ERS Release 10.9

Enhancements
2822, 3091, 3234

Bugs
1632, 1886, 2194
2489, 3027, 3043
3046, 3100, 3117
3118, 3135, 3180
3233

Detail Design

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Introduction

ERS release 10.9 includes the following enhancement request:

**Bugzilla Enhancement 2822**
This request asks to remove the HTML versions of compliance reports.

**Bugzilla Enhancement 3091**
This request asks for enhancements to Account PI interface process. Currently, the interface does not provide for removing an account PI from the associated project.

**Bugzilla Enhancement 3234**
This request asks for enhancements to Notification Dispatcher process. Currently, all pending notifications are processed by the notification dispatcher.
In addition, this release includes the following bug fixes:

**Bugzilla Bug 1632**
FS interface process does not set the start date for the funding source record.

**Bugzilla Bug 1886**
Apply HTML escape to all appropriate output fields in the system administration modules.

**Bugzilla Bug 2194**
This request asks for the application to issue an error message if user attempt to certify an already certified report. Currently, the application abends with an exception.

**Bugzilla Bug 2489**
Effort report status at campus level does not calculate percentage of reports on time correctly.

**Bugzilla Bug 3027**
Remove “Required” as one of the statuses available for selection from the drop-down on the report list page.

**Bugzilla Bug 3043**
“Certify Effort Report” button not dimmed and disabled in certain cases.
Bugzilla Bug 3046
Remove “Reopen Effort Report” button from “Comment Log” screen.

Bugzilla Bug 3100
Self-certified matrix on the compliance report is incorrect. When a report is changed from “certified/adjustment required” to “certified”, the system looses the original cerifier information.

Bugzilla Bug 3117
Externalize “Service Period” label to allow for campus specific label.

Bugzilla Bug 3118
Remove system inbuilt searches when the employee id is removed or changed for an ERS user. These searches are associated with the older employee id. and are no longer valid.

Bugzilla Bug 3135
System building searches are not created if the user has subscribed to other PI’s myProjects or myCertifications search.

Bugzilla Bug 3180
Application is not redirecting correctly to the error page if the user is found to be unauthorized during ERS login process.

Bugzilla Bug 3233
Certifier name shows up as “null” on the Not Self-Certified report.

Overview of ERS Modifications

Bugzilla Enhancement 2822
This request asks to remove the HTML versions of compliance reports. This will be accomplished by removing the “HTML” button from the compliance report generation screen.

The following modifications will be made to the ERS system:

• Modify viewReportGen.jspf to remove the “HTML” button.

Bugzilla Enhancement 3091
This request asks for enhancements to Account PI interface process. Currently, the interface does not provide for removing an account PI from the associated project. Campuses have requested that we provide for a campus level config option to allow for enforcing “per account PI per project” business rule.

The following modifications will be made to the ERS system:
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- Modify “Account PI” interface file to include a new field “action_code”. This field will be used to unflag (delete) a PI flagged as account PI for a particular project. Please refer to “interface file specifications” document for the new file format.
  - Add one character action_code to the account PI interface file. Any value other than “D” will process the record as it’s doing currently (flagging the PI as account PI). Action_code “D” will unflag the PI as account PI.

- Define a new config level option:
  - One account PI per project – This enables campuses to specify if the application should enforce one account PI per project. The valid values are “true” or “false”. If the value is set to true, the application will look for any other PI flagged as account PI for the project and will unflag them.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>one-account-pi-per-project</td>
<td>“true” or “false”. Default is “true”</td>
</tr>
</tbody>
</table>

- Change ConfigLoader.java to load new option, one-account-pi-per-project with a default value of true.

- Define new constants in ERSConstants.java

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT_PI_DELETED</td>
<td>Account PI records deleted</td>
</tr>
<tr>
<td>ACCT_PI_REMOVED</td>
<td>Account PI records removed due to one account PI per project rule</td>
</tr>
<tr>
<td>CFG_OPTIONS_ONE_ACCOUNT_PI_PER_PROJECT</td>
<td>Options.one-account-pi-per-project</td>
</tr>
<tr>
<td>ONE_ACCOUNT_PI_PER_PROJECT</td>
<td>oneAccountPIPerProject</td>
</tr>
</tbody>
</table>

- Modify AccountPIRecord.java
  - Change account PI interface file record length from 39 to 40 characters.
  - Create a new method, getActionCode(), to return action code value.

- Modify RunAccountPIInterface.java to read config option, one-account-pi-per-project.

- Modify AccountPIProcessor.java as follows:
  - Check for action_code when updating an ERSPI record.
    - “D” implies unflag the PI as account PI
    - Any other value implies flag the PI as account PI
  - For action_code = “D” and one-account-pi-per-project = “true”
    - Check if there are any other PIs flagged as account PI for the project.
    - If yes, unflag all other PIs as account PI.

