



CEMS **Chemical Environmental Management System**

Custom Form Management

[Custom Form Creation](#)

[Edit Form Properties](#)

[Adding New Form Elements](#)

[Conditional Visibility](#)

For support contact UNHCEMS at cems-info@sr.unh.edu. For more information about UNHCEMS please visit <http://www.cems-info.sr.unh.edu/>.

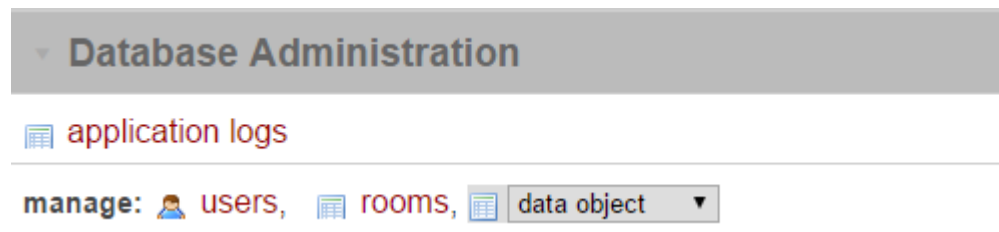


Custom Form Creation

- To perform this function, the user must be a database administrator.

Creating a Custom Form Record

Step 1: Navigate to the **Database Administrator** section of the Dashboard.

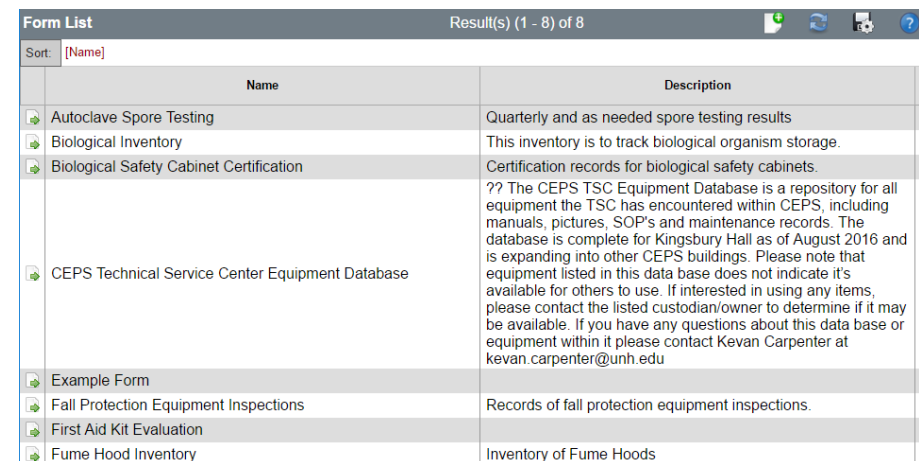


Step 2: Using the dropdown menu, scroll to the Custom Forms section and select *forms*. This will take you to the Custom Forms recordset, allowing you to see all custom forms created for your site.

Step 3: Click on the  button in the top right of your screen.

Step 4: Set the name of the form and its administrator and click save.

Note: After clicking save, the administrator of the form will be able to edit the forms contents and permissions.

A screenshot of a web application window titled "Form List" showing a table of form records. The window title bar includes "Result(s) (1 - 8) of 8" and standard navigation icons. The table has two columns: "Name" and "Description".

Name	Description
Autoclave Spore Testing	Quarterly and as needed spore testing results
Biological Inventory	This inventory is to track biological organism storage.
Biological Safety Cabinet Certification	Certification records for biological safety cabinets.
CEPS Technical Service Center Equipment Database	?? The CEPS TSC Equipment Database is a repository for all equipment the TSC has encountered within CEPS, including manuals, pictures, SOP's and maintenance records. The database is complete for Kingsbury Hall as of August 2016 and is expanding into other CEPS buildings. Please note that equipment listed in this data base does not indicate it's available for others to use. If interested in using any items, please contact the listed custodian/owner to determine if it may be available. If you have any questions about this data base or equipment within it please contact Kevan Carpenter at kevan.carpenter@unh.edu
Example Form	
Fall Protection Equipment Inspections	Records of fall protection equipment inspections.
First Aid Kit Evaluation	
Fume Hood Inventory	Inventory of Fume Hoods



