Synchronization Module

Introduction

The synchronization module provides important functionality to the overall disaster management process. Its purpose is to effectively transport the huge amount of data in a particular Sahana installation to another Sahana installation, with merging.

This capability can be vital, particularly when a disaster destroys the communication infrastructure, preventing relief workers and others from interacting via an electronic telecommunication medium. In that situation, a manager supporting field operations can obtain the Sahana data from a major disaster management center, and deploy that data into a Sahana instance residing on a laptop or other mobile device or computer, destined for the field. When the field worker returns to the disaster management center, the cumulative data, including that newly gathered in the field, can be uploaded/synchronized. As part of synchronization, the receiving Sahana instance in the center will first automatically check the difference between its own database and the uploaded data. Differences found are extracted, and applied to the main Sahana installation.

This module helps not only when the communication is limited, but when relief workers want to integrate two different Sahana installations. [Is bi-directional synchronization supported?] This achieves consistency and allows teams to work as if they are using one database. Scenario-based guidelines for the synchronization module can be found here (http://wiki.sahana.lk /doku.php?id=doc:sync:english&rev=1193907698) .
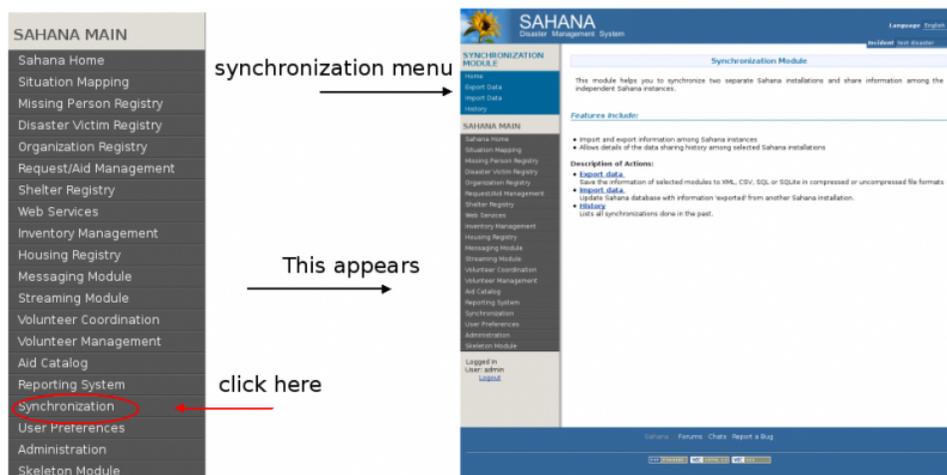
This module can be helpful when cloning a database of professional resume services (http://cvresumewritingservices.org/professional-resume.php) . (Another alternative: the Snapshot module.)

Coming Soon

New work on the Synchronization of Sahana Servers via peer-to-peer (P2P) transport is being undertaken as part of the Google Summer of Code 2009 by student Hasanat Kazmi and mentor Fran Boon. A conceptual blueprint (http://trac.sahanapy.org /wiki/BluePrintSynchronisation) is being refined, and the choice of technology and form are under active discussion.

Getting Started with the Synchronization Module

Click on the **Synchronization** link in the Sahana Main menu. The Synchronization Module menu will then appear above the Main menu.

Synchronization Menu

Home

This link directs the user to the Synchronization module main window.

Export Data

Using this link, the user can get a copy (i.e., a "data dump") of the Sahana database or a part of it. The **Export Data** window contains three tabs, **Select Data**, **File Type**, and **Compression Type**, to specify what type of data copy is desired. After applying the appropriate settings, click on the Export button, and indicate where to save the file.

NOTE : Before clicking on the Export button, make sure to navigate through all 3 tabs. Otherwise, the default settings will be applied to your data copy, which may not match your expected purpose.

Select Data. The user can choose the data required from the Sahana database. The database content has been divided into several categories, from which one can select a subset or (with the **Select All** button) all categories. The **Clear** button removes all the check-marks.

Export Data

Export

Select Data | File Type | Compression Type

The following list shows the data which are available to export. Use the check boxes to select or deselect data you want to export. If the data you select has dependent data, they would be automatically added to export file.

GIS Data ☑
Catalog System ☑
Organization Registry ☑
Disaster Victim Registry ☑
Missing Person Registry ☑
Request Management System ☑   The base data of the system ☑
Inventory Data ☑
Shelter Data ☑

Select All | Clear

File Type. The type of the file desired for the data copy. First consider the planned transfer media and intended use, then choose the appropriate type. "CSV" means "comma-separated values", and is often best if transferring to non-Sahana applications.

Export Data

Export

Select Data | **File Type** | Compression Type

The data can be exported in the following formats please select the format you want to export.

XML File ⦿
CSV File ○
SQL File ○
SQLite File ○

Compression Type. When the data copied is huge, uncompressed transfer can be time-consuming and in other ways difficult. If you anticipate this, apply compression to save much time and file space.

Export Data

Export

Select Data | File Type | **Compression Type**

The export file can be compressed using the formats in the list bellow. Select 'None' if you do not want the file to be compressed. **Important:**Compressing the export file will reduce the download time significantly.

None ○
Gzip ⦿
Bzip2 ○
Zip ○

Import Data

Simply browse and select the data file to be imported (obtained from another Sahana installation, by **Export Data**, as described above) and click OK. Then click on the **Next** button and in the next window click on the **Import** button. This action will inspect the differences between the database and data copy (dump file) and update the database as mentioned in the Introduction section.

If instead the user wants to erase all the data in the database and fill the empty database using the dump file data, click on the **Advance Option** link to the left of the **Import** button and select **Yes** (default is No). Then click **Import**.

Upload File

Upload Sahana Dump File

Upload a data file you want to import. *important:* This system will only accept data files which have been exported by Sahana Instances.

File [_____] Browse...

Next

Import File

✓ **The file was uploaded successfully...**
  • The information about the uploaded file are given bellow.

Upload File Info	
Name	sahana_data_dump_inf5_1202891648.xml.gz
Type	application/x-gzip
Size	7.909 kb
Time Created	February 13, 2008, 2:04 pm
Dump Instance	inf5

Advance Options Import

Advance Options Import

Advance Options

Overwrite existing data   Yes

History

This shows details about the imported dump files, and allows an overview about the state of the database and how often the data is synchronized between different Sahana installations.

Synchronization History

Instance ID	Owner	Contacts	Last Update	Update Count
inf5	chamara	chamaracal@gmail.com , 0716185465	2008-02-13 14:04:07	3

NOTE : All the activities mentioned above can be done by using the links on the Synchronization home page.