

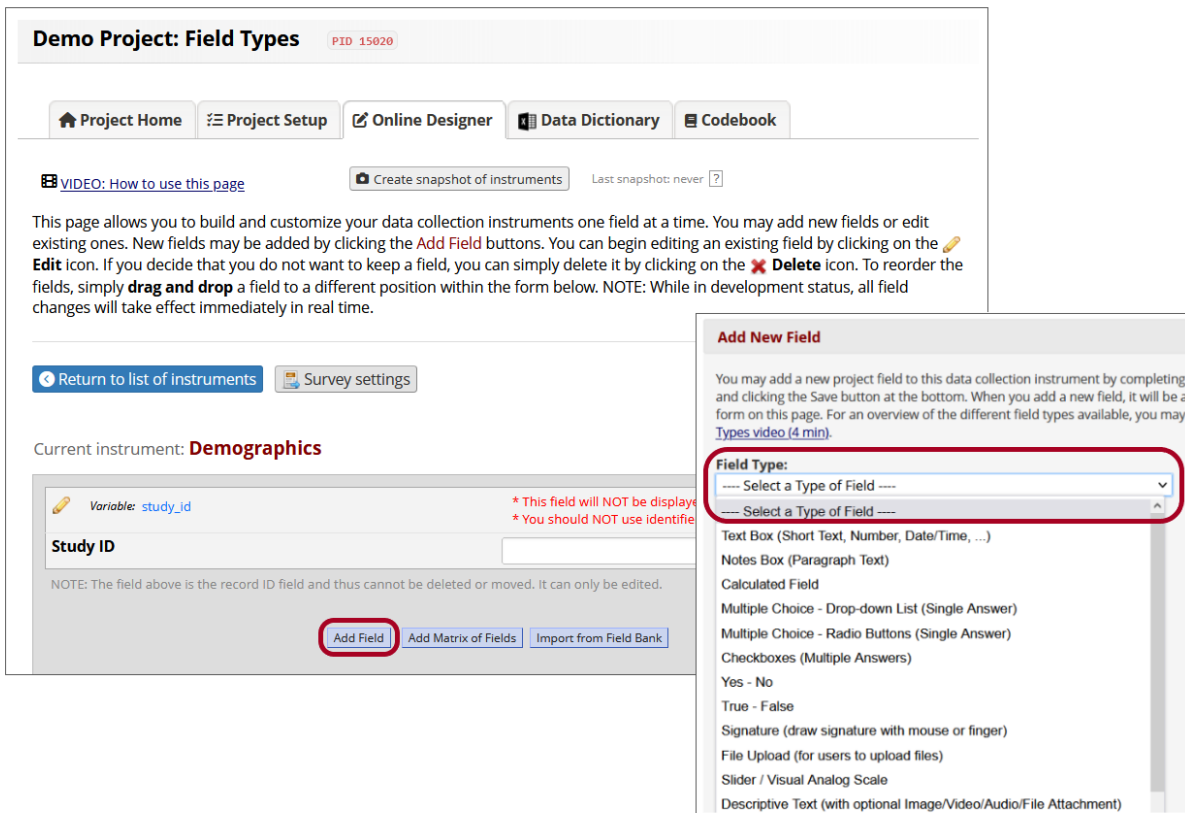
Field Types

CCTS Biostatistics Core

May 2024

Introduction

Data collection instruments in REDCap are made up of fields that collect or display different types of data. Define a field's type when it is created.



All field types have the following components:

1. A **variable name** made up of numbers, letters, and underscores (no spaces, dashes, or other special characters). The variable name should be short and meaningful. It will be used to refer to the field in calculations and branching logic and will correspond to the column name in data exports.
2. A **field label**. The content in this section will be displayed on the form or survey page above, beside, or as part of the field. Use the Rich Text Editor or raw HTML to format the label. See the [Survey Styling page](#) for more guidance on customizing your instruments.

Additional field options depend on the field type.

Field Type: Notes Box (Paragraph Text)

Question Number (optional)

Displayed only on the survey page

Field Label Use the Rich Text Editor

Open Sans,-a... Paragraph 10pt B I U A

Please describe.

