Tufts Clinical and Translational Science Institute

REDCap Feature Spotlight

EXTERNAL MODULES:
Matrix Question Randomization
and
Survey UI Tweaks

May, 2019
Tufts CTSI is committed to providing the best expert advice and user experience to investigators who use our services.

As a part of this commitment, we will now be providing you with the frequent REDCap Feature Spotlight.

In May, 2020, Feature Spotlight brings you 2 new External Modules, which are feature add-ons that extend REDCap’s functionality and provide customizations without changing the core REDCap workflow.
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Accessing External Modules in REDCap
External Modules

REDCap now offers access to **External Modules**. These are contributed by members of the REDCap consortium. When enabled, external modules add options to your projects to enhance their look, feel and customizability!

You can access external modules via the button on the **left-hand column**; clicking it allows you to **view modules in use**, and **view available modules administrators can set up**.
View Enabled Modules

Once on the External Modules page, you can see what modules you have enabled for the project.

The View Available Modules button shows modules that an administrator can add per request.

Currently Enabled Modules

Field Notes Display - v1.1.2
Provides alternative display modes for field notes. This module adds: 'display' when the field is hovered over; 'tooltip' - places a help icon, which displays the text in a popover when clicked.
https://github.com/ctsii/field_notes_display.

QR Code Shortcut - v1.1.1
Provides a shortcut to generate a survey QR code for a new data entry.

Sticky Matrix Headers - v1.2.0
Makes the matrix header for a matrix of fields always visible (as long as there are no other columns on the same row).
View Enabled Modules

By pressing **View Available Modules** you can see modules that are available but not yet enabled- these must be enabled by an administrator.

![View available modules](image)

**Available Modules**

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Version</th>
<th>Status</th>
<th>Description</th>
<th>Request Activation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Calculated Fields - v1.6.5 <strong>Discoverable</strong></td>
<td>v1.6.5</td>
<td><strong>Discoverable</strong></td>
<td>Allows for piping from date fields to other date fields, regardless of format. Can pipe data across events within a REDCap project.</td>
<td></td>
</tr>
<tr>
<td>Instant Field Concatenation - v1.2.1 <strong>Discoverable</strong></td>
<td>v1.2.1</td>
<td><strong>Discoverable</strong></td>
<td>This module concatenates fields and places the result in another field instantly. It uses JavaScript and not PHP. It happens upon the user leaving the field.</td>
<td></td>
</tr>
</tbody>
</table>

Simply press **Request Activation** and an administrator will be automatically contacted to add the module to your project!
Global vs. Discoverable

Global modules:
An external module that provides utility for a large portion of REDCap users will be **enabled globally**, meaning the improvements they bring will be activated for all projects.

Discoverable modules:
These modules are applicable for a small number of users, and require a REDCap administrator to add them to individual projects.

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**Currently Enabled Modules**

- **Field Notes Display - v1.1.2**
  Provides alternative display modes for field notes. This module adds an action tag `<FIELD-NOTES-DISPLAY>` that accepts the following inputs: `hover` - displays the text when the field is hovered over; `tooltip` - places a help icon, which displays the text in a tooltip when hovered over; `popover` - places a help icon, which displays the text in a popover when clicked. See the complete documentation at https://github.com/ctsifield_notes_display
  ![View Documentation](#)

- **Instant Field Concatenation - v1.2.1**
  This module concatenates fields and places the result in another field instantly. It uses JavaScript and not PHP. It happens upon the user leaving the field.
  ![View Documentation](#)

- **QR Code Shortcut - v1.1.1**
  Provides a shortcut to generate a custom QR code for a new data entry. See full documentation here.
  ![View Documentation](#)

- **Sticky Matrix Headers - v1.2.0**
  Makes the matrix header for a matrix of fields always visible (as long as the matrix is visible) - for surveys only.
  ![View Documentation](#)

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This module had to be added by an administrator before being visible with the rest.
Previously Released Modules

The following modules were added in previous months; see tuftsctsi.org/research-services/informatics/redcap-research-electronic-data-capture/redcap-tips-and-tricks/ for details

Global external modules already enabled for all projects

- **Field Notes Display** – Display options for field notes
- **QR Code Shortcut** – Provides button to generate survey QR
- **StringUtils** – Provides new action tags for text manipulation

Discoverable external modules

- **Instant Field Concatenation** – Concatenates text fields
- **Date Calculated Fields** – Allows piping, adding, and subtracting dates from one another
May, 2020
New External Modules:

Matrix Question Randomization
and
Survey UI Tweaks
Matrix Question Randomization

- **Matrix Question Randomization** allows you to randomize the order of the questions in a matrix field on a survey.

