Title: Backing up REDCap Projects and Data	Area: REDCap
	Version No.: 1.0
	Document Type: SOP
Owner: WE-SPARK Health Institute	Initial Issue Date: 29-Nov-2022
	Effective Date: 29-Nov-2022
	Pages: 10

1.0 Procedure Description

This Standard Operation Procedure (SOP) highlights options for WE-SPARK REDCap Users to back up their projects and data.

2.0 Persons Affected

Applies to all REDCap Users.

3.0 Procedures

While the technical environment is backed up at the system level by UWindsor Information Technology Services (ITS) for the purpose of disaster recovery, it is incumbent on the REDCap Project Manager to retain a local copy of their project as a precaution against file corruption or user error. There are several ways to back up your REDCap project.
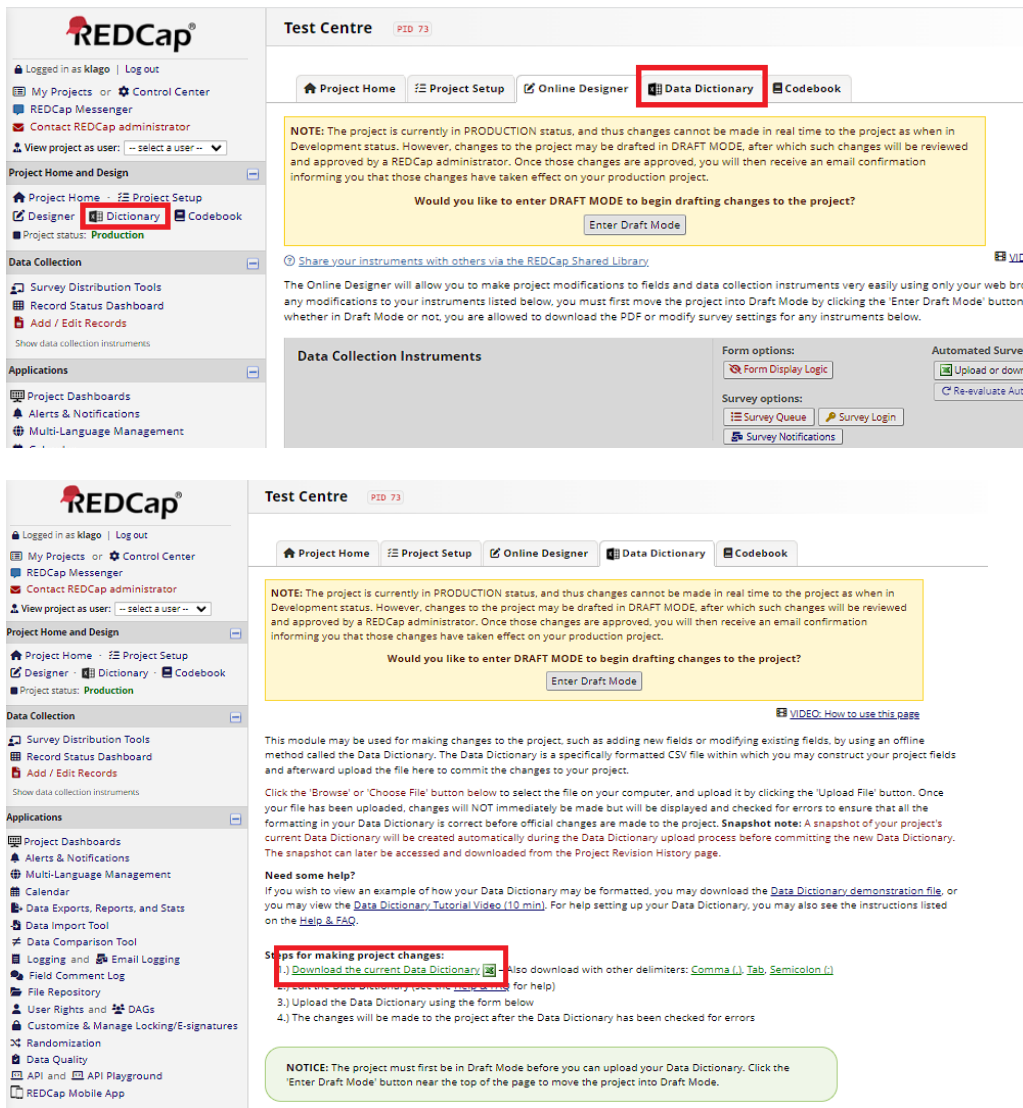
3.1 Data Dictionary Method