Variable Name (utilized in logic, ca)

ONLY letters, numbers, and underscores

How to use Smart Variables

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (C)

Custom Alignment Left / Vert

Tip: Create a new project from a template to see examples of many field types, including open-text, multiple-choice, and checkbox fields.

+ Create a new REDCap Project

You may begin the creation of a new REDCap project on your own by completing the form below and clicking the Create Project button at the bottom.

Project title:

Project's purpose:

How will it be used?

Assign project to a Project Folder?

Project notes (optional):

Description of the project's use or purpose (displayed on the My Projects page)

Project creation option:

Empty project (blank slate)

Upload a REDCap project XML file (CDISC ODM format)

Use a template (choose one below)

★ **Choose a project template**

select template	Template title (sorted by title)	Template description
<input type="radio"/>	Basic Demography	Contains a single data collection instrument to capture
<input type="radio"/>	Biological Consent Template with Additional Elements and HIPAA drop in text	Provided by UIC CCTS (4/24/20)

Field Types

Open-Text Fields

Text Box (Short Text, Number, Date/Time, ...) A text box is a short, single-line field where users can input text or numbers. Text boxes might be unvalidated, with no restrictions on the type of values that can be entered, or validated, with restrictions on the response format.

The screenshot shows the configuration panel for a Text Box field in the Online Designer. The 'Field Type' is 'Text Box (Short Text, Number, Date/Time, ...)'. The 'Variable Name' is 'first_name'. The 'Validation?' dropdown is set to 'None'. The 'Required?' checkbox is checked. The 'Field Label' is 'First Name'. The 'Action Tags / Field Annotation' section is empty. The 'Custom Alignment' is set to 'Right / Vertical (RV)'. The 'Field Note' is empty.

Online Designer

The screenshot shows the rendered survey page. The text box field is labeled 'First Name' and is ready for user input.

Survey Page

Validation Select a validation type to limit what values can be entered into a text box. Built-in validation formats include:

- Date or date/time (multiple formats available)
- Integer or number with a set number of decimal places
- Email address, phone number, or zipcode
- Social security number or MRN

The screenshot shows the configuration panel for a Text Box field with validation. The 'Field Type' is 'Text Box (Short Text, Number, Date/Time, ...)'. The 'Variable Name' is 'telephone_1'. The 'Validation?' dropdown is set to 'Phone (North America)'. The 'Required?' checkbox is checked. The 'Field Label' is 'Phone number'. The 'Action Tags / Field Annotation' section is empty. The 'Custom Alignment' is set to 'Right / Vertical (RV)'. The 'Field Note' is empty.

If an entered value doesn't conform to the field validation, respondents will get a popup alert.

Alert ✕

This field must be a 10 digit U.S. phone number (like 415 555 1212).
Please re-enter it now.

Close

Identifiers You may use text boxes to collect identifying information, such as name, birth date, or medical record number. Designate a field as an identifier to allow restrictions on when data will be accessible. For example, you can limit access to identifiers via the User Rights page or exclude these fields from certain types of reports, email alerts, and data extracts.

Variable Name (utilized in logic, calcs, and exports)

last_name Enable auto naming of variable based upon its Field Label?

ONLY letters, numbers, and underscores

How to use [⚡] Smart Variables [🔗] Piping [+] Field Embedding

Validation? (optional) ---- None ----

– or –

-- select ontology service --

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Biomedical Ontologies Enable a biomedical ontology on a text box to allow real-time search of an external dictionary or code list such as ICD 10 or SNOMED CT.

