“ACT" Manual V4.0

Data Mining and Machine Learning Lab

http://dmml.asu.edu

Arizona State University

2012.02.15
ASU Coordination Treckometer (ACT) for Disaster Relief

A. System Development Environment

Server: Apache 2.2.13
Language: PHP 5.2.10
Database: Mysql 5.0.18
Framework: Kohana 2.2

B. System Test Account:

URL: http://alive-dev.asu.edu/act-tempe

The Password for the system:
Username: tempetester
Password: tempemap

C. Browser Compatibility

IE 6.0 or higher; Firefox 3.5 or higher; Chrome 8.0 or higher.

D. Demonstration Procedure

1. Register (Optional)

Navigate to "http://alive-dev.asu.edu/act-tempe", Click the "register" link to open the registration page. Create a new account (example below).
2. Logging in

At the url "http://alive-dev.asu.edu/act-tempe", use the administrator account (Username: tempetester; Password: tempemap) to log into the system.

3. Submit a request

Click the "SUBMIT A REQUEST" label in the headline
4. **Have different request views**

3.1 After logging into the system, select a resource view.
3.2 Display an alternate status category using the select box.
5. Respond to requests

4.1 From the "Available Request" status category, select a resource category (not "All Categories"), then click on a singleton node to respond to the node’s requests.
A new page will be generated as shown below:

<table>
<thead>
<tr>
<th>Relief Package Items</th>
<th>Request Date</th>
<th>Resource Type</th>
<th>Select Qty.</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 K-Unit(s) Medical Assistance</td>
<td>2010-01-01 00:00:00</td>
<td>Medical Assistance</td>
<td>98 K-Unit(s)</td>
<td>dmnl</td>
</tr>
</tbody>
</table>

4.2 From the map, select the request cluster.

4.3 From the map, select additional requests from different resource categories as needed.
6. Edit the Relief Package

5.1 Input the desired quantity then click "update"

5.2 Update all instead of updating one by one
5.3 Delete a request

5.4 Verify the summary of the requests and process to deliver

7. View all the requests
6.1 Click the "REQUESTS" label in the headline

6.2 Click a specified request on the request list

8. View Relief Resources
Click the "My Relief Package" label in the headline
9. **View My Response**

10.1 Click the "My Response" label in the headline

![Response List]

<table>
<thead>
<tr>
<th>ID</th>
<th>Category</th>
<th>Quantity</th>
<th>Status</th>
<th>Request Date</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clothes</td>
<td>3 K. Piece(s)</td>
<td>During Delivery</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Shelter</td>
<td>40 K. Unit(s)</td>
<td>In Relief Package</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Shelter</td>
<td>46 K. Unit(s)</td>
<td>In Relief Package</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Medical Assistance</td>
<td>98 K. Unit(s)</td>
<td>In Relief Package</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Clothes</td>
<td>171 K. Piece(s)</td>
<td>During Delivery</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Food</td>
<td>10 K. Pound(s)</td>
<td>Delivered</td>
<td>2010-01-01 00:00:00</td>
<td>1</td>
</tr>
</tbody>
</table>

9.2 Click specified request and update its status

![Request]

*Status:*
- In Relief Package
- Available Request
- In Relief Package
- During Delivery
- Delivered

*Location:*
- Latitude: 13.4567
- Longitude: 0.848262
*The function “Upload”, “Resource Map”, “Resources”, “Twitter Requests” are all under development. You may use these functions in the following procedure; please let us know if you confront unknown errors in these functions.

10. Upload

Click the “Upload” label in the headline

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Click 'Uploading Instructions' link and follow the instructions to upload files
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File Upload Instructions for ACT

1. Enter assigned ‘organization name’, ‘real name’ and ‘E-mail address’ in the uploading form.
2. Once you have finished step one, you should choose ‘Category’ for the file that is going to be uploaded. By now only ‘txt’ files are accepted.
   a. Twitter Request:
      Files that contain requests from Twitter should follow the format shown below. Each line is one data record.
      "map_id", "tweets content", "keyword1", "category", "flag", "latitude", "longitude", "city", "date"
      "map_id", "tweets content", "keyword2", "category", "flag", "latitude", "longitude", "city", "data"
      "map_id", "tweets content", "keyword3", "category", "flag", "latitude", "longitude", "city", "data"
   b. Other Request:
      You should first choose to which category the request belongs.
      Files that contain requests from other resources should follow the format shown below. Each line is one data record.
      "latitude", "longitude", "quantity", "comments"
      "latitude", "longitude", "quantity", "comments"
      "latitude", "longitude", "quantity", "comments"
```
11. Resources & Resource Map

Upload a resource file in “Upload”, specify the category.

The resource/requests will be uploaded to the database in designated categories.

Resource list is updated automatically, and this list has similar function as tweets list, which can refer to the section 13 “tweet requests”.

Click “Go to Resource Map”, all the uploaded resources will be visualized.
12. Requests & Request Map

Upload a request file in “Other Request” category; this is used to distinguish with the “Twitter Request”
Update the database:

The request list is updated automatically, and this list has similar function as tweets list, which can refer to the section 13 “tweet requests”.

Click ‘Go To Request Map’
All the requests belong to ‘Water’ category

13. Twitter Requests

This section describes the data analysis methods in ACT for twitter request analysis, the “twitter requests” data can be uploaded by following the instructions in the previous section. Below is a brief instruction for the current data analysis functions in ACT. Some of the functions in “ACT-TEMPE” may be invisible as they are under development.

Click the “Twitter Requests” label in the headline:

Click ‘Keywords’ field to update keywords:

Click “Category” field to update category:

Click “Location” field to update location:
Click ‘submit’ button to update the location and go back to twitter requests list:

**Update the Location**

Select a location:

<table>
<thead>
<tr>
<th>latitude</th>
<th>longitude</th>
<th>city</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0296146285619</td>
<td>38.454263582342</td>
<td>NIA</td>
</tr>
</tbody>
</table>

Click the “KEYWORDS GRAPH”:

**Twitter Requests List**

- **KEYWORDS GRAPH**
- **CATEGORY GRAPH**

**Medical Assistance**

- Water
- Fuel
- Shelter
- Food
- Trapped Person

**Medical Assistance**

- **done**
  - clinic
  - doctors
  - doctor
  - patient
  - pain
  - shut
  - patient
  - medical
  - dead
  - help
  - injured
  - urgent
  - band
  - need
Click a single node, its links are highlighted:

The left panel shows detailed information of the node.

The left panel offers user interactions to play with the graph.

Click the “CATEGORY GRAPH”:
Follow the instructions showed in the left panel and play with this graph

Click ‘Next Period’ button

Click the “TWEETS SCATTER PLOT”: 
Move over one node to read the tweets content

Click one node and the corresponding content is displayed in the top of the table

Re-label the tweet and click ‘Re-cluster’ button
<table>
<thead>
<tr>
<th>Tweets Content</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Syria Home Homs Union pages neighborhood pitch black dense smoke fills the sky with sporadic gunfire heard</td>
<td>3</td>
</tr>
<tr>
<td>RT AboFlan letter sent by a friend named mother of Rami from Syria and squinted stronger only by God no water no electricity no gas Syria</td>
<td>3</td>
</tr>
</tbody>
</table>