REDCap data dictionaries contain all the **metadata** associated with the data collection instruments in an individual project. **They do not contain record data.** Users can access their data dictionary from the "Dictionary" option under "Project Home and Design" in the left-hand menu. It can also be accessed through the "Data Dictionary Tab" at the top of the "Project Home and Design" menu.

Once in the Data Dictionary page, there is an option to download the current data dictionary under "Steps for making project changes". Click "Download the current Data Dictionary". This will by default download a .csv file containing all the project fields contained in the data collection instruments. This file can then be used to upload into a new REDCap project to restore it via the "Upload your Data Dictionary file" option on this page.
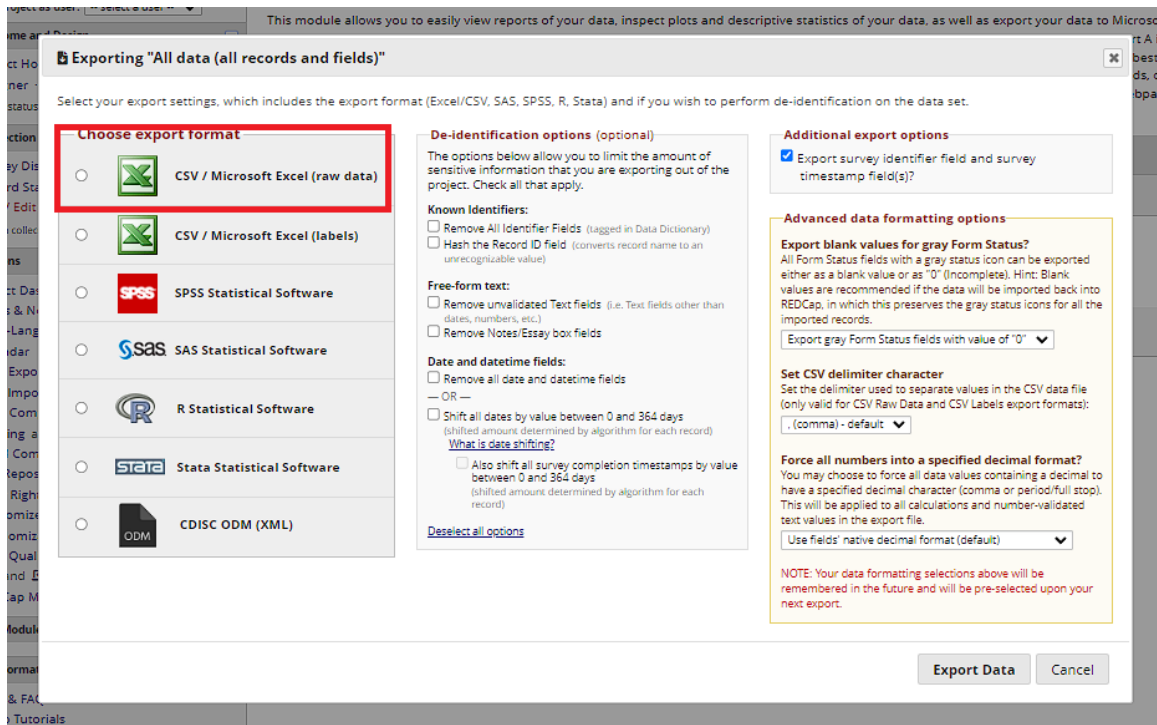
3.2 Data Export Method

The Data Export Module allows users to export project data into Microsoft Excel, SAS, Stata, R, or SPSS. Users can specify which data they pull from the project as well. Users must have the appropriate user data export rights within a project to pull data from each data collection instrument. If you are unable to export data, consult the owner of your project.