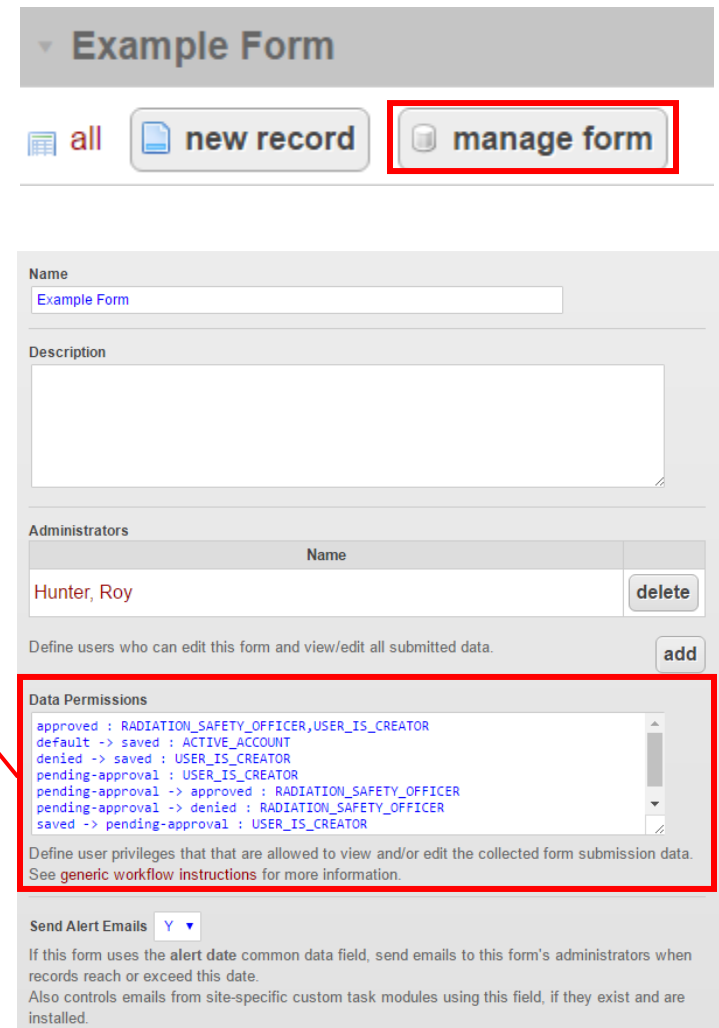
Edit Form Properties

Editing Data Permissions

- Data Permissions are used to determine what types of users can view, edit, and move the form. To see a more detailed explanation of how to use Data Permissions visit the [generic workflow instructions](#) link.

Step 1: Using the dashboard section for your form, click on the *manage form* button.

Step 2: Now navigate to the *Data Permissions* section and insert your desired user permissions.



Example Form

all new record **manage form**

Name
Example Form

Description

Administrators

Name	
Hunter, Roy	delete

Define users who can edit this form and view/edit all submitted data. **add**

Data Permissions

```
approved : RADIATION_SAFETY_OFFICER, USER_IS_CREATOR
default -> saved : ACTIVE_ACCOUNT
default -> saved : USER_IS_CREATOR
denied -> saved : USER_IS_CREATOR
pending-approval : USER_IS_CREATOR
pending-approval -> approved : RADIATION_SAFETY_OFFICER
pending-approval -> denied : RADIATION_SAFETY_OFFICER
saved -> pending-approval : USER_IS_CREATOR
```

Define user privileges that that are allowed to view and/or edit the collected form submission data. See [generic workflow instructions](#) for more information.

Send Alert Emails

If this form uses the alert date common data field, send emails to this form's administrators when records reach or exceed this date. Also controls emails from site-specific custom task modules using this field, if they exist and are installed.

Data Permissions

```
default -> saved : ACTIVE_ACCOUNT
saved -> saved : USER_IS_CREATOR
saved -> pending-approval : USER_IS_CREATOR
pending-approval : USER_IS_CREATOR
pending-approval -> approved : RADIATION_SAFETY_OFFICER
pending-approval -> denied : RADIATION_SAFETY_OFFICER
denied -> saved : USER_IS_CREATOR
approved : RADIATION_SAFETY_OFFICER, USER_IS_CREATOR
```

Define user privileges that that are allowed to view and/or edit the collected form submission data. See [generic workflow instructions](#) for more information.



Note: The following lines are from the example form above.

Line 1: (default -> saved : ACTIVE_ACCOUNT)

This line states that anyone with an active account can submit a new form to the saved state.

Line 2: (saved -> saved : USER_IS_CREATOR)

The user who created this form can edit this form inside the saved state.

Line 3: (saved -> pending-approval : USER_IS_CREATOR)

The user who created this form can submit this form to wait for approval.

