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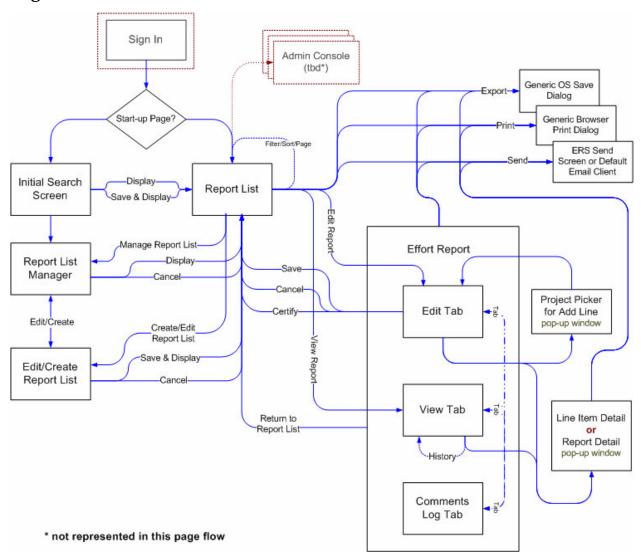
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The screens referred to in this document can be viewed in a prototype running at: <a href="http://www.ucop.edu/sysdev1/ers/proto/proto\_v6/index.html">http://www.ucop.edu/sysdev1/ers/proto/proto\_v6/index.html</a>

Please note that the prototype is just that. Most of it is *non-functional*.

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## Page Flow



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## **Generic Page Elements**

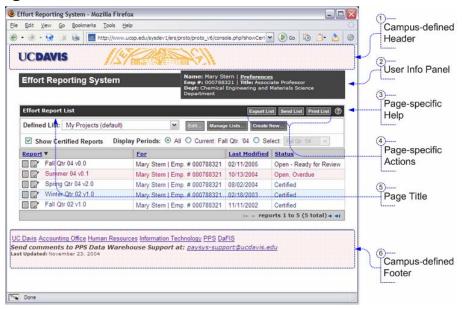


Figure 1, Generic Page Elements

### 1. Campus-defined Header

The header is specified in the localization code. Does not depend on or interact with the ERS application

#### 2. User Info Panel

Displays user information.

#### Preferences link:

displays User Preferences Panel

**Note:** No user level preferences have been defined at this time.

#### 3. Page Specific Help

Displays pop-up window containing help for the current page.

#### 4. Page Specific Actions

Export, Send, and/or Print actions for the entire list or report. Used on the Report List page, Effort Report Page, and Details pop-ups.

## 5. Page Title

Identifying name for each page.

### 6. Campus-defined Footer

The footer is specified in the localization code. Does not depend on or interact with the ERS application.

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## Starting Points and URIs in ERS

There are certain places in the ERS that users may want to start there session with ERS or come back to. The standard way to access a page on the web is by using a bookmark, or a link. However in a web application not all screens or states that can be displayed are appropriate places to link to. In order to support direct linking, the web application must manage the URI so that the locations displayed in the address bar are valid and contain the right information to load a valid context for the user.

In ERS there are three valid, linkable/bookmarkable starting points: the root, a specific report list, or the latest version of a specific report.

The URI would always be one of the following:

Root: /EffortReporting/

Report List: /EffortReporting/reportList.do?id=80

Report: /EffortReporting/report.do?id=<reportID>&tab=<reportView>

The user cannot link directly to the Search page or any of the other pages in the end-user system.

Linking to any of these locations still requires authorization and initialization, the only difference would be which page is initially presented to the user.

**Root:** redirects to a Report List Page or a Search page depending on the user settings.

There are no request parameters accepted for root.

**Report List page:** displays the report list page with either the users default list, the last list they viewed or a list specified via request parameters on the URI.

### Report List page request parameters:

*id* = a unique id for a specific pre-defined report list. **[optional]** 

**Report page:** displays a report page with a report specified via request parameters on the URI.

## Report page request parameters:

```
id = a unique id for a specific report [required]
```

*tab* = either *edit*, *view*, or *comments*. **[optional]** 

#### **Notes:**

- Requesting a Report page with out a report id or with an invalid report id
  will redirect either to the current page or, in the case where the session
  has not been initialized the Sign In page, and then display an appropriate
  error.
- The default version is always the current version.

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• Only the current version is displayed for the Edit view.

