

**PEACE TRACK MOBILE APPLICATION**

Product Requirements Document

# DOCUMENT CHANGE CONTROL

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| 0.7 | 4/25/2014 | M. McAllister | Incorporated edits |

# DEFINITION

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| --- | --- |
| **Term** | **Definition** |
| PCV | Peace Corps Volunteer |
| RPCV | Returned Peace Corps Volunteer |
| Post | A Country with a Peace Corps Mission |
| PCMO | Peace Corps Medical Officer |
| VRF | Volunteer Report Form |
| VRT | Volunteer Reporting Tool |
| APCD | Associate Peace Corps Director (Interchangeable with PM) |
| PM | Program Manager (Interchangeable with APCD) |
| SI | Standard Sector Indicator |
| PDI | Post-Developed Indicator |
| CSPP | Cross Sector Programming Priority |

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# GITHUB ORGANIZATION:

The PeaceTrack App will have an iOS and Android implementation. To support discussion on topics covering both environments there is a ReadMe repo as well. The ReadMe repo is purely for discussion on features common across platforms, it will not host code. It contains many reference materials that will be helpful for building this application.

**README**: <https://github.com/PeaceCorps/peacetrack-readme>

**iOS**: <https://github.com/PeaceCorps/peacetrack-ios>

**Android**: <https://github.com/PeaceCorps/peacetrack-android>

**Web Backend Support:** <https://github.com/PeaceCorps/app-web-server>

# BACKGROUND

## Why Reporting Matters

Peace Corps is held accountable for the work Volunteers conduct in the field. This work is reported by Volunteers through the Volunteer Report Form (VRF), which is created and captured through a web portal called the Volunteer Reporting Tool (VRT).

Data collection is vital to:

* Gauge the effectiveness of Volunteers and the programs they support.
* Determine the effectiveness of funds provided by other governmental agencies.
* Engender a sense of accomplishment among the Volunteers, who can look back at data collected after their service as evidence of their work.

## Current Reporting Structure

Peace Corps Volunteers (PCVs) are asked to report on the activities they are undertaking with their communities. **Activities are measured by indicators**. Indicators are the ground level data points that measure Volunteers’ work.

Project Goals*:* Project goal statements articulate intermediate or longer-term outcomes that need to occur to achieve the project’s purpose. Volunteers work on several Goals under their overarching Project during their service.

**e.g.** Community members will adopt behaviors to mitigate the harmful effects of HIV

**e.g.** Teachers will improve their English language proficiency and implement student-centered teaching techniques [Thailand, Education, Goal #1]

Project Objectives***:*** Project objectives articulate the most significant, attributable outcome or outcomes that will result from Volunteer and partner activities, and will contribute to achievement of project goals. Each Project Goal will have several Objectives.

**e.g**. By XXXX, # males will have been circumcised and received post circumcision care.

**e*.g.***Improve Teachers’ Communication Skills:By the end of 2018, 330 teachers will demonstrate improved proficiency in English. [Thailand, Education, Objective 1.1]

Activities***:***Activity statements found in a project framework, one per objective, answer

1. How many Volunteers will conduct work corresponding to each objective,
2. Which set of activities they will undertake to achieve each project objective,
3. Major outputs of the activities (often number of people trained).

**e.g.** Each year, (#) of volunteers will increase awareness of HIV prevention through male circumcision by mobilizing X# of men to get circumcised through conducting a baseline and at least one of the following:

**e.g.** trainings; workshops; referral services; health promotion campaigns; promotion to women's groups; other activities related to male circumcision.