Line 4: (pending-approval : USER_IS_CREATOR)

The user who created this form can view but not edit the form waiting for approval.

Line 5: (pending-approval -> approved : RADIATION_SAFETY_OFFICER)

A user with the radiation safety officer can approve this form after it is submitted to pending-approval.

Line 6: (pending-approval -> denied : RADIATION_SAFETY_OFFICER)

A radiation safety officer can deny approval for this form after it is submitted to pending-approval.

Line 7: (denied -> saved : USER_IS_CREATOR)

A user who created this form can retrieve denied forms, edit them, and save them back to the saved state.

Line 8: (approved : RADIATION_SAFETY_OFFICER, USER_IS_CREATOR)

A radiation safety officer or the user who created the form can view but not edit an approved form.

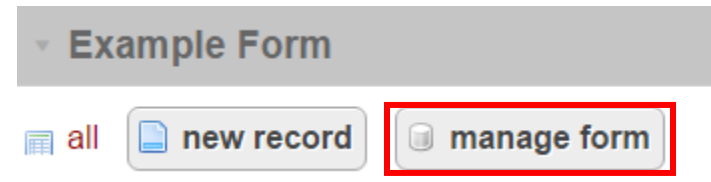
- Each line of the above example determines what different users can do depending on how the form is saved.
- The section of text before the ":" explains what save state allows the user shown on the right can access the form.
- Text after the ":" determines what permissions a user must have to access the form based on the saved state.



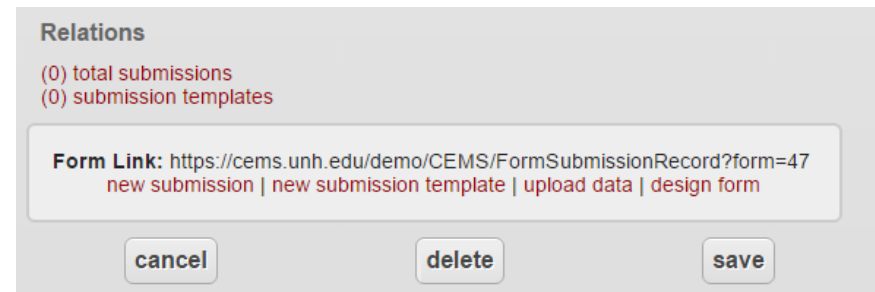
Designing a Form

Adding a New Form Element

Step 1: From the custom form's dashboard, select the *manage form button*.



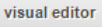
Step 2: Now navigate to the Relations section of the Form Properties page, near the bottom of the page.



Step 3: Select the *design form* link to pull up the form in the administrator view.

Step 4: Click on the *new* button to insert a new element on the form.



Step 5: Insert the question you would like to ask or the text you would like to display in the question/content box. If you would like to have more formatting options, you can click on the  button to bring up more options.

Step 6: Select the type of element you would like to add. Common field elements have built in options that enhance the element further than custom fields.

- Content elements display only the question/content field and do not allow for user input. The following steps in this section only apply to other element types.

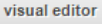
Step 7: Decide the widget type of the element. Each widget type displays the content of the options section differently. Single line and multiline text boxes are the two widget types for custom user input.

Step 8: To give the user options, insert them into the options text box. Each option should be typed on its own line.

Form Element Record

question / content

What is your favorite color?



Enter form element content (HTML allowed). [Advanced Guide](#)

element type

text ▼

When possible use a *Common Field* if the field represents the type of data being stored. Doing so will provide additional enhancements.

widget type

single line text box ▼

options

red
yellow
blue
green
orange
purple
pink

If the user should be presented with a list of options to pick from, enter the text for each available option on its own line above. See [advanced instructions](#) for defining labels or defining options using other data in the system.

max length

Enter the maximum number of characters allowed.



Step 9: If you would like to have a default answer insert it into the default value text box.

Step 10: If you want to enter extra instructions or description enter them into the details text box.

Step 11: When looking at the form recordset, the column header corresponding to the current question is set using the report label text box. In this example, the column for this question will have the header "Favorite Color".

Step 12: In the conditional visibility section, you can make this question visible depending on an answer to a previous question. For a more detailed explanation, see the conditional visibility section of this documentation.

Step 13: Check any of the required, disabled, general search, and show in default search results options that you would like for this question.