The image shows two parts of the 'Online Designer' interface. On the left is a configuration panel for a variable named 'icd10_code'. It includes a 'Variable Name' field with the value 'icd10_code', a checkbox for 'Enable auto naming of variable based upon its Field Label?', and a note 'ONLY letters, numbers, and underscores'. Below this are buttons for 'Smart Variables', 'Piping', and 'Field Embedding'. A 'Validation?' dropdown is set to 'None'. There is a section for 'BioPortal Ontology Service' with a dropdown menu. The 'Enable searching within a biomedical ontology' checkbox is checked, and the dropdown below it is set to 'ICD10 - International Classification of Diseases, Ver'. On the right is a search dropdown menu titled 'ICD 10'. The search input contains 'postpartum' and shows a list of results: [Z39] Postpartum care and examination, [O90.4] Postpartum acute renal failure, [O72.3] Postpartum coagulation defects, [O90.5] Postpartum thyroiditis, [O72] Postpartum haemorrhage, [O71.2] Postpartum inversion of uterus, [Z39.2] Routine postpartum follow-up, [O72.2] Delayed and secondary postpartum haemorrhage, and [O72.1] Other immediate postpartum haemorrhage.

Online Designer

Survey Page

Notes Box (Paragraph Text) A notes box is a large text box with room for a longer response. By default, notes boxes collect plain text. To allow respondents to apply text formatting or insert hyperlinks, images, and attachments, you can use the @RICHTEXT action tag. See the [Action Tag page](#) for more information.

The image displays two examples of text input fields. The top example is a plain-text notes box with a light gray header containing the text "Please describe." and a large white text area below it. The text "Plain-text notes box" is centered in the white area. A small "Expand" button is located in the bottom right corner of the header. The bottom example is a rich-text notes box, also with a light gray header containing "Please describe.". Below the header is a rich text editor toolbar with various icons for font style (Open Sans, Paragraph, 10pt), bold (B), italic (I), underline (U), text color (A), and background color. Below the toolbar is a large white text area containing the text "Rich-text notes box".

Multiple-Choice and Checkbox Fields

Multiple-Choice - Drop-down List (Single Answer) Drop-down fields allow respondents to select one option from a list.

Include the question or prompt in the Field Label box and each response option in the Choices box. Each choice must be listed on a separate line in the format `choice-value, Choice Label`. Choice values (i.e., codes) may be numerals, letters, or alphanumeric strings. The choice labels will be displayed on your form or survey, while the values will be stored in the REDCap database.

Field Type: Multiple Choice - Drop-down List (Single Answer)

Question Number (optional)

Field Label Use the Rich Text Editor

Choices (one choice per line) [Copy existing choices](#)

- 0, American Indian/Alaska Native
- 1, Asian
- 2, Native Hawaiian or Other Pacific Islander
- 3, Black or African American
- 4, White
- 5, More Than One Race
- 6, Unknown / Not Reported

Variable Name (utilized in logic, calcs, and exports)
 Enable auto naming of variable based upon its Field Label?
ONLY letters, numbers, and underscores

How to use [Smart Variables](#) [Piping](#) [Field Embedding](#)

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Right / Vertical (RV)

Survey Page

Race

- American Indian/Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Black or African American
- White
- More Than One Race
- Unknown / Not Reported

Online Designer

Tip: Choice values don't need to be listed in numeric or alphabetical order. If you need to change the display order of an existing field, you can do this without breaking the connection between existing choice values and labels.

Field Label

Race

Choices (one choice per line) [Copy existing choices](#)

- 0, American Indian/Alaska Native
- 1, Asian
- 2, Native Hawaiian or Other Pacific Islander
- 3, Black or African American
- 4, White
- 5, More Than One Race

→

Field Label

Race

Choices (one choice per line) [Copy existing choices](#)

- 3, Black or African American
- 4, White
- 1, Asian
- 2, Native Hawaiian or Other Pacific Islander
- 0, American Indian/Alaska Native
- 5, More Than One Race

Multiple-Choice - Radio Buttons (Single Answer) Include the question or prompt in the Field Label box and each response option in the Choices box. Each choice must be listed on a separate line in the format choice-value, Choice Label. Choice values may be numerals, letters, or alphanumeric strings. The choice labels will be displayed on your form or survey, while the values will be stored in the REDCap database.