**e.g.** Each year 55 Volunteers will work with 82 teachers, will use more English through daily conversations, co-planning and co-teaching. They will also encourage English teachers to use a higher proportion of English in the classroom. [Thailand, Education, Activity Statement for Objective 1.1]

Indicators***:*** Indicators are statistics or metrics used to gauge project performance. There are two distinct ways indicators are differentiated: Output vs. Outcome and Standard Sector Indicator vs. Post-Defined Indicator. An Indicator is either an Output or an Outcome, and in either case, falls under a bucket of Standard Sector Indicator or Post-Defined Indicator.

|  |  |
| --- | --- |
| **Output (SI)** | **Outcome (SI)** |
| **Output (PDI)** | **Outcome (PDI)** |

1. Outputs- The direct result of project activities. Outputs relate to direct products or deliverables of project activities such as # of peer education sessions completed, number of people reached, and number of materials produced.

**e.g.** # of individuals reached with a message promoting male circumcision as a way to reduce the risk of HIV infection since the last reporting period

**e.g.** Number of teachers who interacted with a Volunteer in English [Thailand, Education, PDI Output Indicator]

1. Outcomes- Effect of project activities on target audience, such as change in knowledge, beliefs, skills, behaviors, and access to services. Projects typically have multiple, sequential outcomes: “short term outcomes” are any changes or benefits associated with changes in knowledge, skills, or attitudes; “intermediate outcomes,” are any changes in behaviors building upon the short-term outcomes; and “longer term outcomes,” or impacts, are longer range and cumulative effect of a project over time such as change in HIV infection, morbidity and mortality; impacts are rarely attributable to a single project. Note that these sequential levels of outcomes for capacity-building activities often match Kirkpatrick training evaluation levels.

**e.g.** # of males circumcised who returned at least once within 14 days of surgery for postoperative follow‐up care or after 7 days for non-surgical circumcision (intermediate-term outcome)

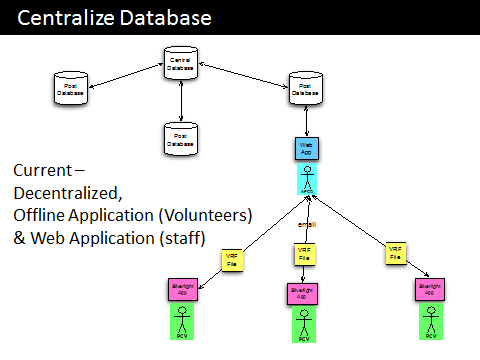
**e.**g. ED-003-A Teachers: English Teacher Proficiency – Number of Teachers, out of the total number of teachers the Volunteer worked with, who conducted a higher proportion of their class procedural language in English [Thailand, Education, SI Outcome Indicator]

1. Standard Sector Indicator (SI)are determined by sector, and remain static across all countries. They allow for standardization in reporting, particularly when reporting is required for external donors or partner organizations If an activity is connected to a Cross-Sector Programming Priority*, i.e. HIV/AIDS for PEPFA; food security for Feed the Future; and Malaria for STOMP Out Malaria*, those indicator metrics are passed along to the corresponding partner organization. Each Post (Country) can include any Standard Sector Indicator in their reporting requirements for each Project and Objective, but are not required to us all SI (An Objective might have five possible indicators, but the post only decides to include two).
   * Standard Sector Indicators are identified using a code. The first set of letters represents the sector, the middle number refers to the particular indicator, and the last letter indicates the particular objective.
     + **e.g.** ED-003-A (ED is for Education; 003 is the indicator number; A is the objective).
2. Post-Defined Indicators are unique for each sector in each country, measuring the outcomes and objectives the Post has determined to be necessary.

There are identifiable trends within the Indicators about *what kind of data* is being collected. A large majority of indicators focus on numbers of people. People can be more narrowly defined – students, teachers, farmers, particular age groups, pregnant women, etc., and are often times measure attendance at an event, but might also be the number completing a predefined activity. Other possible indicator types include: Organizations/Groups/Schools; materials created (lessons, business plans, and campaign materials); systems or practices developed, spread, or improved. Certain sectors may have other specific indicators that do not fall in these categories, but those are very limited in number.

## Current Reporting Workflow

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) “VRT 4.0\_Proposal\_2014.03.24.pptx” in Resources on GitHub.



