Proposal for improvements to the Nespole! interface

R. Cattoni, E. Pianta
ITC-irst
I-38050 Povo, Trento, Italy
{cattoni,pianta}@itc.it

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Abstract

In this document we propose some changes to the Nespole! interface in order to improve the quality of both demonstrations and development/debugging.

1 Introduction

The demonstration of the system during the user group meeting in IRST (21st September 2001) was very important: a lot of feedback came from the people attending the meeting. Also we had some internal discussions about how to present and run the system in the best and effective way. In this document we propose some changes to the current Nespole! interface in order to improve the quality of both (public) demonstrations and internal development/debugging.

2 Global tracing

PROBLEM: the flow of the relevant information during the dialogues (texts and IFs) is splitted into two streams showed/saved in two different logs (Mediator and commSwitch):

1. local recognized text ("System hear") – Mediator
2. produced IF – commSwitch
3. local paraphrased text ("System understand") – Mediator
4. remote generated text ("Remote translation") – Mediator

The two logs are not easy to access and integrate at run time. This makes difficult to have a global view of the system (both in demonstrations and debugging).

TARGET: to have a unified/integrated stream/trace of *all* the flow of information during the dialogue (both texts and IFs).

CHANGE:

- modify the HLT Servers so that they send to the commSwitch (as a COMMENT message) a copy of the debug messages sent to the Mediator;
  [*EFFORT: minor change, tobedone by CMU, UKA, CLIPS, IRST*].
- add a new tcl-based window, **structured as a chat**, that filters the messages sent to the commSwitch; this window would give a view on the global trace of the interactions. The user should also be able to filter out steps she doesn't want to see by means of appopriate buttons. The global trace window is very important for demo purposes – think of the window used by ATR during C-STAR II demos.
  [*EFFORT: minor change, tobedone by some Tcl expert (volunteer) among Roldano, Chad, ...*].

3 Feedback about remote audio

PROBLEM: the local use cannot hear the remote synthesized audio. The impossibility to have any feedback about what the remote user actually received from the system was one of the main limits of the latest demonstration.

TARGET: to enable the local user to hear the remote synthesized audio.

CHANGE:

- modify the Mediator so that the synthesized audio may be sent also to the peer user; this should be optional by means of a enable/disable button (like the current audio options).
  [*EFFORT: (unknown here, perhaps not high), to be tobedone by AETHRA*].

4 Overcoming poor recognition

PROBLEM: the recognizers sometimes produce poor quality texts – especially in overloaded physical network conditions. This affects all the HLT chain, in spite the fact that (1) analyzers work on texts and (2) the HLT architecture is well modularized.

TARGET: to enable the user to enter directly text to be analyzed when the recognizer performs poorly.

CHANGE:

- modify the Monitor Window so that it can accept manually entered text and send it to the HLT server via Mediator.
  [*EFFORT: (unknown here, perhaps medium), tobedone by AETHRA*].
- modify the protocol among Mediator and HLT Server in order to add the sending of text to be analyzed from the former to the latter.
  [*EFFORT: minor change, tobedone by AETHRA with collaboration of all*].
- modify the HLT Servers so that they can receive text from Mediator and analyze it.
  [*EFFORT: minor change, tobedone by CMU, UKA, CLIPS, IRST*].

Conclusions