- Edit is the default view for Open reports. Requesting the Edit view for a report that isn't open will roll over to View.
- View is default view for all other reports.

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## Sign In Page

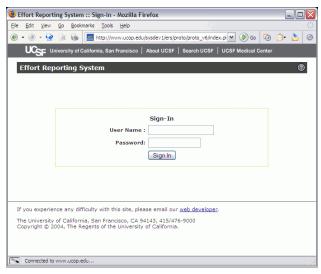


Figure 2, Sign In Page

Most of the campuses will provide their own user authentication method and this page in the system will never be seen.

However, if used the page has the following functionality:

When the page is displayed or refreshed the *User Name* field is always selected.

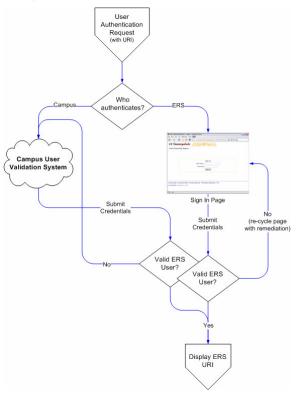
The user types in username and password into the fields provided. The fields are not validated in anyway in the client browser.

Pressing the *Enter key* or clicking the *Sign In* button submits the form.

If the user name and the password are correct, the user is passed into the ERS.

If the user name or the password is incorrect, or the user name *or* the password is empty, the page refreshes with the previous values restored and an error message displayed.

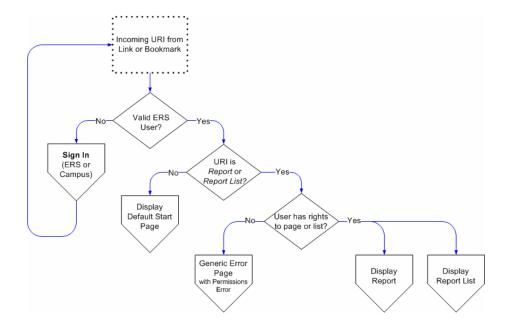
If both the username and the password are empty then the page refreshes but does not display an error.



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**Note:** The user can enter the ERS with a URI that references a specific report list or specific effort report in either edit or view mode. After the user is authenticated the system will attempt to access that URI instead of the root or default display page.

Any other URI references will be ignored and the user will be displayed with the default landing page in the system after user authentication.



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## **Report List Page**

#### Overview

The primary way that effort reports are accessed through the Report List page. (The other way is through a link sent to them via an e-mail from the notification system or by a coordinator or other ERS user.) Users select from a set of defined search criteria which tell the ERS system which reports to display in the list.

For most users there are two pre-defined Report Lists, *My Reports* and *My Projects*. *My Reports* displays all the reports for the currently signed-in user and *My Projects* displays all the reports for all the people working on projects that the currently signed in user is associated with (dependant on access control rules).

The default Report List for individual contributors is My Reports and the default list for PI is My Projects.

The user can define new Report Lists and set any Report List to be their default list.

They can edit and delete Report List that they define but not the defaults.

Some users, such as Departmental Coordinators, may not have pre-defined lists since they do not have projects or reports that they are associated with in the ERS.

## **URI** Interface

The report list is bookmark-able to the extent that the user can link directly to a particular predefined report list.

The mechanics of how the URI is structured is not important to this document. However the URI might look something like:

/ers/list.do?*id*=0987654321

*id* = a unique id for a specific pre-defined report list.

Linking directly to the report list is still subject to authentication and authorization.

#### **Error Cases:**

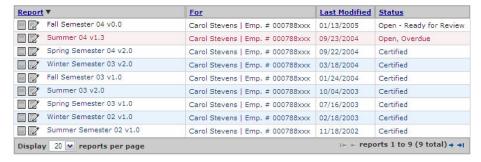
Error	Result
Linking to a report list that doesn't exist	The default report list is displayed to the user.

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#### Page Elements and Behaviors

### The List



Each line of the report list represents a different report for a specific person and specific period.

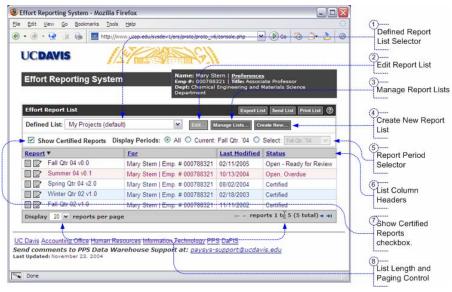
The lines of report list are configurable by each campus.

