

# **ERS Release 10.8**

**Enhancements**  
**2834, 3030, 3036**  
**3049**

**Bugs**  
**1156, 2471, 2946**  
**3040, 3083, 3119**  
**3129**

**Detail Design**

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## **Introduction**

ERS release 10.8 includes the following enhancement request:

### **Bugzilla Enhancement 2834**

This request asks for retaining the 1% tolerance limit when the multi-line reports are edited/certified by on-line transaction.

### **Bugzilla Enhancement 3030**

This request asks for systematically correct any unrecognized earnings during the FS file interface.

### **Bugzilla Enhancement 3036**

This request asks to provide campuses ability to configure default search tab for department type search.

### **Bugzilla Enhancement 3049**

This request asks enabling campuses to add “Location Filter” for running compliance reports at campus level.

In addition, this release includes the following bug fixes:

### **Bugzilla Bug 1156**

When viewing a previous version of a report, clicking the view payroll detail button shows the correct version earnings. If you click export however, it exports the version earnings for the most recent report.

### **Bugzilla Bug 2471**

When the late pay recalculates the report percentages, it zeroes out the calculated figures if the percentage is over 100% or negative. This bug asks ERS to retain the actual calculated percentages.

### **Bugzilla Bug 2946**

Current user input scrubbing has not been effective and causing too many restrictions for the users.

### **Bugzilla Bug 3040**

If the user does not have a default search list, make myCertifications as the default search list. If the myCertifications list is newly created by the system, change the default search list to myCertifications.

### **Bugzilla Bug 3083**

On the edit user and add permission screens, validate the employee id to be maximum 9 characters.

## **Bugzilla Bug 3119**

User unable to login if employee id is missing for a subscribed search

## **Bugzilla Bug 3129**

Blank message log when only one log message to display.

## **Overview of ERS Modifications**

### **Bugzilla Enhancement 2834**

This enhancement asks for conditionally applying the 1% tolerance rule for on-line transaction for retaining report certifications. This applies to reports marked for multiple line certifications only.

The following modifications will be made to the ERS system:

- Modify EditReport.java to determine the final status of the report (Certified/Certified Adjustment Required) based on 1% tolerance rule.
- Modify ers\_report\_scripts.jspf to display payroll transfer alert message based on 1% tolerance rule.

### **Bugzilla Enhancement 3030**

This enhancement asks for identifying effort reports with unrecognized earnings during the processing of an FS interface file and systematically correcting those reports.

The following design considerations apply to this enhancement:

- Only “open” effort reports will be corrected
- Modify FS interface job to cache all unrecognized earnings upfront, for processing efficiency
- Current late pay process will be utilized to correct the impacted reports
- Late pay process should be able to identify the reason for correcting a report

The following modifications will be made to the ERS system:

- Modify table ERSLATEPAY to add the following column.

Column Name	Type
REASON_CODE	CHAR(2 BYTE) NULL.

- Define new constants in ERSConstants.java

Name	Value
LPAY_PAR_INTERFACE	LP
LPAY_FS_INTERFACE	FS

- Update ERSLATEPAY table database definition to include the new REASON\_CODE column.

- Modify PAR interface to cater to existing late pay records.
  - If the late pay record has been created by FS interface, replace it with the new record.
- Modify FS interface to check for existing related unrecognized earnings.
  - Cache all unrecognized earnings at the beginning of the job. Consider only open effort reports.
  - For every new FS being added, check for any existing unrecognized earning records.
  - If an unrecognized earning is found, add a new late pay record for the corresponding employee and reporting period.
  - Late pay record from PAR interface will take precedence.
  - Generate late pay reports will rebuild the report and classify the unrecognized earnings to the right categories.
- Modify GeberateLateReports.java to cater to new parameter – REASON CODE. The late pay processing may be triggered by a late payroll transaction (PAR interface) or a new FAU (FS interface).
  - Modify LateEarningsConsumerImpl.java to cater to existing earning version records. Since the unrecognized earnings are marked as consumed and are added to earnings version as “invalid earnings”, we need to update these records with the correct project id. And category code.
  - ReportBuilder.java filters out any consumed earning to see if a report needs to be rebuilt. Since the unrecognized earnings are marked as consumed, they will not trigger a report rebuild. Modify the logic so that if the REASON\_CODE is “FS”, do not filter out consumed earnings. Modify logic which determines if the report needs to be rebuild to look at the old consumed earnings as well.
  - Modify VersionRebuild.java to populate system generated comments for the new version of the report based on REASON\_CODE.

