

NPCEditor Tutorial

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Tabs

- **Utterances**
 - lists of questions and answers
- **People**
 - characters defined in the database
- **Classifiers**
 - each character has a “brain” — classifier
- **Chat**
 - chat with a character

Chat

- **Chat tab**
- **“who are you?”**
 - Press “Enter Question” button
 - NPCEditor has a classifier. Classifier analyzes the question and selects a response
 - Log shows the response
 - You can hit <Ctrl+Enter> instead of pressing the button. Try it.
 - Log shows another response
 - Classifier selects a (ordered) set of responses. Dialog manager makes the final selection

Chat

- **Hit <Ctrl+Enter> again**
- **3 responses!**
 - “pre-repeat” - indicates that he knows he is repeating himself
 - response - actual response
 - prompt - tries to push the conversation along
- **“How old are you?”**
 - this is an “on-topic” response
- **“Say again”**
 - repeats the last answer
 - adds a prompt

Chat

- **What happens when baron does not have an answer?**
- **“Hello”**
 - off-topic
- **1st reaction: the question is “opaque”**
 - I did not hear you correctly
- **2nd reaction: “unknown”**
 - I do not think I know the answer
- **3rd reaction: “conceal”**
 - I am not going to answer that
 - ... and a prompt to move conversation back on topic

Utterances

- **Utterance tab**
- **Two lists: questions (left) and answers (right)**
- **Each list: master-detail interface**
 - list + editor panel
 - editor panel is resizable
 - list is resizable,
 - columns are moveable
 - columns are sortable

Add an answer

- **Add an answer**
 - “Add” button
 - empty line is added to the list and selected
 - type “Baron Del Rey is my name”
- **Columns**
 - ID: an index in the list
 - Text: text of the utterance (doh!)
 - Speaker: the character name (set it to baron)
 - External ID: a string identifying the utterance for external clients (has to be unique)
 - “?”: status. It’s red when there are problems with the utterance
 - two answers have the same text (answer #1 and the new answer)
 - two answers have the same external ID
 - point mouse at the red block – a tooltip will explain the problem
- **Remove the answer (make sure you select the right line!)**

Linking questions and answers

- **Maps questions onto answers**
 - select question #2 on the left
 - select answer #1 on the right
 - “Link Value” popup menu at the bottom: select “6 - relevant and fluent”
 - different values can be assigned
 - in this experiments we only care about values 0 and 6
 - Same can be done via a menu in menubar
 - Edit > Set Link Value to > “6 - relevant and fluent”
 - ... or press ctrl+6.
 - press ctrl+0 to remove the link

Links (continued)

- **Select question #3**
 - selection is blue
 - answer #4 row is green
 - green indicates a link between the answer and the **selected** question
 - a green row among questions indicates a link between the question and the **selected** answer
- **Columns (e.g., answers)**
 - “-”: the link between the answer and the selected question
 - 6 - link of strength 6
 - empty - no link
 - * - multiple questions selected and the link values are different
 - “#”: number of questions linked to the answer
 - answer #1 has 2 links

Exercise

- **Add an answer, sample questions and links**
- **answer: “What can I do for you?”**
- **questions: “Hello” “Hi” “How are you doing?”**
- **link the questions to the answer**
- **go back to the chat tab and ask “Hello” again.**
- **did it work this time?**

Classifier

- **Classifier selects answers using the question**
- **Classifier requires training**
 - go to classifiers tab
 - you should have 1 row
 - select it
 - at the bottom, check “Test on training data”
 - press “Start Training”
- **go back to the Chat tab and test the question again**

Classifier debugging

- **If you do not get the correct response from the classifier**
 - classifier cannot get good statistical information from the sample data
 - sample is too small: not enough questions
 - sample is not good enough: questions do not cover the domain
 - decision threshold is too high
- **Score estimates**
 - utterance tab
 - check the “Update scores” check box
 - it fills out the score column in the utterance list
 - the column (answers) shows the match score between the selected question and each answer
 - same for the question list

Categories

- **Columns “Type” and “VHT Demo”**
- **A category is a set of tokens**
- **A token can be assigned to an utterance**
 - popup menu in the utterance editor panel
- **Some categories are just for labeling**
 - VHT Demo
- **Some are used by the NPCEditor**
 - Type
- **Can be seen in the Settings tab**
 - You can edit the VHT Demo category
 - You cannot edit the Type category
 - You can assign colors for the tokens

Special answers

- **The “Type” category**
- **commands**
 - alternative
 - repeat
- **off-topic**
 - opaque
 - conceal
 - unknown
- **supplementary**
 - pre repeat
 - delayed

Exercise

- **Add an off-topic response**
- **“say again?”**
- **set the speaker**
- **mark it as “opaque”**

People

- **People tab**
 - “baron” is the only person defined
 - select it
- **General**
 - name and icon
- **Accounts**
 - account – defines a protocol for a character to talk to other software
- **Blackwell**
 - dialog manager parameters

Account

- **Defines a protocol for a character to talk to other software**
- **email, jabber, jms-based protocols, etc...**
- **We use “Gunslinger”**
 - accepts speech events, sends out FML messages
 - Jina will talk about FML
 - select it
- **Parameters**
 - description
 - server
 - scope
 - agent name
 - connect on startup

Dialog manager parameters

- **Classifier selects a set of answers**
 - each answer has a score
 - answers are ranked by the score
- **Dialog manager (DM) chooses among them**
- **DM uses the conversation history**
 - if the answer have been heard **recently**, try to find an alternative
- **content recency**
 - when giving an on-topic response look back for that many moves
 - 0 = always give the top ranked answer
- **random choice recency**
 - same as content recency, but for off-topics
- **offtopic initiative**
 - wait for that many off-topics before prompting