Field Type: Multiple Choice - Radio Buttons (Single Answer)

Question Number (optional) []
Displayed only on the survey page

Field Label [] Use the Rich Text Editor [?]
Ethnicity

Choices (one choice per line) [Copy existing choices](#)
0, Hispanic or Latino
1, NOT Hispanic or Latino
2, Unknown / Not Reported

Variable Name (utilized in logic, calcs, and exports)
ethnicity [] Enable auto naming of variable based upon its Field Label?

ONLY letters, numbers, and underscores

How to use: [Smart Variables](#) [Piping](#) [Field Embedding](#)

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Left / Horizontal (LH) [v]
Align the position of the field on the page

Field Note (optional) []
Small reminder text displayed underneath field

Ethnicity
 Hispanic or Latino NOT Hispanic or Latino Unknown / Not Reported

Online Designer

Survey Page

Checkboxes (Multiple Answers) Checkbox fields allow respondents to select multiple options.

Include the question or prompt in the Field Label box and each response option in the Choices box. Each choice must be listed on a separate line in the format `choice-value, Choice Label`. Choice values may be numerals, letters, or alphanumeric strings.

Field Type: Checkboxes (Multiple Answers)

Question Number (optional) []
Displayed only on the survey page

Field Label [] Use the Rich Text Editor [?]
Is patient taking any of the following medications? (check all that apply)

Choices (one choice per line) [Copy existing choices](#)
1, Lexapro
2, Celexa
3, Prozac
4, Paxil
5, Zolofit

Variable Name (utilized in logic, calcs, and exports)
meds [] Enable auto naming of variable based upon its Field Label?

ONLY letters, numbers, and underscores

How to use: [Smart Variables](#) [Piping](#) [Field Embedding](#)

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Right / Vertical (RV) [v]
Align the position of the field on the page

Field Note (optional) []
Small reminder text displayed underneath field

Is patient taking any of the following medications? (check all that apply)
 Lexapro
 Celexa
 Prozac
 Paxil
 Zolofit

Online Designer

Survey Page

When responses are stored in the REDCap database, they are expanded to separate variables for each choice. Variable names take the form `fieldname__choicevalue`. For each expanded variable, responses will have a value of 0, meaning not checked, or 1, meaning checked. For example, the `meds` field in the example above has the following choices:

- 1, Lexapro
- 2, Celexa
- 3, Prozac
- 4, Paxil

5, Zoloft

Responses are stored as variables with the following names:

meds___1
 meds___2
 meds___3
 meds___4
 meds___5

A record will have values of 0 for the variables corresponding to unchecked choices and values of 1 for the variables corresponding to checked choices.

Is patient taking any of the following medications? (check all that apply)

Lexapro
 Celexa
 Prozac
 Paxil
 Zoloft

Survey Page

	A	B	C	D	E	F
1	study_id	meds___1	meds___2	meds___3	meds___4	meds___5
2	101	0	0	1	1	0

Data Export

Yes-No Yes-No fields are multiple-choice (radio) fields with the built-in options:

1, Yes
 0, No

True-False True-False fields are multiple-choice (radio) fields with the built-in options:

1, True
 0, False

Matrix of Fields A matrix allows compact display of multiple radio or checkbox fields with the same response choices. Create a matrix by clicking Add Matrix of Fields in the Online Designer.

Variable: email

Email

Add Field Add Matrix of Fields Import from Field Bank

Add introductory text to the Matrix Header Text box. Then add each variable name and field label in the Matrix Rows section.

Matrix Header Text (optional)

Please provide the patient's weekly schedule for the activities below.

Expand

Matrix Rows Enable auto naming of variable based upon its Field Label?

Each row represents a different field with its own label and variable name.

Field Label	Variable Name <small>ONLY letters, numbers, and underscores</small>	Question Number <small>(optional)</small>	Required?*	Field Annotation ?	
<input type="text" value="Gym (Weight Training)"/>	<input type="text" value="gym"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	✘
<input type="text" value="Aerobics"/>	<input type="text" value="aerobics"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	✘
<input type="text" value="Eat Out (Dinner/Lunch)"/>	<input type="text" value="eat"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	✘
<input type="text" value="Drink (Alcoholic Beverages)"/>	<input type="text" value="drink"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	✘

[Add another row](#)

Define the choice values and labels in the Matrix Column Choices box, as you would with a standalone multiple-choice or checkbox field. Specify whether respondents can select one answer or multiple answers per row. Finally, give the matrix a group name.