### **Bugzilla Enhancement 3036**

This enhancement asks to provide campuses capability to specify the default search tab for department type search. In addition to this, campuses can also specify the default search type, among the 5 available search types.

The following modifications will be made to the ERS system:

- Define two new config level option:
  - Search default tab – This enables campuses to specify the default search tab. Valid values will be between 1 and 5.
  - Department Search default selection – This enables campuses to specify the default department type for department based search tab. Valid values will be between 1 and 3.

Name	Value
search-default-tab	“1”-“5”. Default “1”.
dept-search-default-selection	“1”-“3”. Default “1”.

- Change ConfigLoader.java to load new options.
- Change JavaScript resetFilter() to reset department type selection.
- Modify DefineReportListAction.java to default new search type based on campus option.
- Modify FilterByDept.java to default department type for a new search based on campus option.
- Define new constants in ERSConstants.java

Name	Value
<b>CFG_OPTIONS_SEARCH_DEFAULT_TAB</b>	Options.search-default-tab
<b>CFG_OPTIONS_DEPT_SEARCH_DEFAULT_SELECTION</b>	Options.dept-search-default-selection

### **Bugzilla Enhancement 3049**

This enhancement asks to provide campuses capability to filter compliance reports by location.

The following design considerations apply to this enhancement:

- Location is identified by the first character of an FAU
- Location filter will be applicable to “campus level” reports only.
- A new batch interface file will load the location code and location name translations.

The following database changes will be made to the ERS system:

- Define new DB2 table, ERSLOCATIONCODE, to store location code translation.

Column Name	Type
<b>LOCATION_CD</b>	CHAR(1 BYTE) NOT NULL. Primary Key.
<b>LOCATION_NAME</b>	VARCHAR2(75 BYTE) NOT NULL
<b>ADD_DATE</b>	DATE NOT NULL
<b>ADD_USER</b>	VARCHAR2(60 BYTE) NOT NULL
<b>CHG_DATE</b>	DATE
<b>CHG_USER</b>	VARCHAR2(60 BYTE) e

- Modify table ERS ComprptParams to add the following column.

Column Name	Type
<b>LOCATION_FILTER</b>	CHAR(4 BYTE) NULL.

- Modify view ERSHomeDeptStatusReport to select column AER\_CD so as to be able to join ERSRptFundingSources table.

The following modifications will be made to the ERS system:

- Define a new config level option:
  - Enable location filter – This enables campuses to specify location filter as one of the compliance reports search criteria.

Name	Value
<b>use-location-filter</b>	true or false. Default “false”.

- New interface file specification will be defined for location code/name
- Create a new JUnit test for new location file interface
- Define new constants in ERSConstants.java

Name	Value
<b>LOCATION_CODE</b>	LOCC
<b>LOCATION_CODE_RECORDS</b>	Total Location Interface records processed
<b>LOCATION_CODE_ADDED</b>	Location Code added
<b>LOCATION_CODE_BAD_LOCATION_CODE</b>	Location records with invalid Location Code
<b>LOCATION_CODE_BAD_LOCATION_NAME</b>	Location records with invalid Location Name
<b>LOCATION_CODE_RECORDS_SKIPPED</b>	Empty Location Interface records skipped
<b>CR_LOCATION_SELECT_KEY</b>	locationSelect
<b>CR_ALL_LOCATION_SELECT_KEY</b>	AllLocationSelect
<b>LOCATION_CODE_KEY</b>	location.code.err
<b>LOCATION_NAME_KEY</b>	location.name.err
<b>CFG_OPTIONS_USE_LOCATION_FILTER</b>	Options.use-location-filter
<b>USE_LOCATION_FILTER</b>	useLocationFilter

- Define new ApplicationResources.properties entries

Name	Value
<b>location.code.err</b>	Location Code missing or not valid in the Location interface record
<b>location.name.err</b>	Location Name missing or not valid in the Location interface record

- Hibernate objects
  - Add AER\_CD to HomeDeptStatusReport.hbm
  - Create new LocationCode.hbm
  - Add Location\_Filter to ComplianceReport.hbm
  - Add mapping.xml entry for LocationCode table.

