Kuali Rice 2.4.0-M5 Release Notes

Released: 04-18-2014

Table of Contents

Overview

Welcome to Rice 2.4.0-M5!

Release Highlights

Highlights of this release include:

• Introduction of the KRAD Data Layer and Java Persistence API (JPA) support

• Core gap analysis and conversion scripts for KNS to KRAD conversion

• Significant performance improvements for KRAD

• [Spring Binding Security](#)

• KRAD UIF View Lifecycle Refactoring

• Many bug fixes

Download

Kuali Rice 2.4.0-M5 can be downloaded from the Rice website at http://kuali.org/rice/download.

There are three different distributions of Rice available: source, binary and server. Please read the Installation Guide for more details on each of these distributions.

Applications can also consume Rice from the maven site at http://search.maven.org/#search|ga|1| org.kuali.rice.

Documentation

API Documentation can be found at http://site.kuali.org/rice/2.4.0-M5/apidocs/index.html

Formal documentation can be found at http://site.kuali.org/rice/2.4.0-M5/reference/html/index.html. This documentation is still in the process of review and update which will continue through subsequent releases, so please follow the notes in each document to report any outdated information.

Contact

If you encounter any difficulty, please don't hesitate to contact the Rice team on our public collaboration mailing list at `<rice.collab@kuali.org>`. Please indicate that you are using the 2.4.0-M5 version of Rice.

Major Changes

Java Persistence API (JPA) Support and Internal Conversion

One of the major deliverables for version 2.4.0-M5 of Kuali Rice was support for the Java Persistence API (JPA) and conversion away from the legacy OJB framework for object-relational mapping within Kuali. This goal has been accomplished with this release of Kuali Rice.

The specific implementation of JPA being used is the JPA 2.1 reference implementation of EclipseLink, version 2.5.1.

As part of this effort, a number of changes were made to Kuali Rice itself:

• Internal services and data access objects within Kuali Rice were modified to use JPA instead of OJB.

• A number of helper classes were provided to make JPA setup and configuration simpler, specifically:

  • `KradEclipseLinkEntityManagerFactoryBean` which simplifies Spring-based configuration of JPA

  • JPA 2.1 converter classes to help with standard data conversions that are commonly used by Rice-based applications (such as converter "Y" and "N" in the database to corresponding boolean values)

  • Custom annotations allowing for the use of cross-database platform "Sequences" in the database.

  • Custom annotations allowing for filtering, mapping removal, and versioning removal.

• A JPA-based Data Provider implementation was provided for the new krad-data module (see next section).

• An OJB to JPA converter was created to help with migration of existing applications using OJB over to JPA.

A guide is provided which details how to convert from OJB to JPA within the KNS to KRAD conversion guide.

The krad-data Module

The krad-data module is a new module of KRAD which provides a set of APIs for working with data and metadata.

This module was created to help facilitate the conversion to JPA within Kuali Rice and allows for Kuali Rice modules to leverage this API for data operations without having to hard-code the use of JPA APIs throughout the code base. It also allows the rest of the frameworks within KRAD to use this API and insulate themselves from the details of the underlying persistence implementation. This ultimately gives the product more flexibility moving forward. In fact, the krad-data module is intended to provide the capability to support other data and persistence technologies in the future.

More information about the design of this module (as well as the specifics of its JPA implementation) can be found in the KRAD Data Layer Design documents, as well as the "Data Objects" documentation within the KRAD Guide.

It is important to note that efforts have been made to keep the Kuali Nervous System (KNS) with OJB support backward compatible in Rice 2.4. A legacy adapter layer was put into place as part of the integration of the krad-data module back into the rest of KRAD and this is intended to make decisions on whether to use the old OJB-based persistence layer or the new JPA-based implementation depending on various pieces of contextual information. Specifics on how this works can be found in the aforementioned KRAD Data Layer Design documents.

KNS to KRAD Gap Analysis

The Rice development team completed a comprehensive analysis of gaps between KNS and KRAD to ensure that KRAD will be functionally equivalent to KNS. For those that are interested, details on this analysis can be found in the wiki on the Technical Analysis Page for KRAD/KNS Equivalency. Information on conversion from KNS to KRAD and where to access scripts can can be found in the http://site.kuali.org/rice/2.4.0-M5/reference/html/KNS2KRAD_ConvGuide.html. Remaining features and enhancements to address gap items will be delivered in Rice 2.5.

Performance Enhancements

Extensive performance tuning and rework was undertaken in Rice 2.4 to improve many performance bottlenecks in the KRAD module. Specific improvements in this release were focused on memory consumption and include:

• DOM cleanup: Output has been optimized by removing unnecessary divs and amount of content brought back.

• Reduced memory consumption, which was the main cause for problems with load testing & scaling. The view structure stored in session had gotten really big and we've removed that completely from session storage.

KRAD UIF View Lifecycle Refactoring

To facilitate asynchronous UIF View Lifecycle processing, as well as a more flexible approach to controlling lifecycle execution for KRAD components, the original algorithms evident in Rice 2.3 ViewHelperServiceImpl have been refactored for Rice 2.4 into discrete processing tasks which operate

on lifecycle "elements", an abstract concept encompassing both Component and LayoutManager. More detail at KRAD UIF View Lifecycle Refactoring.