If your project contains identifier fields, for the purposes of backing up your data, you should export the full data set. Once project data with identifying information is exported from REDCap, it is on the user to ensure that data is stored appropriately in a secure location.

Users can complete a full data export by accessing the "Data Exports, Reports and Stats" module in the left-hand applications menu. They can then download all project data by selecting "Export Data". Users will then specify the file format that they would like to store the data in. If users are exporting data to protect against corrupted files or user error, it is recommended to export in Excel CSV format. This file can be used with the data import template in the "Data Import Tool" module to restore project data.

3.3 XML Backup Method (Metadata AND Data Backup - Recommended)

The simplest method to backup both project metadata and data is via the REDCap XML backup method. An eXtenisble Markup Language (XML) file is a markup language and file format for storing, transmitting, and constructing arbitrary data. REDCap XML backups will store an entire project and its settings within one .xml file.
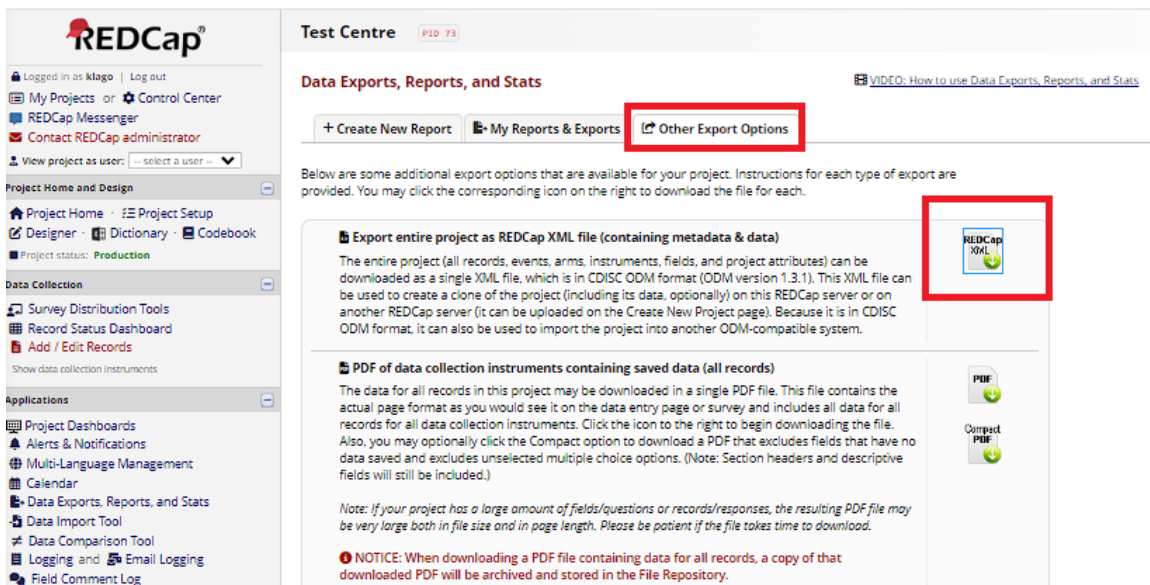
However, the .xml file is not utilizable in the same way that excel files are. This method is only recommended if you want to restore your project specifically in REDCap.

Users can download their REDCap XML backup via the "Other Export Options in the "Data Exports, Reports and Stats" module. Users can then select the "REDCap XML" button. This will bring up a menu to specify their XML backup. This can also be accessed through the "Other Functionality Tab" in the "Project Home and Design Menu". There is an option to download metadata only or both metadata & data on this page.

Users can then use the XML file to restore a project and it's data by creating a new project in the main menu. Select "New Project" and for "Project creation options" select "Upload a REDCap project XML file". Upload the XML file and your project will now appear restored with all of your data and data collection instruments in REDCap.