- Create new Location code interface process
- Modify various compliance report classes to include Location\_Filter.
- Define a new config level option “use location filter”. Default will be false. This option will control if the location filter is in use by a campus.
- Change ConfigLoader.java to load new option.
- Include location name in the header of report title page.
- Modify AbstractCertificationRptDelegate.java to join Funding Sources table for location filter and include additional where condition for the same.

### **Bugzilla Bug 1156**

This bug asks us to correct the effort report drilldown export function. It uses latest report version's earnings, not current version.

The following modifications will be made to the ERS system:

- Define new constants in ERSConstants.java

Name	Value
VIEW_RPT_ID	viewRptId

- ReportAction.java
  - Save current report id in session
- ScrollVersionAction.java
  - Save current report id in session
- report-details\_scripts.jspf
  - Use current report id stored in session to export payroll details
- report-view.jspf
  - Change the report id on the “View Payroll details” button on top of the screen to correspond to the report being viewed.

### **Bugzilla Bug 2471**

During late pay transaction processing, currently, ERS zeroes out any calculated percentages if the total is over 100% or is negative. This bug asks us to retain the calculated values.

The following modifications will be made to the ERS system:

- Modify ReportBuilder.java to retain the calculated totals even if the total is over 100% or negative.

### **Bugzilla Bug 2946**

For application security, ERS implemented user input scrubbing to eliminate special characters. This bug asks us remove input scrubbing and instead use output escaping of special characters.

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 screen. At this point, we are restricting these changes to non-administration screens.

The following modifications will be made to the ERS system:

- Remove the currently implemented servlet filter which scrubs all of the user inputs.
- `report-list-manager.jspf`
  - Search list name
- `reportList.jspf`
  - Search list drop-down
- `defineList.jspf`
  - Search name
- `viewReportGen.jspf`
  - Threshold percentage
- `report-print.jspf`
  - Sponsored projects - Adjusted payroll percentage
  - Sponsored projects - Adjusted cost sharing percentage
  - Other sponsored projects - Adjusted payroll percentage
  - Other sponsored projects – Positive Adjusted cost sharing percentage
  - Other sponsored projects – Negative Adjusted cost sharing percentage
  - Non-sponsored - Adjusted payroll percentage
  - Non-sponsored projects – Adjusted cost sharing percentage
- `report-view.jspf`
  - Sponsored projects - Adjusted payroll percentage
  - Sponsored projects - Adjusted cost sharing percentage
  - Other sponsored projects - Adjusted payroll percentage
  - Other sponsored projects – Positive Adjusted cost sharing percentage
  - Other sponsored projects – Negative Adjusted cost sharing percentage
  - Non-sponsored - Adjusted payroll percentage
  - Non-sponsored projects – Adjusted cost sharing percentage
- `report.jspf`
  - Sponsored projects - Adjusted payroll percentage
  - Sponsored projects - Adjusted cost sharing percentage
  - Other sponsored projects - Adjusted payroll percentage
  - Other sponsored projects – Positive Adjusted cost sharing percentage

- Other sponsored projects – Negative Adjusted cost sharing percentage
  - Non-sponsored - Adjusted payroll percentage
  - Non-sponsored projects – Adjusted cost sharing percentage
- report-comments-export.jspf
  - Change “escapeXml” to “true” for comment
- report-comments.jspf
  - Change “escapeXml” to “true” for comment
  - Use escapeXml function for comments in user input text area
- report-export.jspf
  - Change “escapeXml” to “true” for comment
- report-print.jspf
  - Change “escapeXml” to “true” for comment
- report-view.jspf
  - Change “escapeXml” to “true” for comment
- report.jspf
  - Use escapeXml function for comments in user input text area

### **Bugzilla Bug 3040**

This bug asks us to make myCertifications search list as the default search list.

The following modifications will be made to the ERS system:

- Modify userHousekeeping.java to assign default search list in the following order:
  - myCertifications → myProjects → myReports
  - If the myCertifications list is being created for the first time, change the default search to myCertifications list.

### **Bugzilla Bug 3083**

The DB2 database driver fails if the employee Id is over 9 characters in length. This bug asks us to validate employee Id to be maximum 9 characters.

The following modifications will be made to the ERS system:

- Modify EditERSUserForm.java to validate employee Id length.
- ApplicationResources.properties
  - Change message pertaining to invalid employee id to “The employee id, {0}, does not exist or is more than 9 characters in length”.
- Modify ValidateResource.java to limit employee id to maximum 9 characters.