Each line has a view icon which when clicked takes the user to the View/History view of that report. If the report is in an editable state and the user has access for editing then the line also displays an edit icon.

Lines display alternating colors for readability.

Overdue report lines are highlighted.

## The Rest of the Page



#### 7. Defined Report List Selector dropdown

The defined report list selector dropdown displays a list of pre-defined Report Lists in the order that they were created. Selecting a new report list immediately refreshes the page and displays the new list. (There is not an Update button.)

#### 8. Edit Report List button

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The Edit button is available when displaying a Report List that was defined by the user.

Clicking the *Edit*... button takes the user to the Define/Edit Report List Page with the page populated with the current report list criteria.

## 9. Manage Report Lists button

The *Manage Lists...* button takes the user to the Manage Report Lists page.

#### 10. Create New Report List button

Clicking the *Create New*... button takes the user to an empty Define/Edit Report List Page.

### 11. Report Period Selector

The list of reports can be filtered by reporting period using the report period selector. The default selection is *All*. This is to ensure that users do miss seeing reports assigned to them that are still open in other periods.

The selector offers three radio buttons:

All ......displays reports for all periods for which there are reports.

**Current** ....displays reports for the most recent reporting period.

**Select** ......displays a drop-down list of all reporting periods represented in the current list from which the user can select a specific reporting period.

**Persistence:** Report period is reused until the user selects a different report list.

#### 12. List Column Headers

Report lists can be sorted ascending and descending by column.

The sort is appropriate to the data type of the column.

The sort is across the entire list, not just the currently displayed page.

**Persistence:** The list sort is stored as a user preference and does not change until the user changes the setting.

#### 13. Show Certified Reports checkbox

When checked certified reports are not filtered out of the list.

**Persistence:** Show Certified Reports is stored as a user preference and does not change until the user changes the setting.

#### 14. List Length Control and Paging Control



Report Lists could contain thousands of reports. To make the Report List more manageable it only displays a sub-set of reports from the whole list at one time.

#### **List Length Control**

The list length control allows the user to specify how many reports to display per "page".

The default number of reports displayed in the list is 20.

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**Persistence:** The length of the list is stored as a user preference and does not change until the user changes the setting.

### **Paging Arrows**

The paging arrows allow the user to navigate between pages.

The arrows dim as appropriate when there are no more reports in the list in that *direction*.

**Persistence:** The current *page* of report list page is restored whenever the user displays the *page*. If the list content changes, either by the user selecting a different report list or choosing to change the filters (period and certified reports) or the sort of the current report list, then the *page* is re-set to the top.

### **Page Context**

The control also displays the current page context, displaying the total number of reports in the list and which reports are currently being displayed.

**Note:** *Send List, Print List,* and *Export List* act on the whole list not just the current page.

## **Manage Report Lists**

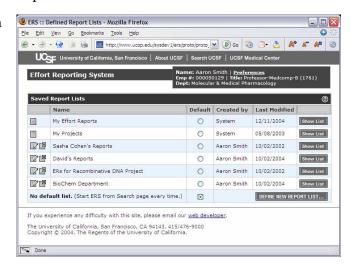
#### Overview

Anyone who wants to view reports for beyond their own reports or the reports of those who are on there projects will need to define their own report lists.

The Saved Report Lists console allows them to manage their saved reports.

From the Saved Report Lists console, the user can:

- Edit a list
- Delete a list
- Set a list as the *default list*
- Display a new report list on the Report List page
- Create a new report list.



**Note:** Report lists defined by an administrator or by the system can not be edited or deleted.

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## Define Report Lists aka. Search

#### Overview

The *Define Report List* page gives the user a way to specify the people, projects, or departments to display reports for, and to save that set to be re-used at any time.

There are a number of ways to get to the *Define Report List* page:

• The primary way is by clicking an *Edit* or a *Create New...* button on either the Report List page or the *Manage Lists Page*.



• For users who do not have a *default* report list specified, a special version of the Define List page is presented them each time they sign in to the ERS.

**Note:** Most users will have a *default* list set up for them by the system or an administrator, or because they selected a list as a default.

## **Design Goals:**

Since the average casual user of the ERS, the majority of users, will be able to use the predefined report lists most of the time, the *Define Report List* page is primarily designed for users who are responsible for reviewing or managing reports across multiple projects and individuals. While there are fewer of these users, they use the system much more frequently.