Matrix Column Choices

Choices (one choice per line) [Copy existing choices](#)

0, Monday
 1, Tuesday
 2, Wednesday
 3, Thursday
 4, Friday

[How do I manually code the choices?](#)

Other Matrix Info

Answer Format:
 v

Ranking: [What is a ranked matrix of fields?](#)
 Allow only 1 choice to be selected per column (radio buttons only)

Matrix group name: ONLY letters, numbers, and underscores
 [What is a matrix group name?](#)

On the form or survey, the matrix will be displayed as a grid with fields in rows and choice options in columns.

Please provide the patient's weekly schedule for the activities below.					
	Monday	Tuesday	Wednesday	Thursday	Friday
Gym (Weight Training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aerobics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eat Out (Dinner/Lunch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drink (Alcoholic Beverages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Field Types

Calculated Field Calculated fields return a numeric value in real time based other fields' values or contextual information. For example, you might create a calculated field to return a patient's age based on their date of birth and today's date. See the [Special Functions page](#) within REDCap for more about how to calculate values.

Field Type: Calculated Field

Question Number (optional)

Displayed only on the survey page

Field Label

Use the Rich Text Editor ?

Calculation Equation [How do I format the equation?](#) [Learn how to use](#) Special Functions

`rounddown(datediff([dob], 'today', 'y'))`

Variable Name

ONLY letters, number

How to use [Smart Variables](#)

Required?* Yes

* Prompt if field is blank

Identifier? Yes

Does the field contain

Custom Alignment

Align the position of the

Field Note (optional)

Small reminder text dis

Signature (draw signature with mouse or finger) This type of field allows respondents to sign with a mouse or their finger. The signature is captured as an image file.

Field Type: Signature (draw signature with mouse or finger)

Question Number (optional)

Displayed only on the survey page

Field Label

Use the Rich Text Editor ?

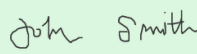
Variable Name (utilized in logic, calcs, and exports)

ONLY letters, numbers, and underscores

Enable auto naming of variable based upon its Field Label?

How to use: [Smart Variables](#) [Piping](#) [Field Embedding](#)

Signature [Add signature](#)

Signature 

`signature_2024-05-07_1152.png (0.01 MB)`

[Remove signature](#)

Online Designer

Survey Page

File Upload (for users to upload files) Use a file upload field to allow respondents to attach files such as PDFs, spreadsheets, or images. A file upload field can capture a single file up to 50 MB in size. Include multiple fields if users will need to upload more than one file.

Field Type: File Upload (for users to upload files)

Question Number (optional): []
Displayed only on the survey page

Field Label: Upload the patient's consent form
 Use the Rich Text Editor

Variable Name: patient_document
(utilized in logic, calcs, and exports)
ONLY letters, numbers, and underscores

How to use: Smart Variables | Piping | Field Embedding

Required?* No Yes
* Prompt if field is blank

Upload the patient's consent form [Upload file](#)

Survey Page: Upload the patient's consent form [Record101_Consent.pdf \(0.06 MB\)](#)
[Upload new version](#) or [Remove file](#)

Slider / Visual Analog Scale Slider fields allow respondents to provide a numeric response by moving a slider icon. Define the following components of the scale:

- Minimum and maximum numeric values. These values will be stored in the database.
- Labels for the lowest, middle, and highest values.

Field Type: Slider / Visual Analog Scale

Question Number (optional): []
Displayed only on the survey page

Field Label: Specify the patient's mood
 Use the Rich Text Editor

Variable Name: specify_mood
(utilized in logic, calcs, and exports)
ONLY letters, numbers, and underscores

How to use: Smart Variables | Piping | Field Embedding

Required?* No Yes
* Prompt if field is blank

Identifier?* No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment: Right / Horizontal (RH)
Align the position of the field on the page
TIP: Make your sliders vertical with RV or LV alignment.