### **Bugzilla Bug 3119**

The application fails if one of the subscribed searches owner's user record is missing the employee id.

The following modifications will be made to the ERS system:

- Modify CriteriaShortStructure.java to check for null owner employee name for subscribable searches.

### **Bugzilla Bug 3129**

The application fails to display the log message on "system administration" screen if the number of messages is just one. For single message, the system tries to transfer control to single message display screen.

The following modifications will be made to the ERS system:

- Modify ViewStatusLogsAction.java always transfer control to multiple message screen. On this screen, the user can select the message to see the details or specify a new selection criteria to view messages.

## **Appendix A – ERS Changed Entities**

### **jasperReport Files**

- The following jasperReport files have been added or changed:

/WebRoot/JReports/CampusLevelStatusSummarybyPeriod.jasper  
/WebRoot/JReports/CertCountCampusSummary.jasper  
/WebRoot/JReports/NotSelfCertCampusSummary.jasper

/WebRoot/jrxml/CampusLevelStatusSummarybyPeriod.jrxml  
/WebRoot/jrxml/CertCountCampusSummary.jrxml  
/WebRoot/jrxml/NotSelfCertCampusSummary.jrxml

### **JavaScripts**

- The following JavaScripts have been added or changed

/WebRoot/scripts/ers\_admin\_gen\_reports.jspf  
/WebRoot/scripts/ers\_definelist\_scripts.jspf  
/WebRoot/scripts/ers\_report\_scripts.jspf  
/WebRoot/scripts/report-details\_scripts.jspf

### **JSPs**

- The following JSPs have been added or changed

/WebRoot/bodies/definelist.jspf  
/WebRoot/bodies/report-comments-export.jspf  
/WebRoot/bodies/report-comments.jspf  
/WebRoot/bodies/report-export.jspf  
/WebRoot/bodies/report-list-manager.jspf  
/WebRoot/bodies/report-print.jspf  
/WebRoot/bodies/report-view.jspf  
/WebRoot/bodies/report.jspf  
/WebRoot/bodies/reportList.jspf  
/WebRoot/bodies/admin/viewReportGen.jspf

### **Struts and Spring Framework Configuration Files**

- The following Struts configuration files have been added or changed

/WebRoot/WEB-INF/web.xml  
/WebRoot/config/ERSConfig.xml  
/src/main/mappings.xml  
/src/main/edu/ucop/ers/struts/ApplicationResources.properties