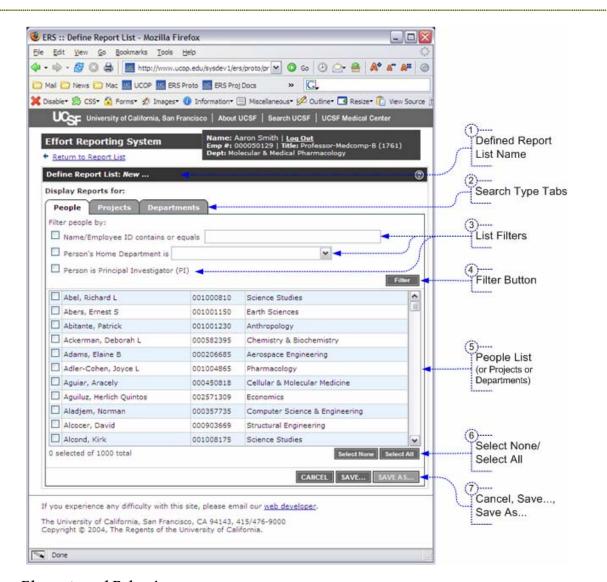
For these users, the *Define Report List* page needs to be flexible and powerful enough to define both large lists with a very broad filter such as a whole department, and small lists with a specific filter, such *a* person. Although the *Define Report List* page appears at first to be very complex, someone approaching the page with a specific search goal in mind should be able to make easy choices to get to the results that they require.

#### **Functionality:**

The Define Report List page is divided into three tabs, People, Projects, and Departments. Each tab is independent from the others. Only the criteria selected for an single tab is used to populate the report list.

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### Page Elements and Behaviors

#### 1. Defined Report List Name field

To save a Report List, you have to give it a unique name.

#### 2. Search type tabs

Search type tabs switch the UI to display different search criteria. Displaying different search criteria requires a round trip to the server.

#### 3. List Filters

List filters are used to limit the length of the list. The list filters are not used as part of the query. The query is based on which items in the list are selected. However, the filters are saved with the report list definition so that they can be displayed when the Display List is edited.

#### 4. The List

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The user uses the list to select the people, projects or departments that they want to see reports for.

## 5. Select None/Select All

*Select None* un-checks all the lines in the list. *Select All* checks all the line in the list. This is done on the client side and does not require a trip to the server.

## 6. Cancel, Save..., Save As...

Cancel returns the user to the previous screen and does not change any data.

Save saves and updates the Report List.

Save As makes a copy of the current list with a new name.

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## **Effort Report Page**

### **URI** Interface

The report page is bookmark-able to the extent that the user can link directly to a particular report, report version, and report view.

The mechanics of how the URI is structured is not important to this document, only that the query string must carry enough information to reference a specific report, version and view. One method might be a URI that looks like:

/ers/report.jsp?id=0987654321&view=history&vers=2.1
id = a unique id for a specific report

*view* = either *edit*, *history*, or *comments*.

**Note:** the Edit and Comments views always show the current version. Edit view is only valid for reports with status Open. The default version for the History view is the current view.

vers = an identifier for the current version of the report.

Linking to a particular report is still subject to authentication and authorization.

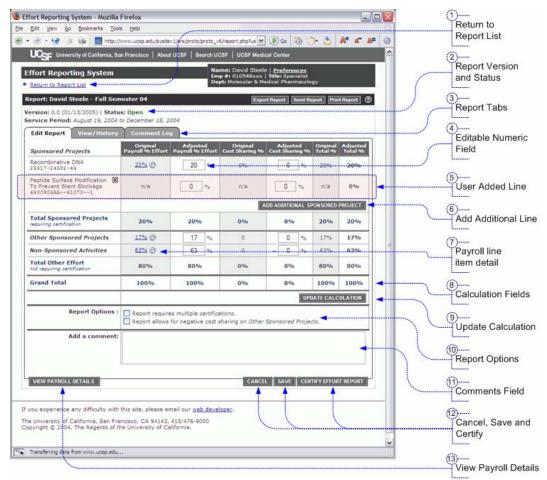
## **Error Cases:**

	Error	Result
Α.	Linking to the edit view with a version.	Edit view always shows the current version.
В.	Linking to the edit view of a report that isn't open.	User is dropped onto the history view. (Edit tab is dimmed indicating that the option is unavailable.)
C.	Linking to a version that doesn't exist.	User is dropped onto the current version.
D.	Linking to a report before user authentication.	User is asked to sign in and then is redirected back the requested page.
Ε.	Linking to a report that the user is not authorized to see.	User is taken to the generic error page with a permissions error.

