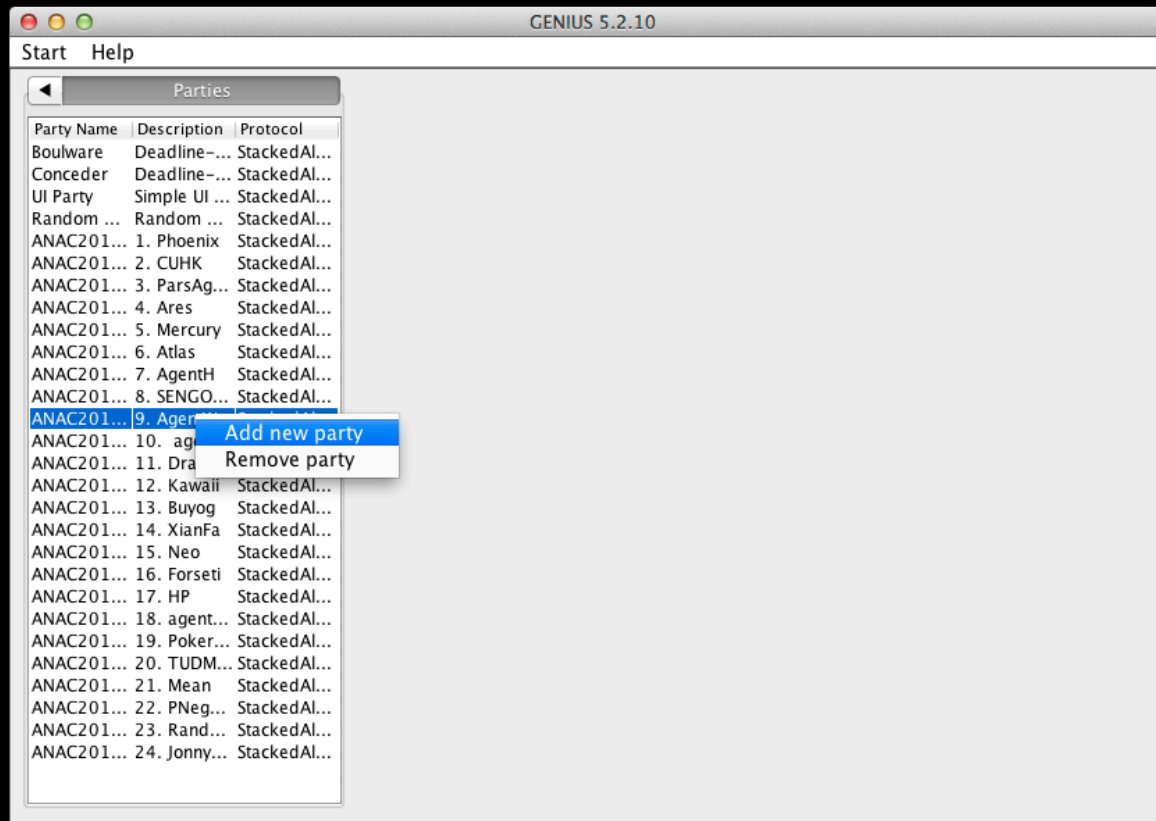
Description	Resource	Path	Location	Type

Writable Smart Insert 56 : 1

Edit your agent

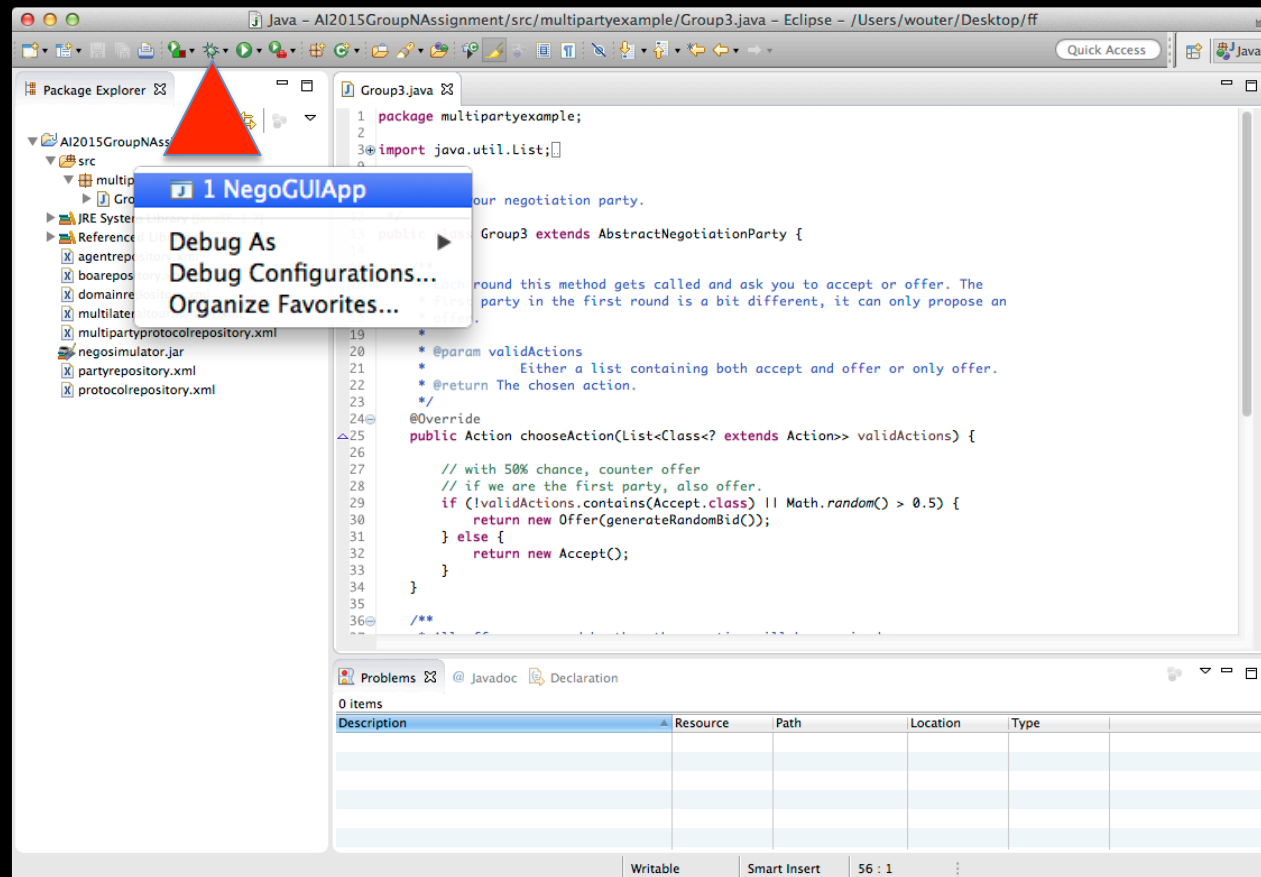
- Use the javadoc for more information about the classes
- Minimal implementation requires `chooseAction`.
- `receiveMessage` should help improving your bids
- `getDescription` is recommended.

Insert your agent in Genius



Debug your agent

- Place your breakpoint
- Debug NegoGUIApp



Create profile

Profiles are utility space descriptions and are stored in genius/etc/templates and domainrepository.xml

- Select domain and then “New Preference Profile”
- Set the discount, rv and utilities for all issues
- Set utilities for all
- Save

