**Airspace Email Syntax**

Version 1.0
October 2006
Aaron Steinfeld, steinfeld@cmu.edu

# 1   General Comments Regarding The Airspace Corpus

This research material was developed by the Test Group within the Radar project[1]. It is being disseminated through this site so that other researchers can leverage our efforts into other projects and fields. Some of this content is used to train Radar components and other content is used during the Radar evaluation test.

The content describes a technical conference (ARDRA), the planning of the conference, and small changes that need to be made to the conference plan.

The most important caveat to this collection is that *over 90% of the content is fabricated*. As such, there are known flaws in the content. For example, characters in email may have slightly different writing styles due to the multiple authors. Also note that any references to real persons or organizations are strictly accidental.

For more detail on content creation, experiment design and protocol, execution of the experiment, see the following paper:

> A. Steinfeld, R. Bennett, K. Cunningham, M. Lahut, P.-A. Quinones, D. Wexler, D. Siewiorek, P. Cohen, J. Fitzgerald, O. Hansson, J. Hayes, M. Pool, and M. Drummond, The RADAR Test Methodology: Evaluating a Multi-Task Machine Learning System with Humans in the Loop (Tech Report CMU-CS-06-125, CMU-HCII-06-102), Pittsburgh, PA: Carnegie Mellon University, School of Computer Science, 2006.

> http://reports-archive.adm.cs.cmu.edu/anon/2006/abstracts/06-125.html

## 1.1   Requirements for use of this content

We are pretty flexible with respect to the use of this content. The only requirements we ask you to satisfy are:

1.  Do not redistribute this content. Instead, point interested parties to this site. This requirement is mostly to prevent discrepancies in the research community due to version changes.
2.  Likewise, keep track of what version you are using and report the version number when disseminating your work.
3.  Cite the paper listed above and a link to the Airspace site[2] in publications/proposals if this content is used for the work in question.

---

[1] http://www.radar.cs.cmu.edu

[2] http://www.cs.cmu.edu/~airspace

4. Send us references and links for any publications that result from the use of this content (steinfeld@cmu.edu). We will add what you send to a list on the Airspace page unless you request otherwise.
5. Contact us (steinfeld@cmu.edu) if you make substantial changes to this content and want to distribute your version to others. We will provide a link to your version on the Airspace site.

## 2   Warning Regarding Making Modifications

We are currently in the midst of finishing a simulated world schema – complete with a GUI editor that enforces schema compliance. This includes a sub-GUI for corpus authoring and editing. We expect to release this sometime during the 06/07 academic year.

Also note that the native storage of the email content is not traditional email files. Content is stored in a database and passed to a program that generates the email files. As such, reverse importing of modifications to the email files will not be supported.

If you intend to make significant modifications to the email messages provided here, you should contact us so that we can (a) comment on if your efforts will be rendered obsolete and (b) consider incorporating your needs into the GUI.

## 3   X-RADAR Fields

When examining the email files, you will note that there are custom X-RADAR fields. Some of these are supported and should be clean, while others are unsupported. The latter may have useful content (typically for the backstory) but quality control was not conducted on these fields. As such, bugs and discrepancies may exist in these fields.

These fields should not be used as inputs to algorithms and were generated for ground truth analyses and other performance measurements. For classification efforts, the most important field is Label. The Thread label is probably useful for clustering analyses on the backstory portion of the corpus.

### 3.1   Supported

#### 3.1.1   Time

This is the authored timestamp of the message. There are two modes: backstory and injected. Wargaming and test messages are in injected format.

*Backstory format:*

MMM DD HH:mmam YYYY, where MMM is the three-letter month.

*Injected format:*

MMM DD m, where m is the number of minutes from the variable-set session start time. Note that most injected messages have a month and day setting that matches this variable. In some cases, this timestamp is a day or too earlier.

### 3.1.2 Thread

The backstory is divided into threads for convenience. To avoid conflicts, begin numbering threads at 100. See section 5 for a loose outline of backstory threads.

### 3.1.3 Noise

This is "true" if this message is a noise message, "false" otherwise. Noise is defined as messages unrelated to the conference. Note that by default "false" should equate to no label being assigned (see 3.1.6).

### 3.1.4 Messageid

This is a unique identifier for the message. Messageids are guaranteed to be unique but not consecutive. For a while there was some alignment of range with (real) message author, but this drifted over time. The external evaluators were assigned the messageid range 0-999. The messageid is located right after the ".injector." string. For example, the excerpt below is from messageid 1003.

Message-Id: <1155651055.1086972720.injector.**1003**@CURUNIR>

### 3.1.5 Replyto

If this message was in reply to another message in the corpus, this should be that message's ID. Otherwise, this is set to "0".

### 3.1.6 Label

With the exception of the initial files produced by the team (Perturbation-*.xml and Query-*.xml)[3], messages were written to the labels within the boundaries of the console forms associated with the labels. There are no intentionally wrong labels since labels are solely for the purpose of providing a ground truth for NLP testing - they are not passed to Radar during the actual wargaming or test.

