



Daily Needs Update (DNU) Tool Development With File Maker Platform

Background

The Strategic Needs Analysis Project (SNAP) is a partnership by ACAPS and MapAction, funded by DFID and DANIDA. It aims to strengthen the shared situational analysis of humanitarian responders by providing independent analysis of the humanitarian situation faced by those affected by the Syrian crisis. With the resurgent Iraq crisis, SNAP has evolved to cover the region more broadly. To meet key information needs identified by humanitarian stakeholders, SNAP publishes a monthly and more in depth, quarterly, Regional Analysis for Syria (RAS) with information on the humanitarian needs resulting from the Syrian crisis, scenarios outlining how the situation might evolve, as well as thematic reports on specific subjects, including on different affected groups. The information in these reports is primarily based on secondary data. SNAP also seeks to engage as broad a range of actors in humanitarian analysis to improve the shared situational awareness, improve analysis capacity and foster information exchange.

In addition, SNAP provides technical assistance to the humanitarian community with Coordinated Multi Sectors Assessments, such as those undertaken in Northern Syria.

Purpose

When doing situation monitoring, there's a need to handle and process a lot of data located in the internet or in computers, sometimes under high time pressure. In these situations, analysts collate information from media websites, humanitarian forums, government statistics websites or coordination platform and analyse this information in near real time in order to inform decision makers and allocation of resources. In many way, this activity is similar to web scrapping activity, for selected paragraph or pieces of text located in various places and coming from various sources. However, the unpredictability of data type, volume, location and velocity means we cannot fully rely on computers and automatization to compile, sort and make use of data. A human brain will always be necessary to select relevant pieces of information and discard less important ones, unreliable information or redundant sources. Rather than harvesting the web using programming and code, an assisted data capture would advantageously assist the researcher in his quest for relevant information and assist him in managing and storing information. There are currently several software that are close to this solution, or build on same principle in large, e.g. Citavi and Evernote, scrapbook. However, their scope is either too extensive or too limited and usability too complex for the larger amount of data handled for situation monitoring.

The purpose of the consultancy is to provide the SNAP project with a ***data repository system coupled with interactive, controls and security features***



Objectives

- 1) *To develop a platform for data capture, data entry, data storage and data querying with a proprietary system*
- 2) *To provide the SNAP team with the necessary training and capacity building documentation to use, maintain and upgrade the platform*

Expected deliverables

- *Up and Running online functional File Maker database*
- *Documenting project status*
- *Documenting the program and training materials*

Scope of Work

A- General Principles

Database Requirements: The overall design of the database should include but is not limited to: Enforcement of Industry GUI Standards, Include Field Definitions for user to clarify Data Entry, Data Field Verification at entry, Include Drop-Down boxes and drag and drop features. Must be able to edit easily, Must be able to modify database to accommodate future and changing needs, Must have ad-hoc reporting capabilities. Standard reports should be transactional based listing the information entered for that specialty or area.

Off line access: Users will have offline access to the system via a local “satellite” file—basically, a copy of the system stored on each user’s individual machine. The satellite file will have to be updated when an internet connection is available; then it can be edited offline. Once a connection is re-established, edits can be merged with the online system. If edits have been made to a single record in two different places, the system will use the most recently edited version—and save a “backup” copy of the older data point in a hidden table. Thus, if a user is merging his edits, and one or more of his changes don’t get committed, he can still access and retrieve his changes in the live system to compare and contrast records.

B- Relational Data Base Structure

The DB would be designed upon the current existing DNU Structure (**in excel format, attached Annex I**), however it would also entailed the following:

CONTACTS:

- A single table encompassing contacts, employees, Partners Categories (eg: Donors, Embassies, IO, Government, etc.).
- Comprehensive contact info, with related contacts linked per organization (if applicable).
- Mailing lists and campaigns across an unlimited set of (saved) groups.



GROUPS:

- A dynamic list of groups (comprised of contacts) which can be easily edited and retrieved.
- Groups may represent general categories (eg, UN, Donors, etc.), mailing lists (eg, Appeal Funding, Analytical products, updates, etc.), and temporary, saved sets.
- Old groups may be hidden or “retired” from view without compromising membership (and easily retrieved when called for).

DATA POINTS (See Annex I, DNU in Excel):

In order to make more effective the data analysis and information retrieval, a key element is to be able to quickly categorize and sort data into pre-defined dimensions and measure categories. The platform should allow the definition and customization of categories and dictionaries that will appear as drop down or drag and drop menu and in which to choose the relevant “tags” to attribute to each piece of information collected. The list of tags is pre-defined in advance and customizable as new categories of information appears. Caution, some tags are hierarchical and also multi-dimensional (i.e. for each sector there might be a sub sector). They include:

- The platform should also allow to auto-record relevant user data: Created/Modified User, Date and Time
- The date of the data capture
- The date of the information (in the case the information refer to another day than the day of the capture)
- The geographical area the information refers to (3 administrative levels, drop down menu and search function)
- The drivers of the crisis (type of hazard, i.e. conflict, economic breakdown, etc.)
- The sector and sub sector the information related to (i.e. WASH>Water supply)
- The affected group the information relates to (IDPs, refugees, etc.)
- The source (hard disk location and name or webpage)
- The numbers of people the information refers to
- The reliability level (Usually reliable, fairly reliable, unreliable, etc.).
- The confidentiality score (Unprotected, protected, restricted, etc.)
- The severity score (Ideal, minor, moderate, serious, critical problem, etc.).
- The underlying factor of the issue (Access, availability, use, awareness, etc.)