The image shows a configuration interface for a question. It is divided into several sections:

- default value:** A large yellow text box for entering a default answer.
- details:** A text box containing the instruction "Either select from the list or enter your own color." Below it is a note: "Enter instructions or additional details to display next to question. (HTML allowed)".
- report label:** A text box containing "Favorite Color". Below it is a note: "The report label for this question is used in the table header when using the report tools. For example, if the question is *Is the container leaking?*, the report label could be *is leaking*."
- conditional visibility:** A dropdown menu set to "contains" and an empty text box. Below it is a note: "If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol)."
- required:** A checkbox labeled "required" with the question "Is the user required to answer this question?".
- disabled:** A checkbox labeled "disabled" with the note "Disable the form element in form and search results. Previously saved data will not be deleted."
- general search:** A checkbox labeled "general search" with the note "Include field in dashboard general search box."
- show in default search results:** A checkbox labeled "show in default search results" with the note "Controls whether this field should be automatically displayed in default search results."



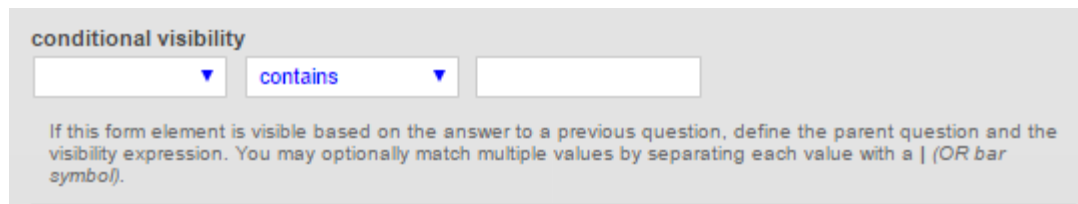
Conditional Visibility

- Conditional visibility is the ability to hide or show a question based on the answer to previous questions.

Setting Visibility Statements

Step 1: Follow the steps in the Designing a Form section of this document to navigate to the conditional visibility section of the Form Element page.

Note: To edit a question or content, instead of create new content, click on the area you would like to edit then select the edit button on the right.



The screenshot shows a user interface for setting conditional visibility. At the top, it says "conditional visibility". Below this, there are three input fields: a dropdown menu on the left, a dropdown menu in the middle containing the word "contains", and a text input field on the right. Below these fields, there is a small text box with the following text: "If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol)." The interface is light gray with white text and blue accents for the dropdown menus.

The format for inserting dates is four digit year, two digit month, and then two digit day (YYYY-MM-DD).

Step 2: In the left most dropdown menu, select the question you would like your current element to depend on.

Step 3: In the middle select the logical operator you would like to use to determine what answer makes the current element appear. More on logical operators can be found below.

Step 4: In the right most text box, insert the answers that make your question appear or disappear based on the logical operator.



Conditional Visibility

Logical Operators

To explain logical operators, we are going to be using an example form and set of questions shown below.

The section of this form asking to pick a number between 1 and 10 is a question titled One to Ten.

The section of this form asking for your favorite color is titled Favorite Color.

Example Form

Pick a number between 1-10.

- 1
- 2
- 3
- 4
- 5
- 6
- 7

What is your favorite color?

Either select from the list or enter your own color.



Contains: Searches the answer to the question in the left-hand text box for the value in the right-hand text box. If it finds the values in the right text box, the question being edited will display.

conditional visibility

One to Ten ▼ contains ▼ 1|2|3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

The above example says, when the answer to the question titled One to Ten contains the numbers 1, 2, or 3, display the Favorite Color question on the form. All the acceptable answers are 1, 2, 3, and 10. Note, 10 is an acceptable answer because it contains a "1" digit.

Example Form

Pick a number between 1-10.

- 1
- 2
- 3
- 4
- 5
- 6
- 7

advanced

cancel submit

This example does not have 1, 2, 3, or 10 selected and therefore does not display the question, "What is your favorite color?"

Example Form

Pick a number between 1-10.

- 1
- 2
- 3
- 4
- 5
- 6
- 7

What is your favorite color?

Either select from the list or enter your own color.

advanced

cancel submit

This example has 1 selected as the answer to the question One to Ten causing the next question, "What is your favorite color?", to appear.



Does not Contain: If the value in the right-hand box is found as part of the answer to the question in the left-hand box, the question being edited will disappear.

conditional visibility

One to Ten does not contain 1|2|3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

This example states, if the answer to the question One to Ten does not have the numbers 1, 2, or 3, then display this question. The statement could also be restated as, if One to Ten contains 1, 2, or 3, hide the question. Keep in mind, 10 is now also an invalid answer because it contains the digit "1".