The labels are:

1. BRIEFING: If the message contains a request for a briefing. This is not to be confused with requests for individual facts.
2. CHANGE-ROOM: These are for changes to room details (capacity, equipment present in the room, room dimensions, etc). Vendor orders are not reflected here. This is for permanent room characteristics.
3. CHANGE-SESSION: These are for documeting changes or new constraints to entire sessions. For example, changes in expected attendance.
4. CHANGE-SPEAKER: These are for documenting changes or new constraints for specific speakers at the conference. These are typically changes to speaker availability.

---

[3] Note that identification of these messages is incomplete for users of this corpus. If this is an issue, please contact us and we will attempt to retrace the specific messages using Messageid values.

5. INFO-REQ: This task type is for generic requests for information: directions, website pointers, answers to simple questions, etc. For example, someone asks for the conference website link.
6. MISC-ACTION: This type is used for miscellaneous tasks that do not fit into other categories and are largely satisfied with vendor orders. For example, someone wants a slide projector or a vegan meal.
7. WEB-VIO: These are for single changes to the ARDRA website. For example, a speaker's email address is wrong, a paper title needs to be fixed, etc.
8. WEB-WBE: These are for email messages that will lead to batch website updates. These contain a reference to the file which needs to be used. In the context of this corpus, the reference is a hyperlink to a CSV or ".wbe" file.

There are some subtle nuances to these labels:

9. The labels in the email stack only document one label per type. For example, if the message details attendance changes for multiple sessions, there is only one CHANGE-SESSION label.
10. Situations where people ask for specific equipment that is a current room property (e.g., projector, microphone) are CHANGE-SESSION. If it will require a vendor order (e.g., a second projector), there will also be a MISC-ACTION.
11. Closing comments from characters like "Does that sound feasible?" or "Get back to me with any problems" also lead to the addition of an INFO-REQ label. Within these semantics, the label is only present if a request for a response is explicit. Good manners do not come into play.

See the referenced tech report for more detail on vendors and buildings in the simulated world. Websites documenting detailed room characteristics will also be provided on the Airspace website.

## 3.2 Unsupported

### 3.2.1 Period
This value is currently unused. This should be set to "0" in all messages

### 3.2.2 Group
The general category this message falls into. Current categories are: Query, Response, Directive, Discussion, Confirmation, Vendor Query, Vendor Response, UC Query, UC Response. UC is a Carnegie Mellon building in the simulated (and real) world.

### 3.2.3 Outcome
This is also unused for now. It should be set to "blank" in all messages.

### 3.2.4 VIP
This will be set to "true" if this message comes from a Very Important Person, and "false" otherwise. As of now, VIPs include members of the Program Committee and the

keynote speaker. There are a few other instances where VIP was supposed to be set to true, but may not be.

### 3.2.5 Response

This will be set to "true" if Blake (the conference planner) has responded to this message *later in the thread.* It is "false" otherwise. Messages from Blake should never be "true". The purpose of this column is to replicate the "responded-to?" column in a client like Outlook.

## 4 Cast of Characters

Planner (*role filled by subject*):
　　Blake Randal (bor@cs.cmu.edu)
ARDRA Program Committee (PC):
　　Chair:
　　　　Jonathon Robertson (jrobertson@ardra.com) (Formal)
　　Technical Chairs:
　　　　Francine Allen (fra@ardra.com)
　　　　Tom Whittenburg (tlwhiten@ardra.com) (Terse, Clipped)
　　Local Chair:
　　　　Jan Wilson (janice@cs.cmu.edu)
　　Members:
　　　　Michael Winslow (mrwins@ardra.com)
　　　　Rob Anderson (roa@cs.cmu.edu)
　　　　Spence Pierro (spierro@ardra.com) (Annoying)
　　　　Natalie Cohee (ncohen@dot.gov)
University building contacts:
　　Primary Contact:
　　　　Carl Spencer (cas@cmu.edu) (informal, bad spelling)
　　Secondary Contact:
　　　　Art Furr (afurr@cmu.edu)
Flagstaff Hotel:
　　Contact:
　　　　Julie Coil (jcoyle@pittsburgh.flagstaff.com) (incompetent)
　　Assistant:
　　　　Meredith Lorenz (lorenze@pittsburgh.flagstaff.com) (competent)
ARDRA Award Comittee:
　　Sam Ketterson (skatters@ardra.com)
　　Brad Cruise (bcruise@ardra.com)
　　Andrea Manson (amanson@ardra.com)
ARDRA President:
　　Andrea Manson (amanson@ardra.com)
Keynote Speaker
　　Stuart Weitzmann (sweitzmann@gmail.com)

Plenary Speakers
 Andrea Manson (amanson@ardra.com)
 Cara Ride (cmride@ardra.org)
 Jonathon Robertson (jrobertson@ardra.com) (Formal)