### **Java Classes**

- The following Java classes have been added or changed

/src/main/edu/ucop/ers/ERSConstants.java

/src/main/edu/ucop/ers ERSVersion.java  
/src/main/edu/ucop/ers/admin/struts/action/reports/compliance/CreateReportGenAction.java  
/src/main/edu/ucop/ers/admin/struts/action/reports/compliance/LoadCompReportParamsAction.java  
/src/main/edu/ucop/ers/admin/struts/action/reports/compliance/SaveReportGenAction.java  
/src/main/edu/ucop/ers/admin/struts/action/reports/compliance/ViewReportGenAction.java  
/src/main/edu/ucop/ers/admin/struts/action/ScrollVersionAction.java  
/src/main/edu/ucop/ers/admin/struts/action/ReportAction.java  
/src/main/edu/ucop/ers/admin/struts/form/EditERSUserForm.java  
/src/main/edu/ucop/ers/admin/struts/form/ReportGenForm.java  
/src/main/edu/ucop/ers/admin/utility/reports/AbstractCertificationRptDelegate.java  
/src/main/edu/ucop/ers/admin/utility/reports/AbstractHomeDeptDelegate.java  
/src/main/edu/ucop/ers/admin/utility/reports/MultipleCertificationsReportDelegate.java  
/src/main/edu/ucop/ers/admin/utility/reports/SelfCertificatonRptDelegate.java  
/src/main/edu/ucop/ers/admin/utility/ValidateResource.java  
/src/main/edu/ucop/ers/domain/Earning.java  
/src/main/edu/ucop/ers/domain/LatePay.java  
/src/main/edu/ucop/ers/domain/LatePayPK.java  
/src/main/edu/ucop/ers/domain/LocationCode.java  
/src/main/edu/ucop/ers/search/CriteriaShortStructure.java  
/src/main/edu/ucop/ers/userinfo/UserHousekeeping.java  
/src/main/edu/ucop/ers/utility/ConfigLoader.java  
/src/main/edu/ucop/ers/web/CompReportHelper.java  
/src/main/edu/ucop/ers/editcert/DrillDownBuilder.java  
/src/main/edu/ucop/ers/editcert/EditReport.java  
/src/main/edu/ucop/ers/generate/GenerateLateReports.java  
/src/main/edu/ucop/ers/generate/InterfaceFinanceProcessor.java  
/src/main/edu/ucop/ers/generate/InterfaceLocationProcessor.java  
/src/main/edu/ucop/ers/generate/InterfacePARProcessor.java  
/src/main/edu/ucop/ers/generate/LateEarningsConsumerImpl.java  
/src/main/edu/ucop/ers/generate/LocationRecord.java  
/src/main/edu/ucop/ers/generate/ReportBuilder.java  
/src/main/edu/ucop/ers/generate/VersionRebuild.java  
/src/main/edu/ucop/ers/generate/batch/RunAccountPIInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunCostSharingInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunDepartmentInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunFinanceInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunGenerate.java  
/src/main/edu/ucop/ers/generate/batch/RunGenerateLateReports.java  
/src/main/edu/ucop/ers/generate/batch/RunGenerateReportFundingSources.java  
/src/main/edu/ucop/ers/generate/batch/RunLocationInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunNightlyMaintenance.java  
/src/main/edu/ucop/ers/generate/batch/RunNotificationDispatcher.java  
/src/main/edu/ucop/ers/generate/batch/RunOrgDeptInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunOrgFlatBuilder.java  
/src/main/edu/ucop/ers/generate/batch/RunPARInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunPIupdater.java  
/src/main/edu/ucop/ers/generate/batch/RunPilotParticipantInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunReportPeriodInit.java  
/src/main/edu/ucop/ers/generate/batch/RunResourceGenerator.java  
/src/main/edu/ucop/ers/generate/batch/RunSponsoredProjectSearchProcessorInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunUserInterface.java  
/src/main/edu/ucop/ers/generate/batch/RunWosEmployeeInterface.java

## Struts Action Classes

- The following action classes have been added or changed

/src/main/edu/ucop/ers/struts/action/DefineReportListAction.java  
/src/main/edu/ucop/ers/struts/action/FilterByDept.java  
/src/main/edu/ucop/ers/admin/struts/action/ ViewStatusLogsAction.java

## Hibernate Entities

- The following hibernate entities have been added or changed

/src/main/edu/ucop/ers/domain/complianceReport.hbm  
/src/main/edu/ucop/ers/domain/homeDeptStatusReport.hbm  
/src/main/edu/ucop/ers/domain/latepay.hbm  
/src/main/edu/ucop/ers/domain/locationCode.hbm  
  
/src/main/edu/ucop/ers/domain/base/BaseComplianceReport.java  
/src/main/edu/ucop/ers/domain/base/BaseHomeDeptStatusReport.java  
/src/main/edu/ucop/ers/domain/base/BaseHomeDeptStatusReportDAO.java  
/src/main/edu/ucop/ers/domain/base/BaseLatePay.java  
/src/main/edu/ucop/ers/domain/base/BaseLatePayDAO.java  
/src/main/edu/ucop/ers/domain/base/BaseLatePayPK.java  
/src/main/edu/ucop/ers/domain/base/BaseLocationCode.java  
/src/main/edu/ucop/ers/domain/base/BaseLocationCodeDAO.java  
/src/main/edu/ucop/ers/domain/dao/LocationCodeDAO.java

## Database Scripts

- The following action classes have been added or changed

/WebRoot/sql/ERS\_CREATE\_TABLE\_SCRIPT\_DB2\_V8.SQL  
/WebRoot/sql/ERS\_CREATE\_TABLE\_SCRIPT\_ORACLE.SQL  
/WebRoot/sql/ERS\_CREATE\_TABLE\_SCRIPT\_SYBASE.SQL  
  
/WebRoot/sql/ERS\_R10-8\_UPGRADE\_DB2.SQL  
/WebRoot/sql/ERS\_R10-8\_UPGRADE\_ORACLE.SQL  
/WebRoot/sql/ERS\_R10-8\_UPGRADE\_SYBASE.SQL