4. <u>When to Backup your Project and Data</u>

It is up to the discretion of the project team to decide when to back up project data. It is recommended that users backup their projects and data atleast once per week during the data collection phase. This helps prevent data loss in the event of a disaster or user error.

5. <u>Production Status Snapshots</u>

For the WE-SPARK Health Instance of REDCap, "Production Status" signifies that a project has been completed, thoroughly tested and is ready for the collection of real participant data.
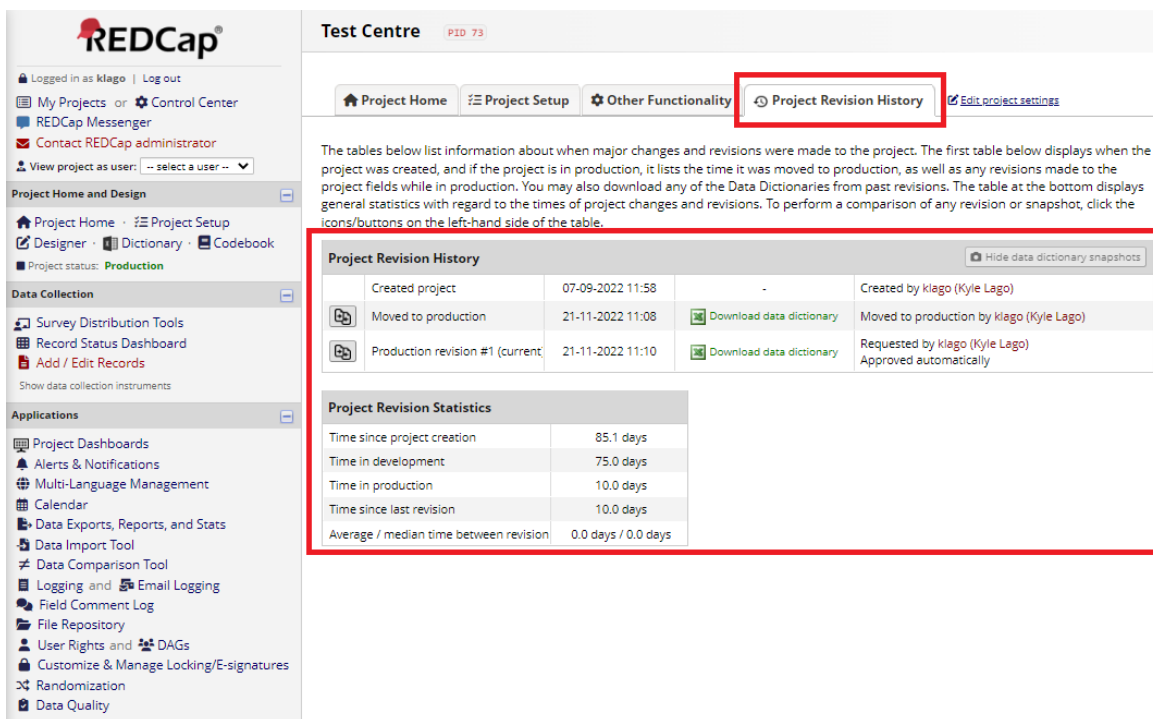
When a project is approved to move into production status, a snapshot is created of the current data dictionary and saved to the project. Subsequent changes can be made to the project in "Draft Mode" and then submitted for approval by an administrator. If approved, this will create a new snapshot of the data dictionary including those changes. This allows users to download previous data dictionaries if they wish to revert their projects back to a previous version, and may be useful for users. **This does not save participant data, rather only data dictionaries.**

These snapshots can be found under the "Project Revision History" tab in the "Project Home and Design" menu when a project is in production status.

5.0 Review/Revision History

Date	Revision No.	Revision Type (Minor edit, moderate revision, complete revision)	Reference Section(s)
2022-Nov-29	1.0	New SOP	