Upgrade Guide

Below is information on how to upgrade your database to Rice 2.4.0-M5 from the previous version. If you are upgrading from another previous version, you may want to reference Database Upgrade Paths.

Upgrading the server database

MySQL and Oracle scripts for performing these updates are available in the following locations in the Rice distribution downloads:

```
scripts/upgrades/2.4.0/final/update-mysql-server.sql
```

```
scripts/upgrades/2.4.0/final/update-oracle-server.sql
```

Client Database Upgrade

MySQL and Oracle scripts for performing these updates are available in the following locations in the Rice distribution downloads:

```
scripts/upgrades/2.4.0/final/update-mysql-client.sql
```

```
scripts/upgrades/2.4.0/final/update-oracle-client.sql
```

Conversion Guide

Rice will eventually require conversion from the Kuali Nervous System (KNS) to the Kuali Rapid Application Development (KRAD) framework. Rice implementers can also convert now to avoid larger upgrades in the future, and the information on how to do this is in http://site.kuali.org/rice/2.4.0-M5/reference/html/KNS2KRAD_ConvGuide.html. This guide includes information on how to run the automatic conversion tool, a list of items that may need to be changed manually, and a primer on how to use the new KRAD Data Framework using the Java Persistence API (JPA).

Items Addressed in Rice 2.4.0-M5

Bug Fix

- [KULRICE-9051] - AFT Failure WorkFlow Route Rules Blanket Approval submit status results in Enroute, not Final

- [KULRICE-9198] - krms_attr_defn_t.attr_defn_id is a varchar(255), but referencing columns are a mixture of varchar(40) and varchar(255)

- [KULRICE-9214] - Incident Report page Cancel Button

- [KULRICE-9252] - Update default help URL for KRAD lookup views to point docbook help

- [KULRICE-9305] - Sample Travel Application functions not working

- [KULRICE-9642] - Error message not being resolved

- [KULRICE-9740] - Modify AnnotationMetadataProviderImpl so that it can handle a situation where a module currently has no data objects

- [KULRICE-9812] - Submission for maintenance documents that go to final causing error on save

- [KULRICE-9830] - IE back problems (iframes in lightboxes)

- [KULRICE-9881] - Incorrect message displayed when using result set limit

- [KULRICE-9885] - Disabled wildcard lookups still honor wildcards

- [KULRICE-9914] - Hitting certain buttons on a multivalue Lookup Results page after items have been selected results in a stack trace

- [KULRICE-9947] - ConditionalRefresh is not working on LookupView criteria field

- [KULRICE-9980] - Expand/Collapse All options missing from KRMS and People Flow Maintenance screens

- [KULRICE-9994] - Maven execution error on db/sql

- [KULRICE-10004] - On mouse over not getting triggered

- [KULRICE-10006] - IE10, value for right aligned column doesn't display when tabbing out

- [KULRICE-10007] - ZeroClipboard / Unable to load SWF file with IE9

- [KULRICE-10012] - Lookup Criteria Styling issue when using Multiple Columns

- [KULRICE-10056] - Accidental usage of wrong constraints in validation demoes

- [KULRICE-10064] - evaluateOnKeyUp does not capture events when browser autocomplete values are selected

- [KULRICE-10083] - Non-rollback transaction generates FATAL log message

- [KULRICE-10084] - The Uif-Inquire title is ignored

- [KULRICE-10164] - Rice 2.4: Stacktrace on Lookup, Close, Cancel, Recall, and Blanket-Approve

- [KULRICE-10204] - Fix lookup sort

- [KULRICE-10214] - CountyServiceImpl.findCounties broken after JPA hookup

- [KULRICE-10217] - Determine how best to fix BusinessObjectRefreshTest.testEagerRefreshEboField for County data object

- [KULRICE-10218] - RollbackExceptionErrorReportingTest currently failing

- [KULRICE-10219] - Metadata merging from Spring configuration does not appear to be working properly

- [KULRICE-10254] - PersistableBusinessObjectValuesFinder is erronesouly trying to tack on "active=true" to all queries

- [KULRICE-10326] - JpaMetadataProviderTest.testGetMetadataForCollection test failure

- [KULRICE-10335] - Startup issues with Rice 2.4 in embedded mode

- [KULRICE-10344] - Maintenance Document Copy - missing left side with old values

- [KULRICE-10348] - The Expand All / Collapse All buttons do not exist on the TravelAccount document

- [KULRICE-10379] - Rice 2.4: Stack trace on edit KRMS Agenda

- [KULRICE-10385] - Unable to clear values on multi-select control

- [KULRICE-10392] - Field triggers refresh on another field this is used in disable check, after refresh disable check does not run again

- [KULRICE-10398] - Database deadlock while saving ProposalDevelopmentDocument with Rice 2.4 in bundled mode

- [KULRICE-10401] - Uif-Suggest not working in Google Chrome

- [KULRICE-10403] - AFT Failure: Incident Report on submitting People Flow doc Exception trying to invoke action ROUTE

- [KULRICE-10429] - NPE in Table Layout Manager when opening up Travel Account maintenance documents

- [KULRICE-10436] - Demo LIbrary, Layout Managers, CssGridLayout and many others, inline Freemarker Exception

- [KULRICE-10439] - AttributeSecurity hide attribute is not handled correctly

- [KULRICE-10444] - Database actions on Rice tables using the LegacyAppFrameworkAdapterService access the client database in embedded mode.