Example Form

Pick a number between 1-10.

1
 2
 3
 4
 5
 6
 7

What is your favorite color?

Either select from the list or enter your own color.

advanced

cancel submit

This example does not have 1, 2, 3, or 10 selected and therefore displays the question, "What is your favorite color?"

Example Form

Pick a number between 1-10.

1
 2
 3
 4
 5
 6
 7

advanced

cancel submit

This example has 2 selected as the answer to the question One to Ten causing the next question, "What is your favorite color?", to disappear.



Equals "=": If the value in the right-hand box is exactly equal to the answer to the question in the left-hand box, the question currently being edited will appear.

conditional visibility

One to Ten ▾ = ▾ 1|2|3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

Now, if the answer to the question One to Ten is exactly equal to 1, 2, or 3, display the Favorite Color question.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

▸ advanced

cancel submit

This example does not have 1, 2, or 3 selected making the question, "What is your favorite color?", disappear.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

What is your favorite color?

Either select from the list or enter your own color.

▸ advanced

cancel submit

When either 1, 2, or 3, is selected for this example, the question, "What is your favorite color?", appears.



Does Not Equal "!=": If the value in the right-hand box is equal to the answer to the question in the left-hand box, the question currently being edited will disappear.

conditional visibility

One to Ten 1|2|3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

Now, if the answer to the question "One to Ten" is not equal to 1, 2, or 3, display the "Favorite Color" question. Or, if the answer to "One to Ten" equals 1, 2, or 3, hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

advanced

cancel submit

When either 1, 2, or 3 is selected the question, "What is your favorite color?", disappears.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

What is your favorite color?

Either select from the list or enter your own color.

advanced

cancel submit

This example does not have 1, 2, or 3 selected making the question, "What is your favorite color?", appear.



Less Than "<": If the selected answer to the question in the left-hand box is less than the value in the right-hand box, the question currently being edited will be visible.

conditional visibility

One to Ten ▾ < ▾ 3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

For this example, if the user answers 1 or 2 for "One to Ten", the question "Favorite Color" will appear.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

> advanced

cancel submit

When any answer equal to 3 or larger is selected the "Favorite Color" question disappears.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

What is your favorite color?

Either select from the list or enter your own color.

> advanced

cancel submit

This example has selected 1, causing the "Favorite Color" question to appear.



Less Than or Equal To " \leq ": If the answer to the question in the left-hand box is the value in the right-hand box or less, display the question currently being edited.

conditional visibility

One to Ten \leq 3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

Now, if the answer to the question "One to Ten" is 1, 2, or 3, display the "Favorite Color" question. Or you could restate this as, if the answer to "One to Ten" is 4 or larger, hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

advanced

cancel submit

Any selected value larger than 3 will cause the "Favorite Color" question to disappear.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

What is your favorite color?

Either select from the list or enter your own color.

advanced

cancel submit

Since the above example selected 3, the "Favorite Color" question appears.



Greater Than ">": If the answer to the question in the left hand box is larger than the value in the right hand box, display the question currently being edited.

conditional visibility

One to Ten ▾ > ▾ 3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

Now, if the answer to the question "One to Ten" is greater than 3, display the "Favorite Color" question. Or you could restate this as, if the answer to "One to Ten" equals 3 or less, hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

▸ advanced

cancel submit

Any selected value that is 3 or less will hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1

2

3

4

5

6

7

What is your favorite color?

Either select from the list or enter your own color.

▸ advanced

cancel submit

This example has 4, an answer larger than 3, selected making the "Favorite Color" question appear.



Greater Than or Equal To ">=": If the answer to the question in the left-hand box is equal to the value in the right-hand box or larger, display the question currently being edited.

conditional visibility

One to Ten ▾ >= ▾ 3

If this form element is visible based on the answer to a previous question, define the parent question and the visibility expression. You may optionally match multiple values by separating each value with a | (OR bar symbol).

Now, if the answer to the question "One to Ten" is 3 or larger, display the "Favorite Color" question. Or you could restate this as, if the answer to "One to Ten" equals 2 or less, hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1
 2
 3
 4
 5
 6
 7

▸ advanced

cancel submit

Only the answers 1 and 2 hide the "Favorite Color" question.

Example Form

Pick a number between 1-10.

1
 2
 3
 4
 5
 6
 7

What is your favorite color?

Either select from the list or enter your own color.

▸ advanced

cancel submit

This example has selected 3 for the answer and could select any number larger than that to display the "Favorite Color" question.