SOURCES:

- A basic table of all your various sources with bibliographical information if applicable.
- Quick access to all related data points per source.

C- Viewing the Data

- Three views—detail, list and web view—will help users access and edit data from various perspectives.



D- Features

- Various entry options for all fields (hard entry, pop-up menu, auto-fill, drag and drop, etc.).
- Some menus will be conditional, based on prior input values.
- Ability to import single web pages or multiple sites from search results (when possible).
- Duplicate warnings when users try to add data points from an existing source.
- Easily split a single, culled record into multiple data points for clarity.
- Quick exporting of found sets into Excel, or other formats, such as .csv, word, pdf, etc.
- A dynamic list of tags which can be easily edited and retrieved. Tags may represent general categories, sub-categories, and/or sub-sub-categories. Some tags may require further action from the user.
- An unlimited number of documents can be saved to either a Contact or Data Point record.
- Storage of data or links to data storage areas where they can be retrieved without loss of data retrieval functionality
- Must be able to accept data in any common electronic file format, so as to upload documents of any file type (eg, Word, XL, PDF) , including links to documents online.
- Identification of data sources and contact information must be available with each stored data file
- A log of submission and requesters must be kept available.
- Data version (date received from data supplier) identification included with each data retrieval, and on-line documentation of the history of data versions for each data source;

E- Data Access

- Remotely accessible via the web (or other suitable approach) and able to accommodate multiple users simultaneously;
- Publicly accessible user-friendly interface and data content index;
- Controlled Retrieval of user -defined data or data files containing subsets of the data database using measurement parameter, method, location, date/time, or other metadata to identify the desired subset with password protected controlled data retrieval limited to authorized data users;
- On-line retrieval for data subsets where possible;
- Some menus will be locked to the average user; admin users will be able to edit them via an Admin control panel
- Conditions DB editor/browser to allow users to browse and modify the conditions database.
- Conditions DB management tool to allow experiment calibration managers to perform management actions such as purge old versions, split data items, tag versions, re-locate conditions to physical files, etc.



- Conditions DB replicator and slicer tools to allow production managers to replicate the totality or slices (by time, by version or by item) of the database into production centres and keep them synchronized.
- A simple list of database users from which to manage access privileges and employee contact info.

Requirements:

- Minimum of 5 years of IT development experience
- Able to work in a fast paced, demanding atmosphere
- Degree/diploma in a design-related field (with co-op experience) is preferred
- Significant experience of development using file maker as a platform
- Expertise in current existing computer hardware and software
- Ability to use one or more development language (C++, PHP, HTML, etc.)
- Must be detail focused, able to multi-task and effectively manage the timely delivery of work against short deadlines
- Strong communication skills and an ability to take direction well
- Flexible in approach and problem-solving ability; able to embrace challenges with imagination and flair

Further information

A synopsis of the project is available by contacting: Yves-Kim Créac'h, SNAP Project Lead; Email: SNAPLead@acaps.org. For general information about SNAP, please consult: <http://www.acaps.org/en/pages/syria-snap-project>.

To Apply

SNAP is seeking IT DB Development expertise using File Maker as a platform. Interested persons should send their application to SNAPLead@acaps.org before 10/01/2014, COB Eastern European Time (EET). Due to the urgency of the consultancy, application will be reviewed on a day to day basis and recruitment done accordingly.

The Application should contain:

- A recent resume with a cover letter outlining the applicant's previous experience and its applicability to the proposed assignment.
- A full proposal for the outlined work which will include a draft timeline, price, team composition (if a team is proposed) and any other relevant documents. Proposal should contain the main following elements and these should all be in English.

Proposal Elements:

For each of the below listed engagement scope components, please document (1) the total cost (firm fixed cost) and (2) the total anticipated number of work hours needed to complete the activity

1. Development of the database, including but not limited to: table structures, fields, definitions, relationships, screen views, reports.



2. Develop documentation and training for daily database operations.
3. Reviews of the database at various project management stages with SNAP employees and any resulting database modification.
4. Firm Experience and Expertise:

Describe three past engagements related to development of File Maker databases and/or programs preferably at small/medium and diverse enterprises and/or academic institutions.

- Past engagement #1:
- Past engagement #2:
- Past engagement #3:

Provide a brief narrative overview describing your firm's experience and expertise with each of the below listed scope components and/or knowledge areas:

- Microsoft Access databases, analysis and presentation of the data, processes, and tools
- Creation of database documentation and training materials

5. Individual Experience and Expertise

Attach resumes of either specific or typical staff members who would be assigned to the engagement on at minimum a 50% basis. Provide response as Attachment #1

6. Deliverable Processes

Describe the process that will be used to complete each of the following Scope of Work components (deliverables) and when to expect them:

- File Maker database
- Documenting project status and clarification requests
- Documenting the program and training materials
- Provide a detailed project schedule in a Gant format with tasks that outline each of the components of the engagement and their respective time durations

Provide response as Attachment #2

7. Stage Validation Processes

Each stage will undergo acceptance testing by SNAP's project manager. The respective stages are:

- Table Structure and Definitions
- Screen Views
- Data Entry Process
- Reporting (screen and printable)
- Training Session



Please note that only applications sent by email will be considered. Incomplete applications will not be considered.