- [KULRICE-10452] - Primary keys should not be editable on maintenance edit action

- [KULRICE-10455] - Support for retrieving attachments which have been linked to properties on the business object itself

- [KULRICE-10466] - Inquiry Links in Travel Account are not being rendered

- [KULRICE-10497] - Exception on multi-value lookup

- [KULRICE-10507] - ENABLE_FIELD_LEVEL_HELP_IND in KualiForm

- [KULRICE-10542] - KRAD document throws null pointer on save

- [KULRICE-10562] - After clicking download attachment link, no further actions can be taken

- [KULRICE-10564] - Tooltips not working within disclosure section

- [KULRICE-10586] - Fix configuration in Library Data Field Label Top to not include colon

- [KULRICE-10597] - Library - Stacked Layout Manager: Delete button rendered as link

- [KULRICE-10602] - Collection Totaling table page information does not display if full table information has been displayed.

- [KULRICE-10618] - Elements -> DataTable example breaks with Uncaught TypeError when the search field is used

- [KULRICE-10652] - PeopleFlow members of type Group should not be able to set the action request policy

- [KULRICE-10655] - Maintenance Business Rules missing processAddCollectionLineBusinessRules implementation

- [KULRICE-10673] - TranslationUtility.translateNaturalLanguageForObject throws NPE

- [KULRICE-10710] - Implement duplicateIdentificationFields functionality for KRAD

- [KULRICE-10767] - KRAD Demo Library Regex Constraints issues

- [KULRICE-10769] - KRAD Demo Library Breadcrumbs preView and PrePage Previous page Incident Report

- [KULRICE-10770] - KRAD Demo Library Breadcrumbs Path-based left nav to Page1 presents UnexpectedTypeException

- [KULRICE-10779] - KRAD Demo Library Rich Messages CSS demo not showing changed presentation

- [KULRICE-10780] - Logging line crashing eclipse

- [KULRICE-10809] - File uploads on collections do not behave correctly

- [KULRICE-10829] - Fix Open/Close Row Details button examples and openRowDetails example

- [KULRICE-10842] - MultiValue Lookup is broken in the KRAD Library in 2.4

- [KULRICE-10849] - NPE when performing UserControl lookup

- [KULRICE-10882] - Read only property on collection items gets overridden

- [KULRICE-10892] - Multi Value Return lookup not working when using server paging

- [KULRICE-10893] - PeopleFlow add Group/Role oddity

- [KULRICE-10895] - Criteria Fields on Term Lookup aren't rendering properly

- [KULRICE-10910] - Properties specified on criteria field not getting carried over to range field group

- [KULRICE-10916] - Sorting is broken for tables using server side paging

- [KULRICE-10921] - OptimisticLockException being thrown on copied TravelAccount approval action

- [KULRICE-10933] - Input field validation tooltips displays twice in lightbox

- [KULRICE-10949] - The performCustomFinalize hook is no longer being called

- [KULRICE-10952] - Logic to determine if a given date is within an InactivatableFromTo range is flawed in InactivatableFromToUtils

- [KULRICE-10976] - Demo Maintenance Attachment Error

- [KULRICE-11021] - stack trace on pessimistic lock search

- [KULRICE-11032] - NullPointerException when trying to open KIM group inquiry

- [KULRICE-11033] - Action Items are not being copied into the Outbox

- [KULRICE-11034] - Context Document Save-Then-Route failing with optimistic lock exception

- [KULRICE-11039] - Fix LoadTimeWeavableTestRunner so that it is doing proper byte code instrumentation

- [KULRICE-11044] - KRAD PoC - Problems with refreshId when used in a lightbox.

- [KULRICE-11045] - Delegations throws exception when selecting role in Person Maintenance

- [KULRICE-11052] - Update tables KRIM_ROLE_T and TRVL_TRAVELER_DTL_T so that impex doesn't change them every time

- [KULRICE-11055] - DatePatternConstraint and BasicDatePatternConstraint in AttributeDefinition cause validation errors on valid dates

- [KULRICE-11056] - Table collection disappears in lightbox after add of collection line

- [KULRICE-11085] - ViewLifecycle.getDefaultValueForField throws UnsupportedOperationException on context.putAll(dataField.getContext());

- [KULRICE-11102] - KRAD JS Lookup Error

- [KULRICE-11105] - KRAD JS Error in Rice 2.4.0-M3

- [KULRICE-11111] - Make Uif-CurrencyTextControl default to a new CurrencyPatternConstraint

