



CEMS Chemical Environmental Management System

Database Administration – Data Management

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Managing Data

Database Administration Dashboard Layout

The screenshot shows the 'Database Administration' dashboard. At the top is a grey header with the text 'Database Administration'. Below it are several sections: 'download backup' with a floppy disk icon, '(11) unapplied HandyCEMS Uploads' with a grid icon, 'manage data object' with a dropdown menu, and '(2) pending tasks' with a checkbox icon. A 'For support please co' link is partially visible. The dropdown menu is open, showing a list of objects categorized under 'Accounts', 'Biologicals', and 'Chemicals'. Red callout boxes with arrows point to these elements: one to 'download backup', one to '(11) unapplied HandyCEMS Uploads', one to the dropdown menu, and one to '(2) pending tasks'.

Click to backup all CEMS objects into a .zip file

Contains a log of all HandyCEMS uploads for the chemicals not yet added into the system

Users can submit requests such as asking the database administrator to correct container details. The requests will show up here

Manageable data can be accessed with this drop down menu, such as adding/editing users, buildings, chemicals, etc.

Database Administration

download backup

(11) unapplied HandyCEMS Uploads

manage data object -- select object --

(2) pending tasks

For support please co h.edu.

Accounts

- accessgroups
- departments
- user status types
- users
- roles (permissions types)

Biologicals

- amount units
- catalog
- catalog modifiers
- inventory
- organism types
- titer units

Chemicals

- cas
- chemicals
- handycems uploads
- hazard types
- inventory



Editing Accounts

Account Objects

- Account objects such as accessgroups, departments, User status types, users and roles (permissions types) can all be edited through the manage data object -> Accounts section.

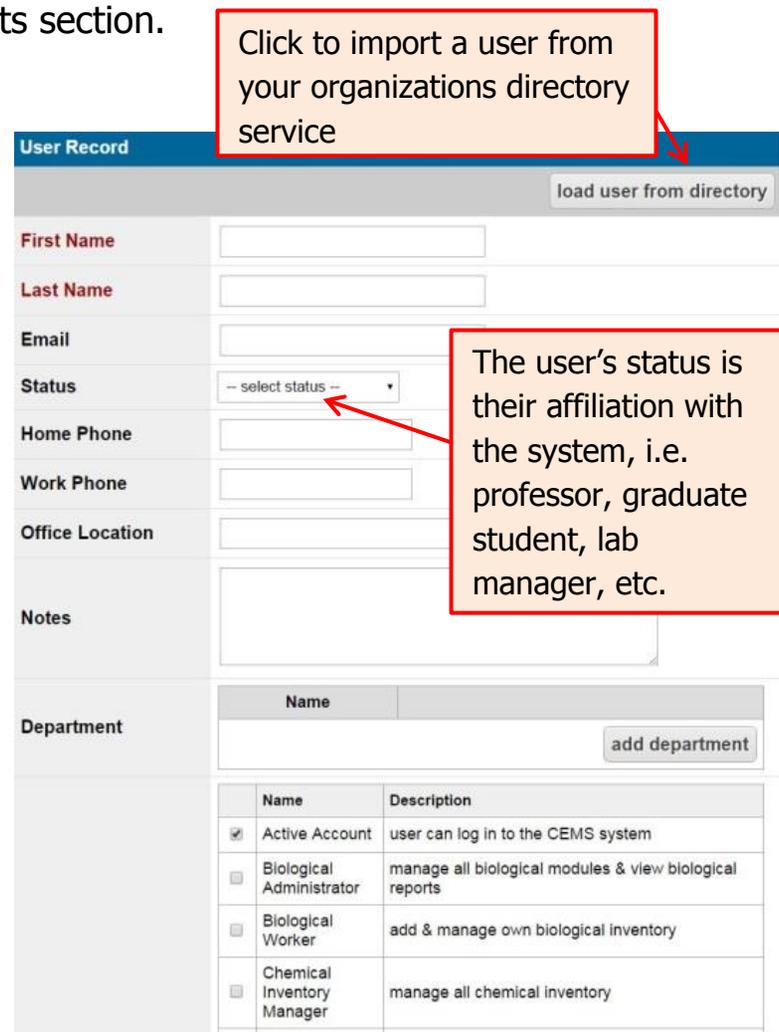
How to Add/Edit New Users

Step 1: From the manage data objects dropdown menu, click on the *users* link under the *Accounts* section. This will bring you to a list of all users.

Step 3: click on the  or the  button to add/edit users.

Step 4: fill out the information asked in the user record.

Step 5: Click  to submit the new user.