Field Note (optional): []
Small reminder text displayed underneath field

Labels displayed above slider (optional):

Left label (bottom, if vertical):	Very sad
Middle label:	Indifferent
Right label (top, if vertical):	Very happy

Display number value?

Min/max range values: Min: 0 Max: 100

Survey Page: Specify the patient's mood
Very sad Indifferent Very happy

Descriptive Text (with optional Image/Video/Audio/File Attachment) Descriptive fields don't collect data; they comprise only a field label that allows you to display text, images, links, and attachments. Use descriptive fields to share informational text and embed or pipe values from other locations. See the [Survey Styling page](#) for more guidance on embedding fields and customizing descriptive text.

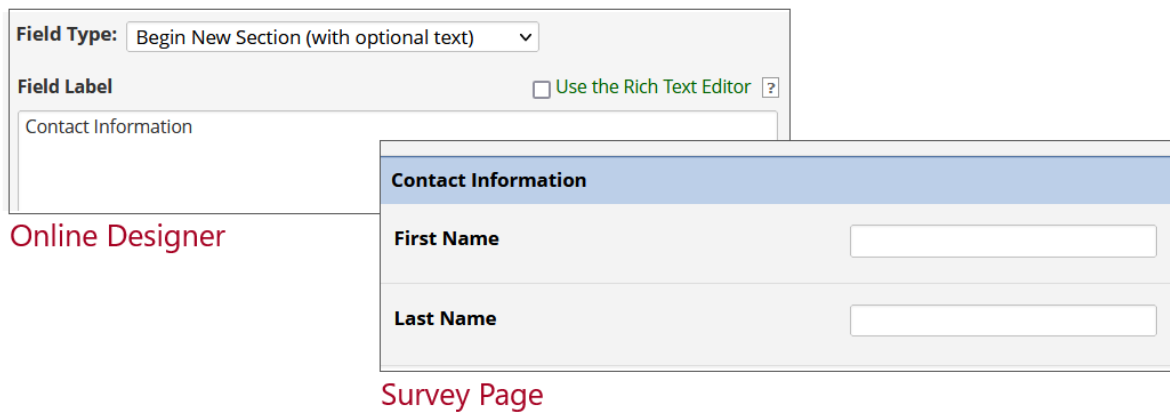
It's important to remember that descriptive text fields don't contain or capture values. The displayed text won't be included in any data exports or imports, even if the field label pipes record-specific data from one part of your project to another. To transfer data from one field or instrument to another, consider the following options:

- Use a calculated field with piping to capture a numeric value
- Use a text field with a @CALCTEXT action tag and piping to capture a text value

- Use a @DEFAULT or @SETVALUE action tag with a text, notes, multiple-choice, or checkbox field to set the field's value when the page loads

See the [Action Tag](#) page for more information about action tags.

Begin New Section (with optional text) “Begin New Section” fields don’t collect data or have variable names. Instead, they allow you to organize instruments into sections with header text. Branching logic applies to section headers: if every field in a section is hidden, the header will also be hidden.



If your instrument is enabled as a survey with pagination, each section will display on a separate page.

Survey Customizations:

Question Numbering Custom numbered ▾

For custom numbering, each question's number will be blank by default until manually added via the Online Designer or Data Dictionary.

Question numbers will not display correctly if using auto numbering if some questions have Question auto numbering has been automatically disabled because some of your survey qu

Pagination Multiple pages (display one section per page) ▾

One page or multiple pages? Section headers, which begin new sections on the instrument, will serve as the page break in a multi-page survey, in which each page will begin with a section header.

Display page numbers at top of survey page

Hide the 'Previous Page' button (i.e., Back button) on the survey page
(prevents respondents from going back to previous pages)

Dynamic Query (SQL) Fields This is a special type of field that allows lookup of values stored in the REDCap database. Only REDCap administrators can create and edit SQL fields. For more information about SQL fields, please [contact the REDCap administrator](#).