- [KULRICE-11148] - JPA mapped transactional document fields not linking

- [KULRICE-11157] - Hidden script parameter get submitted on post

- [KULRICE-11166] - Incorrect handling of null compares in RulesManagmentServiceImpl

- [KULRICE-11167] - KRAD Conversion Script: Remove Lookup and Inquiry View Name

- [KULRICE-11168] - KRAD Conversion Script: Stacked collections have invalide layoutManager.numberOfColumns property

- [KULRICE-11169] - KRAD Conversion Script: Initialize lowerGroup property for menubar conversion

- [KULRICE-11172] - KRAD Conversion Script: <value> items of defaultSortAttributeNames property are not copied over

- [KULRICE-11173] - KRAD Conversion Script: Not all properties of SelectControlDefinition are being converted

- [KULRICE-11179] - Radio Buttons in Lookup Criteria not rendered nicely anymore

- [KULRICE-11183] - Server side data validation errors don't bubble up on lookup criteria fields

- [KULRICE-11184] - Permission inquiry is broken

- [[KULRICE-11186](#)] - Add support for type coercion from String to appropriate data type in JPA

- [[KULRICE-11187](#)] - Saving a group yields an incident report - field AutoPopulatingList returns java.lang.Class vs GroupDocumentMember

- [[KULRICE-11194](#)] - Travel Demo App data inconsistancies

- [[KULRICE-11214](#)] - MultiValue Lookup - select only on this page and then deselect only on this page the return select button stays clickable.

- [[KULRICE-11215](#)] - DemoCollectionFeaturesMultiValueLookupAft test failures

- [[KULRICE-11217](#)] - JS error when delete button is used in non table or stacked layout

- [[KULRICE-11219](#)] - KRAD Conversion Script: Inquiry Collection Definitions are not properly converted

- [[KULRICE-11222](#)] - Conversion Script: Maintenance

- [[KULRICE-11226](#)] - Delete Agenda does not cascade and leaves orphaned data and integrity constraints

- [[KULRICE-11282](#)] - openHelpWindow js function not working in chrome

- [[KULRICE-11284](#)] - Partial Unmask Field permission does not work in KRAD

- [[KULRICE-11292](#)] - Validation messages on tree node components not displayed correctly

- [[KULRICE-11293](#)] - MySQL scripts for 2.1.3 - 2.2.1 and 2.1 - 2.2 upgrade do not work

- [[KULRICE-11295](#)] - Unable to change rule action from Validation to Route to Peopleflow / Notify PeopleFlow

- [[KULRICE-11298](#)] - Investigate error with component lifecycle

- [[KULRICE-11302](#)] - Need JPA implementations for some persistence related methods that the KNS used to use.

- [[KULRICE-11304](#)] - Cannot use Business Object Service on objects that are scanned by JPA

- [[KULRICE-11305](#)] - Need a way to disable optimistic locking

- [[KULRICE-11330](#)] - KRAD is swallowing exceptions

- [[KULRICE-11332](#)] - Conversion Script: Maintenance

- [[KULRICE-11351](#)] - KRAD should not differentiate between primitive types and their wrappers during DD validation

- [[KULRICE-11376](#)] - HiddenFields are not submitted when part of progressive rendered section.

- [[KULRICE-11380](#)] - Correct JavaDoc of UifControllerBase.getBooleanDialogResponse and getStringDialogResponse

- [[KULRICE-11396](#)] - Input field widgetInputOnly with quickfinder example doesn't work

- [[KULRICE-11399](#)] - Progressive render and refresh doesn't work due to missing copy

- [[KULRICE-11403](#)] - Error adding Sub Account to KRAD Demo Travel Account

- [KULRICE-11404] - Maintenance delete allows submission when delete is disabled.

- [KULRICE-11405] - After Submit documents are still editable, should be read only

- [KULRICE-11406] - Cannot create peopleFlow docs on rice env2 or env8

- [KULRICE-11409] - KRMS - Cannot delete or update additional False rule from rule editor

- [KULRICE-11413] - Ajax field queries not working

- [KULRICE-11414] - Extension framework does not work with objects using sequences for primary key

- [KULRICE-11415] - KRMS: Rules: cannot save more than 2 rules

- [KULRICE-11417] - Fix the mixing of OJB and JPA in KEW Rule Maintenance

- [KULRICE-11424] - KRAD - Appears to be populating "" instead of null for strings

- [KULRICE-11449] - in TermSpecification maintenance doc, items added to the Context collection should not be editable

- [KULRICE-11463] - On submit KRAD Docs don't return to the maint portal tab

- [KULRICE-11549] - Conversion Script- When tranforming MaintainableFieldDefinition, the name attribute is the only one being transformed.

