Custom Record Auto-Numbering External Module User Guide

Background: Normal REDCap behavior dictates that having auto-numbering enabled in a project makes the first record created have a record ID of 1, the second record created have an ID of 2, the third record created have a record ID of 3, and so on. If the project is using DAGs (Data Entry Groups), having auto-numbering enabled will automatically have its record name prepended with the Group ID (DAG ID) number and a dash/hyphen. For example, the first three records IDs created for DAG ID 98 will get automatically named 98-1, 98-2, and 98-3.

Description: This module allows users to create a custom record auto-numbering schema for their REDCap project, such as having the first record ID created start at 1000 or 001 instead of 1, append all record IDs with a prefix (ABC-1, ABC-2, ABC-3, etc.), or having the DAG name appear in the record ID (UF-1, UF-2, UF-3) instead of the DAG ID (98-1, 98-2, 98-3, etc.) when utilizing DAGs in a project.

Limitations:

- The custom record auto-numbering system only applies to records *created* by a loggedin user, i.e. not via a public survey or API/CSV data import.
- The module works best when enabled and configured *before* the first record has been created in the project, especially when using options 1, 2 or 3 listed below.
- This module will *not* automatically convert existing records to the project's newly defined record ID schema; it only applies to *new* records that are created, by a logged-in user, once the module is enabled.

The Custom Record Auto-Numbering options available in this module are:

- 1) Integer increment from a specified start value
- 2) Padded integer increment with prefix
- 3) Increment within DAG using part of the DAG name
- 4) Date/time in selected format
- 5) Unix timestamp (16 digits)

Integer increment from a specified start value

- This option allows users to specify the first numerical record ID. Subsequent record IDs will increment from this project-wide (even for users in a DAG).
- This is useful when you want your first record ID to start with any integer besides 1, including padding the 1 to become 001.

Padded integer increment with prefix

• This option allows users to specify a prefix to the project's record IDs and configure the padding length, prepending the ID with zeros to achieve the desired length. Subsequent record IDs will increment from this project-wide (even for users in a DAG).

• This is useful when you want you need to create study-specific record IDs, such as ABC-001, ABC-002, ABC-003, etc.

Increment within DAG using part of the DAG name

- This option lets users create a DAG-specific prefix to the record IDs in the project, when DAGs are used in a project. This option gives users the ability to use 1-5 characters from the beginning or the end of the DAG as part of the record ID.
- This is useful when you need to create DAG-specific record IDs, such as UFL-1, UFL-2, UW-1, UW-2, USF-1, USF-2, etc.
- <u>Useful tip</u>: if you want the prefixed DAG ID to be "UFL" you can name the DAG "University of Florida UFL" and specify you want the last 3 letters of the DAG name to be used in the prefix.

Date/time in selected format

- This option will create a record ID based upon the date and time a record was created.
- <u>Note</u>: Since dates are PHI, do not use this option if all data is supposed to be deidentified.

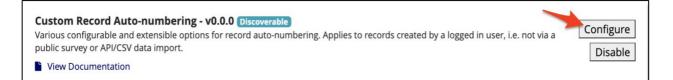
Unix timestamp (16 digits)

- This option will create a record ID based upon a Unix timestamp. A Unix timestamp is the number of seconds since January 1st, 1970 (UCT).
- See: <u>https://www.unixtimestamp.com/</u> for more information about Unix timestamps.

Module Configuration

Once the module has been enabled in your project, go to the *External Modules* page (under Applications) to configure the module.

1) Click on Configure:



2) Select the Record auto-numbering option you want to use from the dropdown list:

Configure Module: Custom Record Auto-numbering		×
Project: autonumb test Settings	Values	
Options for record autonumbering in this p	project.	
Record auto-numbering option: * must provide value		
	Cancel	Save

Configure Module: Custom Record Auto-numbering		×
Project: autonumb test Settings	Values	
Options for record autonumbering in th	nis project.	
Record auto-numbering option: * must provide value	 Integer increment from specifed start value Padded integer increment with prefix Increment within DAG using part of DAG name Date/time in selected format Unix timestamp (16 digits) A project-specific custom auto-numbering schema 	Cancel Save

3) Configure your settings based upon the option you chose.

Example 1: *Integer increment from a specified start value*: having the first record ID start with 1000.

Configure Module: Custom Record Auto-numbering		×
Project: autonumb test Settings	Values	
Options for record autonumbering in this project.		
Record auto-numbering option: * must provide value	Integer increment from specifed start 🗸	
Specify the first record id. Subsequent ids will increment from this project-wide (even for users in a DAG): * must provide value	1000	
	Cancel	Save

The first record saved in the project will be given the record ID of 1000:

Editing existing Study ID 1000	
Event Name: Baseline survey	
Studie ID	1000
Study ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .
Visit date	😬 2021-03-12 🛅 Today Y-M-D

The second record saved in the project will be given the record ID of 1001, and so on...

Editing existing Study ID 1001	
Event Name: Baseline survey	
Study ID	1001 To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .
Visit date	H 2021-03-12 Today Y-M-D

Example 2: *Padded Integer increment with prefix*: specify a prefix to the project's record IDs and configure the padding (in zeros) length.