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### Page Elements and behaviors



#### 1. Return to Report List link

Always links back to the Report List.

JavaScript on editable fields on the page sets a flag if there have been edits. If the user, clicks this button they will be asked if they want to proceed with out saving.

#### 2. Report Version and Status

Displays current report version, last saved date, and report status. Only gets updated on Save or Certify.

### 3. Report Tabs

Tabs switch between different views of the current report.

Users can switch between report tabs without saving changes to the report and with out losing data.

#### 4. Editable Numeric Field

Numeric fields only accept input for numbers, and the following keys: *delete, backspace, tab* and *enter*.

#### 5. User-added Sponsored Project line

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Users can add sponsored projects above the line.

The new line doesn't show any *Original* data since there is none.

The user can add effort and/or cost sharing to added lines.

The system does not force the user to add effort or cost-sharing. Leaving the values 0 does not effect the calculation; it just doesn't make a lot of sense.

An added line stays with the report until a user removes the line using the small delete icon on the row  $(\boxtimes)$ . When clicked the user is asked to confirm the removal.

There are no restrictions on who can remove the line. If the user has the right to edit the report, they have the right to remove the line, even if someone else added it.

If new payroll is added to the report for the added line then the system **must** be sure to use that line. If the new data matches the data that the user put in (with in the margin of error) then the report is saved but not re-issued. If the new data is out-side the margin of error then the report is re-issued.

#### 6. Add Additional Sponsored Project button

Anyone who can edit a report can add a sponsored project above the line.

Clicking the *Add Additional Sponsored Project* button pops-up a project picker window, allowing the user to search for and select a project.

## 7. Payroll line item detail links

All project and other activity lines have a line item payroll details button. Clicking this button displays a pop-up window showing the payroll data and calculations used for that line.

**Note:** The report also contains a button which displays the cumulative detail data for the entire report.

#### 8. Calculation fields

The Adjusted Total column and the *Total Sponsored Projects*, *Total Other Effort*, and *Grand Total* rows automatically update when new values are entered in the editable fields.

#### 9. Update Calculation button

The Update Calculation button forces the calculation fields to update.

**Note:** Since the fields update automatically on all *tested* browsers, we may not need this button.

### 10. Report requires multiple certifications checkbox

Report allows for negative cost sharing on Other Sponsored Projects checkbox

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#### A. Report requires multiple certifications checkbox

The *Report requires multiple certifications* checkbox, changes the layout of the report to allow each editable line of the report to individually certified.

The user is presented with a confirmation dialog upon clicking the checkbox.

See Multi-line Certification below.

**Note:** This option may be restricted to the PAR Coordinator.

## B. Report allows for negative cost sharing on Other Sponsored Projects checkbox

The *Report allows for negative cost sharing on Other Sponsored Projects* checkbox displays an additional negative line below the positive line in Other Sponsored Projects which then becomes part of the equation.

Un-checking the checkbox hides the line and drops the data. The user is presented with a confirmation dialog before discarding the line.

**Note:** This option may be restricted to the PAR Coordinator.

## 11. Comments field

The Comments field allows for a comment to be attached to this version of the report. Comments are not required as there may be cases were a comment would be meaningless.

## 12. Certify Report

The Certify Report button is dimmed and unavailable whenever the report is *out of balance*.

At anytime when the report is balanced, a user who has certification rights can use the button to certify the report. Because certifying the report is the equivalent of signing the report, the user is presented with a strongly worded statement affirming the certification.

#### 13. Save

Save saves a new point version of the report and returns the user to the last view of the Report List.

A report can be saved at any time. (Can someone save if the data hasn't changed? Should we restrict it?)

#### 14. Cancel

Cancel returns the user to their last view of the Report List. If edits have been to the report then the user is asked to confirm the loss of data.

#### 15. View Payroll Details

The View Payroll Details button pops-up a window containing the cumulative detail data for the entire report.