- [KULRICE-11550] - Conversion Script - parentBeans are created in the output, missing the child beans that reference them

- [KULRICE-11551] - text areas have a grey box around them when they are read only

- [KULRICE-11592] - Remove version/optimistic locking from KSB service registry

- [KULRICE-11597] - Generated lookup/inquiry ids contain invalid characters

- [KULRICE-11609] - Conversion Script - M93 - Convert duplicateIdentificationFields to duplicateLinePropertyNames

- [KULRICE-11615] - Example code for server-side and client-side growls is the same

- [KULRICE-11627] - Fix broken "core" integration tests

- [KULRICE-11640] - Analysis for maintenance global documents on KRAD

- [KULRICE-11641] - Content wrapper classes not getting applied to view header

- [KULRICE-11644] - Maintenance Pages not routing out of initiated

- [KULRICE-11684] - IdentityArchiveService failing with jpa error on shutdown

- [KULRICE-11708] - IT Failures due to 'trv_acct_fo' table being removed

- [KULRICE-11710] - Cancel on new Context Maintenance causes error 500

- [KULRICE-11727] - Remove FancyLookupSampleView from Demo

- [KULRICE-11740] - KRAD screen that handles attempts to open unsaved documents is broken in Rice 2.3.x

- [[KULRICE-11751](#)] - Field groups and date picker being doubled in labs proposal

- [[KULRICE-11768](#)] - error when new peopleflow documents are submitted

- [[KULRICE-11779](#)] - Fix DataDictionaryComponentPublisherServiceImpl to work with data objects

- [[KULRICE-11808](#)] - Add line and delete line broken due to structure changes

- [[KULRICE-11812](#)] - KRAD maintenance docs break if there are lazy relationships in JPA due to copying by serialization

- [[KULRICE-11817](#)] - IT Failure BootstrapTest.bootstrapTest due to KULRICE-11151

- [[KULRICE-11827](#)] - allowsNewOrCopy should not affect the edit action

- [[KULRICE-11833](#)] - Permission inquiry and maintenance are broken

- [[KULRICE-11842](#)] - KualiLookupableTest.testGetRows ComparisonFailure: expected:<Account Manager[Id]> but was:<Account Manager[]>

- [[KULRICE-11864](#)] - Column calculation fixes - style, duplicate total elements, readOnly totaling

- [[KULRICE-11865](#)] - Sticky footer adjustments causing too much padding on page change

- [[KULRICE-11868](#)] - Expression error in testColumnCalculations during apply model phase

- [[KULRICE-11875](#)] - ViewLifecycleTest failures

- [[KULRICE-11876](#)] - sequences not used by default in creating KRMS entities

- [[KULRICE-11881](#)] - AFT Failure DemoWidgetsBreadcrumbsAft IllegalStateException:¬†Another¬†lifecycle¬†is¬†already¬†active¬†on¬†this¬†thread

- [[KULRICE-11883](#)] - wrapperTag null for stacked collections

- [[KULRICE-11887](#)] - Workflow Routing Rules Doc Type Lookup fails to return result

- [[KULRICE-11888](#)] - Component ordering doesn't work

- [[KULRICE-11889](#)] - Delimiters should not appear at the end of a checkbox group

- [[KULRICE-11890](#)] - Unreported errors during business rule evaluation

- [[KULRICE-11891](#)] - Default Values not being applied on Input and Data Fields

- [[KULRICE-11892](#)] - Spinner Control for currency not starting on the correct start value

- [[KULRICE-11893](#)] - IT Failure ValidationIntegrationTest Attempted to fetch a relationship using a foreign key attribute when one does not exist: attributeDefinition

- [[KULRICE-11896](#)] - Parent Location Breadcrumbs broken

- [[KULRICE-11897](#)] - Library - Client Responsiveness - Disable - onKeyUp/onChange broken

- [[KULRICE-11898](#)] - Copying or editing certain document types fails with MetadataException: Can't find member 'documentTypeId' in class class DocumentTypePolicy

- [[KULRICE-11899](#)] - Ajax Retrieval not rendering

- [[KULRICE-11900](#)] - AFT Failure View Help Method Suggest Widget has empty results

- [[KULRICE-11905](#)] - Unable to copy document types - documents go into exception; doc title incorrect when copying multiple types of docs

- [[KULRICE-11906](#)] - Create Role transaction - adding Responsibility throws org.eclipse.persistence.exceptions.ValidationException

- [[KULRICE-11907](#)] - Copy Permission throws org.apache.ojb.broker.metadata.ClassNotPersistenceCapableException

- [[KULRICE-11908](#)] - Create PostalCode submit throws java.lang.NullPointerException at org.kuali.rice.location.service.impl.LocationModuleService.getExternalizableBusinessObject

- [[KULRICE-11909](#)] - Collection add not working (collection disappears on add)

- [[KULRICE-11910](#)] - FixedPointPattern constraint in the KRAD Library has bug or needs updated description

- [[KULRICE-11912](#)] - Inquiry returns "No records found for given parameters" for existing objects

- [[KULRICE-11913](#)] - Issue with regex email address validation

- [[KULRICE-11915](#)] - Demo/Labs Lookup Conditional Criteria page doesn't work

- [[KULRICE-11917](#)] - Commas are added to search criteria of the Lookup Operators page

- [[KULRICE-11921](#)] - Kitchen Sink collections page not being replaced

- [[KULRICE-11923](#)] - Stack trace on Recall when document is PROCESSED or FINAL