The screenshot shows the 'User Record' form. A red box highlights the 'load user from directory' button with the text: 'Click to import a user from your organizations directory service'. Another red box highlights the 'Status' dropdown menu with the text: 'The user's status is their affiliation with the system, i.e. professor, graduate student, lab manager, etc.'. The form includes fields for First Name, Last Name, Email, Home Phone, Work Phone, Office Location, and Notes. Below these is a 'Department' section with a table of roles and a table of permissions.

Name	Description
<input checked="" type="checkbox"/> Active Account	user can log in to the CEMS system
<input type="checkbox"/> Biological Administrator	manage all biological modules & view biological reports
<input type="checkbox"/> Biological Worker	add & manage own biological inventory
<input type="checkbox"/> Chemical Inventory Manager	manage all chemical inventory



Generic Forms

- Generic Forms allow administrators to define new forms in the system to collect records for custom inventories, inspections logs, etc. Administrators can ask custom questions for users to submit data into. Recordset will display the submitted data where it can be filtered and sorted.

How to Create/Edit a Form

Step 1: From the manage data objects dropdown click on the *Forms* link under the *Generic Forms* section.

Step 2: This link will bring you to a list of all the generic forms created.

Step 3: Click on the  or the  button to add/edit the forms.

Step 4: The first page will be the form properties page. It asks for information such as the name of the form and the workflow model. A workflow model defines all the possible states of submissions and the required user privileges for operating within those states.

Step 5: Click save to start designing a form, and see *How to Design a Form* below.



Generic Forms

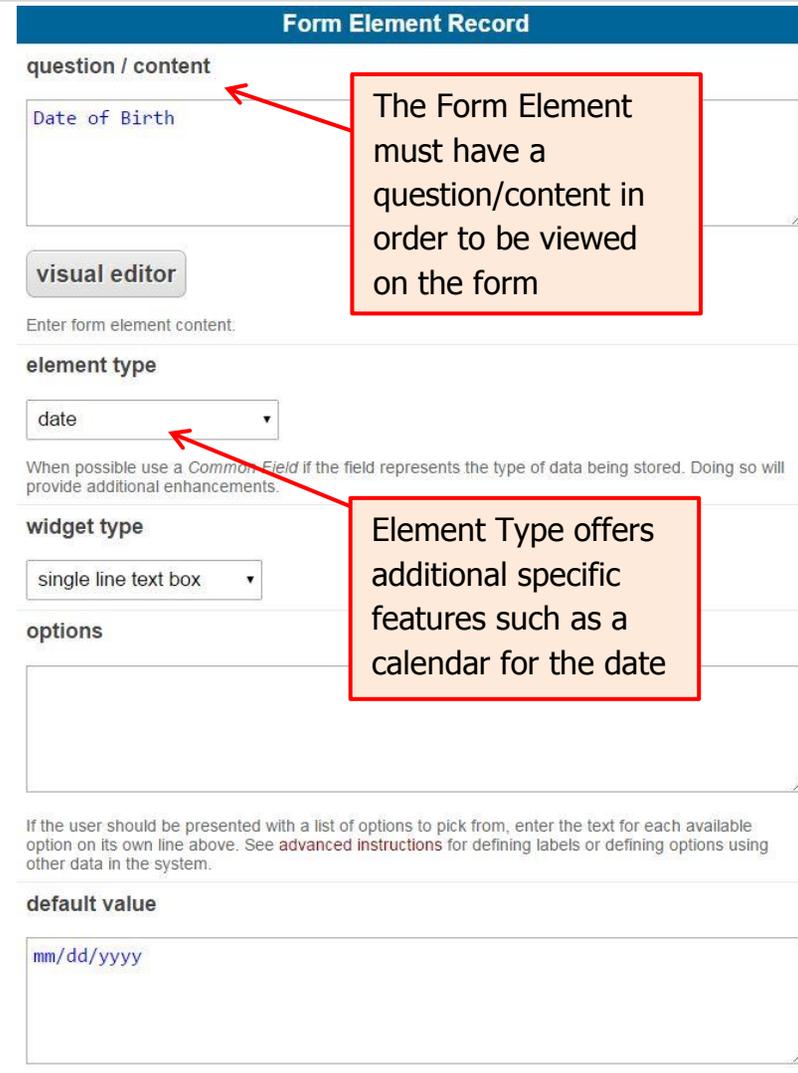
How to Design a form

Step 1: Click on the  button next to the record to start editing the record.

Step 2: On the bottom of the Form Properties page will be a [design form](#) link, click this link to start designing a new form.

Step 3: In the upper right hand corner will be an Admin Menu. Click on the  to create new form elements. The Form Element Record is shown to the right .