- Display any appropriate statistics for housekeeping.

**Bugzilla Enhancement 3234**

This request asks to enhance the notification dispatcher process to send out notification based on event codes. The intention is to process “INTF” notifications on a daily basis for a timely interface file processing notification to campus users.
Add optional parameter to the notification process to access event code. “*ALL” or no parameter should indicate all events processing. If a particular event code is supplied, process pending notifications pertaining to that event code only.

The following modifications will be made to the ERS system:

- Modify RunNotificationDispacther.java class to accept parameter.
- Modify NotificationDispatcher.java class to accept parameter and select pending notifications based on passed event code.
- Define new constants in ERSConstants.java

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTIFY_CD_ALL_EVENTS</td>
<td>“*ALL”</td>
</tr>
</tbody>
</table>

**Bugzilla Bug 1632**

FS interface process does not set the start date for the funding source record. The start date should be set to current system date when adding a new funding source record.

The following modifications will be made to the ERS system:

- Modify FinancePersistence.java class as follows:
  - Modify method setFundingSourceValues() to accept another parameter indicating if it’s a new Funding Source record.
  - Set the start date to current system date if it’s a new Funding Source record.
  - Modify all calls to method setFundingSourceValues() to indicate if it’s a new Funding Source record.

**Bugzilla Bug 1886**

Apply HTML escape to all appropriate output fields in the system administration modules.

The following design considerations apply to this bug fix:

- Struts tag `<c:out>` provides the inbuilt functionality to convert certain special characters to their character encoding codes.
- Struts function library provides a tag, fn:escapeXml, to convert certain special characters to their character encoding codes.

The 2 Struts provided tags will be used to output various user entered values on various ERS administration screens. This was completed for non-administration screens in an earlier release.

The following modifications will be made to the ERS system:

- editEmpIncludeList.jspf
  - Add “escapeXml” to “true” for the following fields:
    - Employee Id
    - Employee name
- editEmpPIIndicator.jspf
  - Use escapeXml function for the following fields:
    - Employee Id
- Employee name

- searchEffortReportStatus.jspf
  - Use escapeXml function for the following fields:
    - Report period version
    - Employee name
    - Employee Id

- viewEmpIncludeList.jspf
  - Use escapeXml function for the following fields:
    - Employee Id
    - Employee name

- viewERSPermissions.jspf
  - Add "escapeXml" to "true" for the following fields:
    - Permission name

- viewERSRoles.jspf
  - Add "escapeXml" to "true" for the following fields:
    - Role name

- viewERSUser.jspf
  - Add "escapeXml" to "true" for the following fields:
    - Employee last name
    - Employee first name
    - Employee login Id
    - Email address

- viewERSUsers.jspf
  - Use escapeXml function for the following fields:
    - User Id
    - User first name
    - User last name
    - Email address

- viewReportingPeriods.jspf
  - Use escapeXml function for the following fields:
    - Period name
    - Schedule name
    - Period description

- viewScheduleTypeModels.jspf
  - Add "escapeXml" to "true" for the following fields:
    - Period group name
Bugzilla Bug 2194

This request asks for the application to issue an error message if user attempt to certify an already certified report.

The following modifications will be made to the ERS system:

- Modify `EditReportAction.java` class to catch “ReportAlreadyCertifiedException” exception and direct the user to “view report” page with an alert message.
- Define new constants in `ERSConstants.java`

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPT_ALREADY_CERTIFIED</td>
<td>error.edit.rpt.already.certified</td>
</tr>
</tbody>
</table>

- Define new `ApplicationResources.properties` entry for the alert message

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>error.edit.rpt.already.certified</td>
<td>Report has already been certified. Please click the Reopen Effort Report button to make any changes.</td>
</tr>
</tbody>
</table>

Bugzilla Bug 2489

Effort report status at summary level and campus level does not calculate percentage of reports on time correctly. The reports with status “Adjustment Required” should be excluded from the total reports used in the calculation.

The following modifications will be made to the ERS system:

- Modify the following JasperReports templates to calculate \[ \text{RequireCertification} = ( \text{F(statusCode).equals("Not Required") || F(statusCode).equals("Adjustment Required") ? new Integer(0) : F(statusCount) ).} \]
  - `HomeDeptStatusSummarybyDepartment.jrxml`
  - `HomeDeptStatusSummarybyPeriod.jrxml`
  - `OrgStatusSummarybyDepartment.jrxml`
  - `OrgStatusSummarybyPeriod.jrxml`
  - `CampusLevelStatusSummarybyPeriod.jrxml`

Bugzilla Bug 3027

Remove “Required” as one of the statuses available for selection from the drop-down on the report list page. This status is internal to ERS application and should not be visible to users.
The following modifications will be made to the ERS system:

- **Modify `reportList.jspf` to remove the “Required” status from the drop-down list.**

**Bugzilla Bug 3043**

“Certify Effort Report” button is not dimmed and disabled in certain cases. This button should not be active in the following 2 cases:

- Report has unsaved changes
- Report is in multi-line certification mode

The following modifications will be made to the ERS system:

- **Modify `report.jspf` to remove the existing `onclick` function associated with “Certify Effort report” button**
- **Modify `ers_report_scripts.jspf` to add `onclick` function to “Certify Effort report” button only when applicable.**
  - Disable “Certify Effort report” button if the report is in multi-line certification mode
  - Report has unsaved data

**Bugzilla Bug 3046**

Remove “Reopen Effort Report” button from “Comment Log” screen. This button does not work at this point.
The following modifications will be made to the ERS system:

- **Modify** `report-comments.jspf` to remove the “Reopen Effort Report” button from the screen.

**Bugzilla Bug 3100**

Self-certified matrix on the compliance report is incorrect. When a report is changed from “certified/adjustment required” to “certified”, the system looses the original certifier information. This leads to incorrect reporting numbers in the compliance report.

The following modifications will be made to the ERS system:

- **Modify** `UpdateEffortReportStatusAction.java` to carry forward the certifier information after building the next version of the effort report.

**Bugzilla Bug 3117**

Externalize “Service Period” label to allow for campus specific label on the report view/edit page.

The following modifications will be made to the ERS system:

- **Define new label in** `ExternalizedStrings.xml`

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServicePeriodLabel</td>
<td>Service Period</td>
</tr>
</tbody>
</table>

- **Modify** `ers_report_data_header.jspf` to use the external label for “Service Period”.
- **Modify** the following related help screens to use the external label for “Service Period”.
  - `reportComments.jspf`
  - `reportEdit.jspf`
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Bugzilla Bug 3118

Remove system inbuilt searches when the employee id is removed or changed for an ERS user. These searches are associated with the older employee id and are no longer valid.

ERS already had functionality to delete a search. This part of the code will be re-used to implement this.

The following modifications will be made to the ERS system:

- Modify `UpdateERSUserAction.java` as follows:
  - Check if the user has change employee id. If yes, delete all system builtin searches.
  - Searches are driven by user’s “login id”. Get all stored searches for the login id.
  - For each system build in search (search type = ‘B’) owned by the login id (owner indicator = ‘Y’), call existing method `removeSearch()` in `ISearchManager` class. This method will take care of any search subscription records, default search settings etc. There are three system builtin searches – My effort Reports, My Projects and My Certifications.

Bugzilla Bug 3135

System builtin searches are not created if the user has subscribed to other PI’s myProjects or myCertifications searches.

The application uses “search name” to check if a system builtin search already exists. If a user has subscribed to another PI’s search, the application assumes that the search already exists.

The following modifications will be made to the ERS system:

- Modify `UserHousekeeping.java` as follows:
  - Change the logic of checking if a system builtin search already exists to also check for search owner indicator. Only searches with owner indicator as “Y” should be considered.

Bugzilla Bug 3180

Application is not redirecting correctly to the error page if the user is found to be unauthorized during ERS login process.

For external authentication process, the application check ERSUser table to validate if the user exists and is active. In case of the error, the user is redirected to an error page defined in the `ERSConfig.xml` as `error-redirect-url`. The unauthorized flag is stored in user session. However, the redirection process, incorrectly, checks for this flag at server level.

The following modifications will be made to the ERS system:

- Modify `Session.java` as follows:
  - Check for “ExternalUserSignonError” attribute in the user session.
Bugzilla Bug 3233

Not Self_certified report shows certifier name as “null” if missing.

The following modifications will be made to the ERS system:

- Modify Not Self_certified report iReport template to print blacks if the certified name is null.
Appendix A – ERS Changed Entities

**jasperReport Files**

- The following jasperReport files have been added or changed:
  - EffortReporting/WebRoot/JReports/CampusLevelStatusSummarybyPeriod.jasper
  - EffortReporting/WebRoot/JReports/HomeDeptStatusSummarybyDepartment.jasper
  - EffortReporting/WebRoot/JReports/HomeDeptStatusSummarybyPeriod.jasper
  - EffortReporting/WebRoot/JReports/NotSelfCertDetailbyOrg.jasper
  - EffortReporting/WebRoot/JReports/NotSelfCertDetailbyPeriod.jasper
  - EffortReporting/WebRoot/JReports/OrgStatusSummarybyDepartment.jasper
  - EffortReporting/WebRoot/JReports/OrgStatusSummarybyPeriod.jasper
  - EffortReporting/WebRoot/jrxml/CampusLevelStatusSummarybyPeriod.jrxml
  - EffortReporting/WebRoot/jrxml/HomeDeptStatusSummarybyDepartment.jrxml
  - EffortReporting/WebRoot/jrxml/HomeDeptStatusSummarybyPeriod.jrxml
  - EffortReporting/WebRoot/jrxml/NotSelfCertDetailbyOrg.jrxml
  - EffortReporting/WebRoot/jrxml/NotSelfCertDetailbyPeriod.jrxml
  - EffortReporting/WebRoot/jrxml/OrgStatusSummarybyDepartment.jrxml
  - EffortReporting/WebRoot/jrxml/OrgStatusSummarybyPeriod.jrxml