- [[KULRICE-11924](#)] - InitiatedDocumentView cancel button results in stack trace, http error 500

- [[KULRICE-11925](#)] - Term lookup fields are missing labels

- [[KULRICE-11926](#)] - Cannot select items in the agenda tree

- [[KULRICE-11927](#)] - Cannot add rule in KRMS agenda / rule editor page

- [[KULRICE-11928](#)] - Term Maint Doc - Categories heading displays before Term Specification is added

- [[KULRICE-11929](#)] - Radio and checkbox controls do not get their rich messages evaluated

- [[KULRICE-11931](#)] - Routing Rule Maintenance - JPA Duplicate Key Exception when saving edits

- [[KULRICE-11933](#)] - People Flow Maintenance Screen. Choosing from Type drop down blanks screen.

- [[KULRICE-11934](#)] - eDocLite document to straight to FINAL. ENROUTE expected

- [[KULRICE-11944](#)] - Suggest does not work

- [[KULRICE-11945](#)] - Actions column header disappears with server side paging

- [[KULRICE-11946](#)] - Multiple execution of script within table contents causes duplicate init data tables warning

- [[KULRICE-11947](#)] - Exception on lookup when running async mode

- [[KULRICE-11950](#)] - Prevent resizing jump on lightbox

- [KULRICE-11951] - DatePatternConstraint doesn't handle missing config param properly

- [KULRICE-11960] - Exception on Kitchen sink - Progressive Disclosure - Refresh Page button

- [KULRICE-11963] - Save action not enabled for a line when change is made

- [KULRICE-11965] - Reset data on refresh is not clearing data

- [KULRICE-11969] - Cannot perform detailed document searches that specify a doc type lacking route nodes

- [KULRICE-11970] - Ajax details still not working in some scenarios

- [KULRICE-11989] - Logic to retrieve ad hoc recipient person incorrect causing issues adding people

- [KULRICE-11990] - Allow for max lengths larger than 100 for lookup input fields

- [KULRICE-11994] - Load-Time Weaving should be optional for Rice client apps

- [KULRICE-11996] - Stacktrace: KRAD Demo - Travel Company Lookup, Travel Destination Lookup, ‚Ä®Account Type Lookup‚Ä®, ‚Ä®Travel Mileage Lookup, Agenda Lookup, Uif Components, all Reference section links

- [KULRICE-12002] - Lookup with lightbox disabled opens new window upon returning a value

- [KULRICE-12005] - Empty FDOC_NBR when submitting a Person document with a delegation

- [KULRICE-12006] - Empty FDOC_NBR when submitting a Role document with a role member

- [KULRICE-12011] - KRAD Library - Elements - Label - Required Message No required indicator is shown

- [KULRICE-12012] - Parameter Lookup - Selecting a component from search results does not populate ‚ÄúComponent‚Äù search criteria field

- [KULRICE-12013] - KRAD Library- Widgets - BreadCrumbs-Sibling BreadCrumbs broken

- [KULRICE-12014] - KRAD Library- Widgets - Suggest not working properly

- [KULRICE-12020] - KRAD Library ReadOnly view shows unchecked checkbox as true

- [KULRICE-12021] - Kim Attribute problem when multiple attributes have the same name

- [KULRICE-12022] - KRAD Library sample has a weird rendered dropdown

- [KULRICE-12026] - KRAD Library sequence column value in collection changes on delete

- [KULRICE-12028] - Lightbox with embedded page in it renders less than perfectly

- [KULRICE-12029] - Issue with delete functionality on Table Layout library demo

- [KULRICE-12030] - The KRAD Sample App library "Save Row", "Multirow" Table Layout examples do not add correctly

- [KULRICE-12032] - KualiPercent (KualiDecimal?) can't be used as a lookup criteria

- [KULRICE-12034] - Delete creating blank rows in Component Library / Collections / Sequence Column

- [KULRICE-12036] - KRMS - Adding rule returns blank screen

- [KULRICE-12043] - Sorting for Light Table with Basic Inputs does not consider updated values of fields

- [KULRICE-12076] - AFT Failure DemoClientResponsivenessProgressiveDisclosureAft

- [KULRICE-12102] - Ids not getting assigned in pre-process phase for pages other than the current page

- [KULRICE-12121] - Creating a new Role Document and changing the member type to Role causes an exception

- [KULRICE-12124] - Submitting a Person document causes a stacktrace even though the document goes final

- [KULRICE-12125] - Secure values need addressed for KRAD multi-value lookup

- [KULRICE-12128] - Error creating new Permission

- [KULRICE-12129] - Error creating a new Responsibility

- [KULRICE-12141] - Library Dropdown menu examples have items that cause an Incident Report when selected

- [KULRICE-12142] - Editable Header does not appear to be editable

- [KULRICE-12144] - Navigation - Application Header example has menu options which result in Incident Report

- [KULRICE-12145] - Sticky Header javascript errors when scrolling

- [KULRICE-12146] - Sticky Footers example has problem with FTL

- [KULRICE-12150] - Edit Person: When adding affiliation for a person, the Employment Information section is not saved