Configure Module: Custo	m Record Auto-numbering	×
Project: autonumb test Settings	Values	
Options for record autonumbering in this pr	roject.	
Record auto-numbering option: * must provide value	Padded integer increment with prefix	
Specify a fixed prefix (can be blank):	ABC	
Padding (with zeros) length: * must provide value	2 digits 01 - 99, 100, 101,	
	Ca	ncel Save

The first record saved in the project will be given the record ID of ABC (prefix entered above) with a 1 or 01 or 001, depending on the amount of padding you chose.

ABC01
To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

The second record saved in the project will be given the record ID of ABC (prefix entered above) with a 2 or 02 or 002, depending on the amount of padding you chose.

	ABC02
Study ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

You can also specify other characters, such as a dash, to appear before the record number by specifying the prefix to be "ABC-"

	ABC-01
Study ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

	ABC-02
Study ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

Example 3: *Increment within DAG using part of the DAG name*: specify a DAG prefix to the project's record IDs and configure the padding (in zeros) length.

		
Project: autonumb test		
Settings	Values	
Options for record autonumbering in this project.		
Record auto-numbering option: * must provide value	Increment within DAG using part of D/ \checkmark	
Specify the characters to extract from DAG full name: * must provide value	First two characters	
Specify the character(s) to use as separator between DAG part and incrementing part (e.g. "-"; can be blank):	-	
Specify the length of the incrementing part (will begin at 1 and be left-padded with zeros, overflows to additional digits): * must provide value	1 digit 1 - 9, 10, 11,	
Examples:		
DAG names: "Royal Children's RCH", "Children's Hospital Westn Settings: Last 3 chars; - separator; 3 incrementing digits Auto-numbering: RCH-001, RCH-002,; CHW-001, CHW-002,		
DAG names: "11 RCH", "12 CHW" Settings: First 2 chars; no separator; 4 incrementing digits Auto-numbering: 110001, 110002,; 120001, 120002,		
	Cancel	Sav

This option can only be used if Data Access Groups are used in a project.

First, specify the characters to extract from the <u>full</u> DAG name listed on the Data Access groups page:

Data Access Groups
Miami
UF
UW

Record auto-numbering option: * must provide value	Increment within DAG using part of D/ V
Specify the characters to outrast from DAC full comes	First character
Specify the characters to extract from DAG full name: * must provide value	✓ First two characters
	First three characters
Specify the character(s) to use as separator between DAG part and incrementing part (e.g. "-"; can be blank):	First four characters First five characters Last character Last two characters
Specify the length of the incrementing part (will begin at 1 and be left-padded with zeros, overflows to additional digits): * must provide value	Last three characters Last four characters Last five characters Use Group ID Use DAG unique name

<u>Note</u>: If you want the DAG name for UF to be "UF," either name the DAG "UF" (and chose *First 2 characters*) or add "UF" at the end of the DAG name, i.e., "University of Florida - UF" and chose *Last two characters*. Also, make sure two DAG names will not have the same first or last characters.

Second, specify the character(s) to use as separator between DAG part and incrementing part (e.g. "-").

Third, specify the length of the incrementing part (will begin at 1 and be left-padded with zeros).

In the example below, there is a DAG named "UW." The character separator is "-" and the padding is set to one digit. This is the third record created in this DAG, hence the record ID of UW-3.

	UW-3	UW-3
St	udy ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

Example 4: *Date/time in selected format*: this will create record IDs based upon the date and time the record was initially saved.

Configure Module: Custom Record Auto-numbering		×
Project: autonumb test Settings	Values	
Options for record autonumbering in this project.		
Record auto-numbering option: * must provide value	Date/time in selected format	
Specify the required datetime format using a PHP datetime format string (e.g. "Y-m-d H:i:s"; "YmdHis") : * must provide value	Y-m-d H:i:s	
	Cancel	Save

For this record, the study ID is the date and time the record was first saved in Y-M-D HH:MM:SS format:

a	2021-03-19 11:39:10
Study ID	To rename the record, see the record action drop-down at top of the Record Home Page.

<u>Note</u>: Dates are PHI so do not use this option if you are not allowed to collect PHI in a project.

Example 5: *Unix timestamp (16 digits):* this will create record IDs based upon the date and time the record was initially saved, but in Unix form.

Configure Module: Custom Record Auto-numbering		×
Project: autonumb test Settings	Values	
Options for record autonumbering in this project.		
Record auto-numbering option: * must provide value	Unix timestamp (16 digits) 🗸	
		Cancel Save

The Unix time stamp is a way to track time as a running total of seconds. This count starts at the Unix Epoch on January 1st, 1970 at UTC. Therefore, the Unix time stamp is merely the number of seconds between a particular date and the Unix Epoch. As this is UTC time, this number is not sensitive to the time zone of the server or the client. This is very useful to computer systems for tracking and sorting dated information in dynamic and distributed applications both online and client side.

	1616168397160841
Study ID	To rename the record, see the record action drop-down at top of the <u>Record Home Page</u> .

When you enter "1616168397160841" into the Unix time conversion application, you can determine that the record below was created on Friday, March 19th, 2021 at 11:39:57 (see below).

Enter a Timestamp

1616168397160841

Supports Unix timestamps in seconds, milliseconds, microseconds and nanoseconds.

$\textbf{Convert} \rightarrow$

Format	Microseconds (1/1,000,000 second)
GMT	Fri Mar 19 2021 15:39:57 GMT+0000
Your Time Zone	Fri Mar 19 2021 11:39:57 GMT-0400 (Eastern Daylight Time)
Relative	an hour ago