**JavaScripts**

- The following JavaScripts have been added or changed
  - EffortReporting/WebRoot/scripts/ers_report_scripts.jspf

**JSPs**

- The following JSPs have been added or changed
  - EffortReporting/WebRoot/bodies/report-comments.jspf
  - EffortReporting/WebRoot/bodies/report.jspf
  - EffortReporting/WebRoot/bodies/reportList.jspf
  - EffortReporting/WebRoot/bodies/admin/editEmpIncludeList.jspf
  - EffortReporting/WebRoot/bodies/admin/editEmpPIIndicator.jspf
  - EffortReporting/WebRoot/bodies/admin/searchEffortReportStatus.jspf
  - EffortReporting/WebRoot/bodies/admin/viewERSPermissions.jspf
  - EffortReporting/WebRoot/bodies/admin/viewERSRoles.jspf
  - EffortReporting/WebRoot/bodies/admin/viewERSUser.jspf
  - EffortReporting/WebRoot/bodies/admin/viewERSUsers.jspf
  - EffortReporting/WebRoot/bodies/admin/viewEmpIncludeList.jspf
  - EffortReporting/WebRoot/bodies/admin/viewReportGen.jspf
  - EffortReporting/WebRoot/bodies/admin/viewReportingPeriods.jspf
  - EffortReporting/WebRoot/bodies/admin/viewScheduleTypeModels.jspf
  - EffortReporting/WebRoot/bodies/admin/viewScheduleTypes.jspf
  - EffortReporting/WebRoot/tiles/ers_report_data_header.jspf

**Configuration Files**

- The following Struts configuration files have been added or changed
Java Classes

- The following Java classes have been added or changed

  EffortReporting/src/main/edu/ucop/ers/ERSConstants.java
  EffortReporting/src/main/edu/ucop/ers/ERSVersion.java
  EffortReporting/src/main/edu/ucop/ers/access/UCOPAdminAuthorizerImpl.java
  EffortReporting/src/main/edu/ucop/ers/admin/utility/reports/AbstractCertificationRptDelegate.java
  EffortReporting/src/main/edu/ucop/ers/admin/utility/reports/SelfCertificationRptDelegate.java
  EffortReporting/src/main/edu/ucop/ers/generate/AccountPIProcessor.java
  EffortReporting/src/main/edu/ucop/ers/generate/AccountPIRecord.java
  EffortReporting/src/main/edu/ucop/ers/generate/FinancePersistence.java
  EffortReporting/src/main/edu/ucop/ers/generate/batch/RunAccountPIInterface.java
  EffortReporting/src/main/edu/ucop/ers/generate/batch/RunNotificationDispatcher.java
  EffortReporting/src/main/edu/ucop/ers/generate/batch/RunSingleGenerate.java
  EffortReporting/src/main/edu/ucop/ers/userinfo/UserHousekeeping.java
  EffortReporting/src/main/edu/ucop/ers/utility/ConfigLoader.java
  EffortReporting/src/main/edu/ucop/ers/utility/NotificationDispatcher.java

Struts Action Classes

- The following action classes have been added or changed

  EffortReporting/src/main/edu/ucop/ers/admin/struts/action/Session.java
  EffortReporting/src/main/edu/ucop/ers/admin/struts/action/security/UpdateERSUserAction.java
  EffortReporting/src/main/edu/ucop/ers/admin/struts/action/tablemaint/UpdateEffortReportStatusAction.java
  EffortReporting/src/main/edu/ucop/ers/struts/action/EditReportAction.java

Hibernate Entities

- The following hibernate entities have been added or changed

  None

Help Files

- The following help files have been added or changed

  EffortReporting/WebRoot/help/reportComments.jspf
  EffortReporting/WebRoot/help/reportEdit.jspf
  EffortReporting/WebRoot/help/reportView.jspf
  EffortReporting/WebRoot/help/signIn.jspf

Database Scripts

- The following action classes have been added or changed

  EffortReporting/WebRoot/sql/ERS_R10-9_UPGRADE_DB2.SQL
  EffortReporting/WebRoot/sql/ERS_R10-9_UPGRADE_ORACLE.SQL
  EffortReporting/WebRoot/sql/ERS_R10-9_UPGRADE_SYBASE.SQL