- [KULRICE-12152] - UIF Layout Test results in an incident report

- [KULRICE-12155] - eDoc Lite - eDocLite - ‚ÄúMy research is funded‚Ä¶‚Äù checkboxes not retaining data

- [KULRICE-12156] - AFT Failure: DemoTravelAccountLookUpAutoSearchAft

- [KULRICE-12166] - Two instances of the data dictionary service (and data dictionary) are loaded in Rice context

- [KULRICE-12176] - Routing is broken for maintenance docs for BOs mapped in both JPA and OJB

- [KULRICE-12191] - Delimiters should not appear at the end of a radio group

- [KULRICE-12192] - Validation Fixed Point Constraint - not working or incorrect description

- [KULRICE-12193] - Call to refresh in component library causes configuration and html output sections to no longer be correct

- [KULRICE-12195] - Additional arguments ignored on suggest

- [KULRICE-12196] - Library Collection Light Table - incorrect description, or not showing rows

- [KULRICE-12200] - Agenda Rule - When choosing a rule type the Type field disappears

- [KULRICE-12203] - Elements - Action - Validation Message needs to describe validation is ‚Äúrequired field‚Äù

- [KULRICE-12206] - Agenda Copy Fails

- [KULRICE-12207] - KRMS Context - copy throws an exception

- [KULRICE-12209] - Stacktrace on Direct Inquiry (Kitchen Sink: Lookups, etc)

- [KULRICE-12253] - Users receive RiceIllegalArgumentException when namespaceCode is blank in Role document

- [KULRICE-12254] - IT Failure: org.kuali.rice.kew.actions.RecallActionTest.testRecallWithCustomDocumentTypeAuthorizer

- [KULRICE-12259] - CXF mishandles empty collections in document search customization

- [KULRICE-12260] - Infinite loop in permission lookupable helper service

- [KULRICE-12261] - KSB issue when service descriptor is missing

- [KULRICE-12268] - KRAD Demo Raw Freemarker Exception with bad url expect html 404 error

- [KULRICE-12270] - Disable failover on topic messages in KSB

- [KULRICE-12272] - Inifnite Loop in KNS EditablePropertiesHistoryHolder

- [KULRICE-12273] - Document Type lookup caches results incorrectly

- [KULRICE-12274] - KEW allows duplicate searchable attributes to be added to a document

- [KULRICE-12275] - KSB functionality which deletes services by application ID does not remove inactive service endpoints

- [KULRICE-12276] - KSB functionality to delete localhost entries does not handle localhost IP address

- [KULRICE-12299] - Unable to create new role with a permission OR create/edit a role with a responsibility

- [KULRICE-12300] - KRMS - Add Parent to blank proposition causes exception

- [KULRICE-12311] - Term lookup fields are missing labels (again)

- [KULRICE-12328] - When accessing krew_doc_hdr_cntnt_t content, don't decrypt if content seems like uncrypted xml

- [KULRICE-12332] - Select/Deselect all line selections not working

- [KULRICE-12333] - contex:annotation-config in CommonSpringBeans.xml forces autowiring over explicit property assignment.

- [KULRICE-12334] - missing labels on JDK6

- [KULRICE-12336] - regex for server evaluations of SPEL should only match on word boundary

- [KULRICE-12338] - Very large HistoryFlows cause OOM error.

- [KULRICE-12339] - UserTransactionFactoryBean and TransactionManagerFactoryBean trigger lazy initialization too early when spring logging is turned to INFO

- [[KULRICE-12371](#)] - KRAD TextArea expand icon results in js error growl message.

- [[KULRICE-12372](#)] - Permission Links do not work from Document Configuration screen

- [[KULRICE-12382](#)] - Peopleflow Summery Type KR-SAP Sample Type utilizes deleted Travel Fiscal Officer Id

- [[KULRICE-12384](#)] - CharsetPatternConstraint does not always validate strings of characters correctly

- [[KULRICE-12386](#)] - KRAD Lookup with exact date criteria doesn't match records

- [[KULRICE-12389](#)] - Notes & Attachment section looks different than Ad-Hoc and Route Log sections

- [[KULRICE-12392](#)] - KRMS Agenda Inquiry View: problems with ‚ÄúView Rule‚Äù button.

- [[KULRICE-12394](#)] - KRAD Maintenance Document Copy broken

- [[KULRICE-12396](#)] - Remove required from Travel Account Type's active indicator

- [[KULRICE-12403](#)] - Edit and Add permission and Responsibility links do not appear on Document Configuration Screen

- [[KULRICE-12404](#)] - Responsibility Inquiry throwing error from Responsibility lookup.