- To use it, start by creating a matrix of fields with a unique **Matrix Group** name.

This is the online designer view of a matrix named **my_matrix**.
Matrix Question Randomization

Then, on the **External Modules** page, press the “**Configure**” button and enter the name(s) of any matrix(ces) where you would like the question order to be random.
Matrix Question Randomization

When opened as a survey, the question order will now be random, and change every time the survey is opened or refreshed.

Without Randomization

With Randomization
Matrix Question Randomization

- When you use the dashboard to look at the results, the questions will be in their original order.

- This module cannot affect forms, and question order at survey completion is not recorded.
Survey UI Tweaks

- **Survey UI Tweaks** is a module that allows you to change several aspects of surveys.

- Most tweaks can be applied to either **individual** surveys or **all surveys in a project**. The changes do not affect **forms**.

- To see the changes available, go to **External Modules** in the left-hand column and press the **Configure** button as shown below:
Survey UI Tweaks

• The first section of the settings allows you make changes that affect all surveys in a project.

• Many are simple, such as removing the Resize font or Survey Queue buttons.
Survey UI Tweaks

You can remove the extra space in custom-numbered questions:

1) One
2) Two
3) Three

Auto numbered

One
Two
Three

Custom numbered

One
Two
Three

Custom numbered + Remove extra space

Removing the reset button on radio fields makes it impossible for respondents to revert them to “empty” after selecting an option.

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Survey UI Tweaks

• Autoscroll is a feature that scrolls the webpage down after each question.

• This can be useful when using a mobile device.

• You can turn it off with a toggle switch in the upper-right corner.

Click to view this as a video
Survey UI Tweaks

Removing the submit button allows you to make a purely informational survey or dead-end page to inform someone that they are not eligible to continue:

![Dead End](image)

I'm sorry, but you've reached a dead end in this survey and will not be able to continue beyond this point. While all data from your previous surveys will be saved, the only way out of this page is to close your browser window.
Many **Survey Specific Tweaks** are the same as the above with a few additions, like **renaming** or **removing “Submit”**.
Survey UI Tweaks

You can also enable **Enhanced Drag and Drop Matrix Ranking**, which creates a new look on surveys for ranked matrices:

```
My Matrix

- Question One
- Question Two
- Question Three
- Question Four
- Question Five

Drag Choices Here
```
Survey UI Tweaks

Users can drag and drop their choices to rank them in their preferred order:

![Image of a survey interface with drag and drop feature]

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Survey UI Tweaks

Which are then portrayed as a “Classical” matrix in the form

<table>
<thead>
<tr>
<th>My Matrix</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>(One selection allowed per column)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question One</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Two</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Three</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Four</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Five</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Survey UI Tweaks

The settings are very straightforward- and even include the option to do randomization! (This is preferred as opposed to using this with Matrix Question Randomization.)

![Survey UI Screenshot]

1. **Matrix Group Name**
   Select which matrix you want to selectively apply the following tweaks to:
   - **Show Rank Order labels** in the drag list item:
   - **Randomize Order of Choices** to decrease bias:
   - **Matrix Instructions** to show as text in draggable area:

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[Tufts CTSI Logo]
Survey UI Tweaks

The final section of the module allows you to capture **how long it took for a participant to complete a survey** into a “text” field.

The required module is **not enabled** on our REDCap installation.

Please note that the option **Enable Debug Logging**, will **not work** on our current REDCap installation and should not be selected.
Survey UI Tweaks

After a survey is completed, when you open the record via the dashboard you will see the field you selected to store the duration:

This field will be automatically hidden in the survey, and the field value will be overridden with the count of seconds.
Best Practices

• Always test changes on a copy of your project before implementing them on the in-production version

• Back up your data often, particularly before making changes or enabling an external module

• If there’s a simple way to do something, try that first

• When in doubt, ask for help!
Contact Us!

Enabling a module is now as simple as pressing “Request Activation”!

For questions or concerns, please contact us at informatics@tuftsctsi.org