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#### **Multi-line Certification**

When a report allows for multi-line certification, it varies from a normal report in the following ways:

- The Certify Report button at the bottom of the form is removed.
- A column is added to each editable row with a checkbox allowing for line certification.
- When a line is certified, the edit fields are replaced by static text and text is added that marks the line as certified, when it was certified, and by whom.

#### **Actions:**

### Turning on multi-line certification

When a user clicks the multi-line certification checkbox to set multi-line

certification, the user is presented with a confirmation dialog asking if they want to proceed.

The multi-line certification setting is not saved until the user clicks the save button.

### Certifying a multi-line item certification report

Multi-line item certification reports are certified one line at a time. The status of the entire report is considered Open until all the lines of the report are certified.

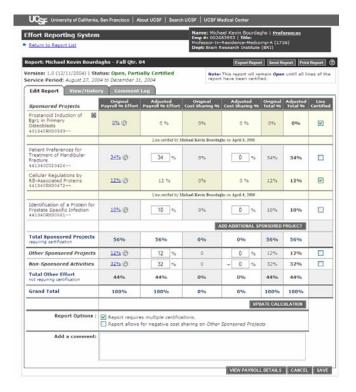
When certifying a line, the user is presented with the same or similar confirmation dialog that they would get when certifying a regular report. They will get that dialog for each and every line.

Line item certifications are not saved until the user clicks the Save button. If a line is certified and the user clicks another link on the page, they will be asked if they want to lose their changes.

A certified line cannot be edited or modified until it is uncertified.

If new data comes in that modifies a certified line of a multi-certification report, then that line becomes un-certified.

Until the report is certified, any user who has permissions to edit a report has the option to *un-certify* any certified line.



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Users can un-certify line items that they did not certify.

When a user un-certifies a line item, the user is presented with a confirmation dialog asking them if they really want to proceed.

Once a multi-certification report is completely certified, it cannot be edited until the entire report is re-issued for certification.

When a multi-certification report is re-issued all the line items are reopened.

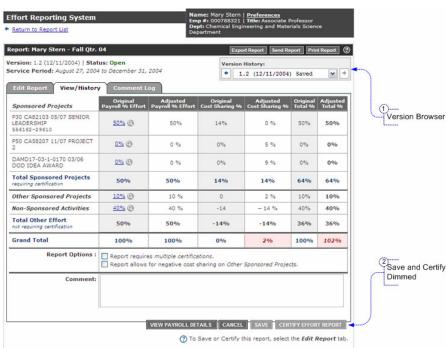
## Turning off multi-line certification

Un-setting the multi-line option for a report drops all the line item certification data and the report status changes from Open, Partially Certified to Open.

If the report is later set back to multi-line certification status, all the previously certified lines must be re-certified.

Un-checking the checkbox displays a confirmation dialog informing the user that all line item certification will be lost.

## View/History Tab



The View/History tab allows the user to view, but not edit, any saved version of the report.

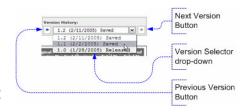
The View/History tab dims out the Certify and Save buttons and displays a Version Selection Controller.

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Version Selection Controller

The *Previous Version button* dims at when displaying the first version of the report.

The *Next Version button* dims when displaying the last version of the report.



The *Version Selector drop-down* allows the user to navigate directly to any saved version of the report and also gives a snapshot of the history of the report.

#### Comments Log Tab

<<Stuff Here>>

### Add Additional Sponsored Project Page

To add a sponsored project to a report, the user clicks the Add Sponsored Project button just below the sponsored projects. This pops-up a new window which allows the user to page through all the sponsored projects in the system.

Selecting a project closes the *Add* window and directs the main window to update displaying the new project line.

Because the list of projects could be very long, the window allows the user to filter the list to narrow the selection.

To allow more projects in the window the center area of the window will scroll.

**Note:** Projects already on the report are automatically filtered from the list before they are presented to the user.

#### **Page Elements**



### 1. Project List filter

The project list filter allows the user to type in part of the Project title or an identifying project id such as an FAU in order to filter the list of projects displayed in the list.

The user can also specify whether the projects are listed by Fund Number or Fund Title.

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### 2. Sort-able Columns

Columns can be sorted to facilitate finding a specific project.

### 3. Select button

Clicking a *Select* button beside a project adds that project to the report.

## 4. List Length Control & Paging Control

The list length control allows the user to limit the number of projects per *page* of the list, and the paging controls to navigate between pages.

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