The current process involves the Volunteer downloading a Silverlight application on a desktop computer to view and complete a Volunteer Report Form (VRF). The VRF is then emailed to the Associate Peace Corps Director (APCD). The APCD uploads the VRFs to the Post (Country) database, and then reviews the VRF to clean any applicable data and provide feedback to Volunteers on their reported work. That database then syncs with a central database.

* APCD/PM needs to create VRFs for each Volunteer in the web app
* APCD/PM then sends these VRFs to Volunteers.
* Volunteers must download Silverlight app onto a computer to open and access VRFs.
* Volunteers can use Silverlight on a personal computer and update the VRF offline between reporting periods.
* After completing their VRFs Volunteers must attach VRF to email and send to APCD.
* APCD then must place VRFs in proper folder and import into the VRT.

This current process is prone to errors and bugs due to how many steps are involved. The VRF is available offline, but only accessible on Windows and Mac; not accessible on iOS, Android, Windows Phone, or Linux.

Peace Corps Volunteers (PCVs) currently have the option of using a 22-page long pen and paper-based "Activity and Outcome Tracking booklet" to keep track of their day-to-day activities in the field.

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) “Activity Tracking Booklet\_2014\_3\_10.docx” in Resources on GitHub.

Examples of the type of data collected by Volunteers:

* Number of students taught in a class.
* Number of local leaders contacted.
* Number of participants at a movie screening.

The paper booklet is difficult to use for its size, susceptibility to damage, and limited utility compared to an electronic means of capturing this information. The result is that activities are not recorded in detail and leave Volunteers to reconstruct data from memory (and thus creating inaccurate records).

Data is reported semi-annually (between two and four times per year), and frequently requires Volunteers to travel to a nearby city to complete their data entry. Volunteers can use the paper booklet to help complete Volunteer Reporting Form (VRF), using the online called the Volunteer Reporting Tool (VRT). Data entry for the entire quarter can take many hours to complete.

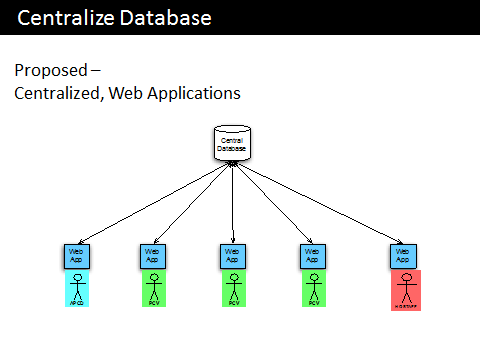
## Desired Workflow

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) “VRT 4.0\_Proposal\_2014.03.24.pptx” in Resources on GitHub.

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) PDF titled “Project Data Framework” for diagram of how the reporting structure is captured.

Peace Corps would like to reduce the steps to submitting Volunteer activity information and indicators. The agency would like to see a flatter reporting structure that allows for direct input by the end user, revision history on the database, and direct access by the staff and Volunteers to the information.

In the proposed diagram below, the proposed reporting structure is flatter and more direct. The diagram depicts the new tool as a mobile-friendly web application. Peace Corps is open to other mobile solutions, including platform-specific applications like the one being requested in this requirements document. The diagram should be interpreted as a representation of the organization’s data structure desires, and is less about the tools to get there. In many cases, it’s important that the Volunteer is able to record and save information about their work offline, and then upload that information later, which is the primary reason we’re calling for a dedicated app.



Introducing a mobile application into the process could:

* Reduce the number of steps in the data submission process.
* Ensure Volunteers record accurate data in a timely fashion since they are less likely to forget their phone or tablet compared to a large paper packet.
* Increase timeliness of information captured.
* Provide data more directly, with less intermediary tools.
* Allow the Volunteer to record their work electronically, even in an offline environment.

# Application Data Structure

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) PDF titled “Project Data Framework” for diagram of how the reporting structure is captured.

Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Reference%20Material) the excel file “Project Framework Indicator List” for the full list of indicators and how they are structured.

These documents contain detailed information about the indicators used by each Country, for each of their sectors. Indicators are identified by Post (country), Sector, Indicator Type (Output/Outcome; PDI/SI), and the indicator definition. The Project Frameworks provide an overview of the reporting structure, while the Indicator List should provide a sortable resource of individual indicators.

The element of the data structure to highlight is that the user only adds Activity information, and connects that activity to the corresponding Objectives (upstream), and the applicable indicators (downstream). If an Objective is selected, at least one indicator connected to that Objective must be added to measure the impact. Additional indicators not related to the specific Objective(s) can also be included.

As mentioned, the list of indicators and what they relate to can change over time. It’s important that the data structure allows for this flexibility.

Additionally, the Agency is going in a direction where Outcomes would be measured on a larger time scale, potentially over the course of many activities, instead of being linked to just 1. This consideration will be important to take into account while building the data structure.

The overarching point of this application is to start with the system the way it exists today, and make it a better experience for the Volunteers by providing them a tool that gives the Agency better data, reduces the reporting burden on Volunteers, and in doing both of those things, can be a catalyst for greater innovation in this process.

# FUNCTIONAL REQUIREMENTS:

## Set Up

* The application should prompt the user for their name, contact information, country, and sector to set up the application.
* Based on country and sector inputs, the application should download a portion of the project framework database, including indicators, to allow for offline data entry with the minimal amount of bandwidth used.

## Activity Data Entry

* User needs to record their activity and add data quickly. **This is the most important priority.**
* Activities need to be set up to correspond to the 4 types of Activities a Volunteer can conduct (Linear, Evolution, Franchise, Solitary).
  + Resource: [See](https://github.com/PeaceCorps/peacetrack-readme/tree/master/Volunteer%20Reporting%20Tool%20-%20Data%20Structure) “4 Types of Activities Diagram” on GitHub.
* Based on initial application set up, the user should provide basic information to the application that makes data entry easier, including Country and Sector. If a user enters the sector (Health, Education, …) the corresponding indicators will be filtered to ones that apply to that work.
* Activities should easily connect to upstream Objectives.
* Activities should easily connect to downstream Indicators (Standard Sector Indicators comprised of Outputs and Outcomes, as well as Post-developed Indicators).
* Multiple Activities need to be able to be linked together to indicate that they are working toward the same objective, so that if a different volunteer takes over, the system knows it’s the same activity.

## Data Sync

* Data needs to be entered offline and stored locally on the device.
* The application should support updates to both the raw data on indicators from a web server, as well as changes to the data structure as applicable.
* The application data structure needs to be flexible enough so that when Peace Corps or affiliated organizations add/remove/change indicators, the application can adapt and treat legacy data in a non-destructive manner.
* The application must be able to export the data collected in machine-readable and standard formats, including CSV.
* Data should be exportable both by Project and by Indicator. Users will be asked at the end of the day how many people were trained on X that were between the ages of Z and Y. Providing that data easily is important.
* x activities.

# DOWN THE ROAD IDEAS:

* Direct sync and download ability to the main VRT database, without intermediary CSV export and import.
* Ability for Volunteers to see the aggregated effort of multiple Volunteers to achieve their Project’s objectives.
* Ability for Volunteers to report shared activities when they collaborate with other Volunteers. Currently, the VRF lets Volunteers record the activities they may do with other Volunteers, but only one person gets to report the ‘results’ – this way there isn’t double-counting. Volunteers, however, have to rely on their notes to remember what results were achieved (i.e., it’s not recorded in their VRF file for reference later, post-Peace Corps). Volunteers should get credit for the work they accomplish in tandem with other Volunteers and be able to review that record, even if they were not the point person.
* Ability for Volunteers to see activities from Volunteers working in their community before them and, possibly, continue reporting on results achieved by the same participants