Step 4: When finished adding the form elements, you can close out the page.



The screenshot shows the 'Form Element Record' form. It has several sections: 'question / content' with a text area containing 'Date of Birth'; a 'visual editor' button; a text input for 'Enter form element content.'; 'element type' with a dropdown menu set to 'date'; 'widget type' with a dropdown menu set to 'single line text box'; 'options' with a large empty text area; and 'default value' with a text input containing 'mm/dd/yyyy'. Two callout boxes with red borders and arrows point to the 'Date of Birth' text and the 'date' dropdown menu. The first callout says 'The Form Element must have a question/content in order to be viewed on the form'. The second callout says 'Element Type offers additional specific features such as a calendar for the date'.



Generic Forms

- Administrators can also designate responsible users to fill out the forms on a due date interval

How to create a Submission Template

Step 1: On the bottom of the Form Properties page will be a [new submission template](#), click on this link to create a new Form Template.

Step 2: After the form heading will be a section called Template Options. This section will allow you to assign user responsibility for filling out the forms.

Step 3: Click the [save template](#) button to submit the template to the responsible user.

The screenshot shows the 'Template Options' section of a form. It includes the following fields and options:

- Responsible User:** A text input field with a red box annotation: "Assign a user responsible for filling out the form". To its right is a dropdown menu with a red box annotation: "Click to browse through the user recordset".
- Start Due Date:** A date input field with a calendar icon and a placeholder "YYYY-MM-DD". Below it is a note: "Optionally define a responsible user for filling out forms based on this template." and "If the form must be filled out on a scheduled interval, specify the start date of the first due date."
- Due Date Interval:** A text input field and a dropdown menu set to "months". Below it is a note: "CEMS will ensure a report is completed for the active date specified for all dates in the interval starting with the start due date. Reports completed outside the interval have no bearing on whether a report is overdue. If you change the due date interval for an existing template, you may want to set the start due date to today so CEMS does not generate past overdue notices. You can also choose to disable this template and create a new template for the new due date interval."
- Sliding Due Date:** A dropdown menu set to "no". Below it is a note: "Select yes, if the due date should slide based on the last date the report was completed. Select no, if the due date schedule of future reports does not change based on when the last time a report is completed."
- disable template:** A checkbox with the label "disable template". Below it is a note: "When a template is disabled, a link to fill out the form based on the template will NOT appear on a user's dashboard. Overdue notices will also be disabled. All completed reports based on the template will still be available."

At the bottom of the form are two buttons: "cancel" and "save template".



Custom Reports

- Custom Reports can be created to provide additional specific information about the system

How to Edit/Add Custom Reports

Step 1: From the manage data objects dropdown

click on the *Custom Reports* link under the *others* section.

Step 2: This link will bring you to a list of all the custom reports created.

Step 3: Click on the  or the  button to add/edit the Reports.

Step 4: With SQL knowledge, you can create some simple filters and comparisons. To the right is an example

of a program that compares the phone numbers displayed on the sign and the number on the contacts profile, then displays the mismatched results. This code would go in the SQL section on the report record.

```
select sign.id SIGN_ID, concat(user.fname, ' ',user.lname) SIGN_CONTACT,
       user.hm_phone PROFILE_HMPH, sign.c1_hm_ph SIGN_HMPH
from sign
join user on (sign.c1 = user.id)
LEFT join user_priv ur on (user.id = ur.user and ur.priv = 1)
where locate(user.hm_phone,sign.c1_hm_ph) = 0 AND
locate(sign.c1_hm_ph,user.hm_phone) = 0
and sign.status = 'ACTIVE'
union
select sign.id SIGN_ID, concat(user.fname, ' ',user.lname) SIGN_CONTACT,
       user.hm_phone PROFILE_HMPH, sign.c2_hm_ph SIGN_HMPH
from sign
join user on (sign.c2 = user.id)
LEFT join user_priv ur on (user.id = ur.user and ur.priv = 1)
where locate(user.hm_phone,sign.c2_hm_ph) = 0
AND locate(sign.c2_hm_ph,user.hm_phone) = 0
and sign.status = 'ACTIVE'
union
select sign.id SIGN_ID, concat(user.fname, ' ',user.lname) SIGN_CONTACT,
       user.hm_phone PROFILE_HMPH, sign.c3_hm_ph SIGN_HMPH
from sign
join user on (sign.c3 = user.id)
LEFT join user_priv ur on (user.id = ur.user and ur.priv = 1)
where locate(user.hm_phone,sign.c3_hm_ph) = 0
AND locate(sign.c3_hm_ph,user.hm_phone) = 0
and sign.status = 'ACTIVE'
ORDER BY 1
```