- [[KULRICE-12423](#)] - Move ValidCharsConstraintAftBase and dependencies to KRAD Sample App

- [[KULRICE-12424](#)] - Move DirtyFieldsAftBase and dependencies to KRAD Sample App

- [[KULRICE-12425](#)] - Move DeleteSubCollectionLineAftBase and dependencies to KRAD Sample App

- [[KULRICE-12426](#)] - Move UifComponentValidationRegexPatternAftBase and dependencies to KRAD Sample App

- [[KULRICE-12427](#)] - Move ParentLineAftBase and dependencies to KRAD Sample App

- [[KULRICE-12429](#)] - Editing PeopleFlow Document Stuck in EnRoute Status

- [[KULRICE-12433](#)] - KRMS Natural Language not properly translated when using certain integer values

- [[KULRICE-12435](#)] - Some quickfinder lookups are broken

- [[KULRICE-12437](#)] - RiceRuntimeException when routing Agenda with newly added Rule

- [[KULRICE-12441](#)] - Library - Controls - Disable on Key Event examples are ambiguous

- [[KULRICE-12442](#)] - Library - Containers - Groups - Section Horizontal not displaying correctly

- [[KULRICE-12446](#)] - Exception on role document

- [[KULRICE-12447](#)] - Library Box Layout Manager - the highlight items & outline groups buttons don‚Äôt work

- [[KULRICE-12450](#)] - MethodAccessException

- [[KULRICE-12457](#)] - KRMS error and cache flush messages not appearing right

- [[KULRICE-12459](#)] - JS error on loading any page in Safari 7.0.3 (OSX)

- [[KULRICE-12468](#)] - Clicking on agenda context lookup populates value right away

- [KULRICE-12469] - Cannot submit an edited Agenda

- [KULRICE-12519] - IE9 doesn't render pages propery

- [KULRICE-12522] - People Flow: Type and Type Attributes (Travel Account Number & Principal ID) not Persisted

- [KULRICE-12523] - People Flow: Group and Role Member not displayed on confirmation & DocSearch views

Epic

- [KULRICE-8800] - Identify gaps between KNS and KRAD lookup features

- [KULRICE-9439] - KNS/KRAD Equivalence for Inquiry

- [KULRICE-9440] - KNS/KRAD Equivalence for Maintenance

- [KULRICE-9441] - KNS/KRAD Equivalence for Data Dictionary

- [KULRICE-9483] - KNS/KRAD Equivalence for Components

- [KULRICE-9502] - Migrate KRAD to use krad-data APIs

- [KULRICE-9503] - JPA Support for krad-data

- [KULRICE-9507] - Convert internal Rice modules to use JPA and the new krad-data framework

- [KULRICE-9508] - Implement the new krad-data module according to the technical design

Improvement

- [KULRICE-8927] - Modify DataObjectType so that instances are always created via a static method and are cached as well on the backend

- [KULRICE-9087] - Ensure that our out-of-the-box persistence providers are throwing Spring DataAccessException where appropriate

- [KULRICE-9110] - Remove old JPA "shim" code (i.e. BusinessObjectDaoProxy) because it won't be needed any longer

- [KULRICE-9113] - Eliminate compile time and runtime dependencies for OJB from krad code

- [KULRICE-9115] - Remove old JPA-related classes if they are not going to be used any longer

- [KULRICE-9116] - Deprecate BusinessObject classes

- [KULRICE-9336] - Replace core.framework.persistence.jpa.criteria package with native JPA Criteria and Query objects

- [KULRICE-9337] - Determine whether we should support, replace, or remove CompositePrimaryKeyBase

- [KULRICE-9338] - Determine whether we need OrmUtils merge/reattach functionality

- [KULRICE-9396] - Upgrade fancybox jquery plugin

- [KULRICE-9405] - Remove JPA annotations from PersistableBusinessObjectBase since it is being deprecated

- [KULRICE-9418] - Create an "Accessor" api which is available off of DataObjectService for working with a data object instance and metadata combined

- [KULRICE-9422] - Look into perform initialize add initial component state for elimination

- [KULRICE-9558] - Bring JPA design to KTI and TRC for discussion and feedback

- [KULRICE-9559] - Remove OJB implementations of provider classes

- [KULRICE-9569] - Remove unecessary depencency on rice-client-contrib from krms-it module

- [KULRICE-9592] - Design for select/deselect on multi-value lookup

- [KULRICE-9600] - Cut marker spans when not used

- [KULRICE-9650] - Remove OJB dependencies from DatabasePlatform

- [KULRICE-9798] - Enable persistence exception translation to happen automatically as part of the krad-data framework and JPA

- [KULRICE-9868] - Switch from using EclipseLink-specific converters to JPA 2.1 converters

- [KULRICE-9889] - Move deprecated data code and services to the rice-kns module

- [KULRICE-9896] - Default EclipseLink setup should disable shared cache

- [KULRICE-9897] - Remove validation api from DataObjectService

- [KULRICE-9920] - Remove NoResultExceptionInterceptor

- [KULRICE-9925] - Refactor EclipseLinkSequenceCustomizer so that works more like regular sequence configuration in JPA

- [KULRICE-9926] - Modify KradEntityManagerFactoryBean so that it uses the existing packagesToScan when scanning for JPA 2.1 Converters

- [KULRICE-9927] - Improvie the javadoc on CompoundKey so that it better describes what that class is for

- [KULRICE-9928] - Add more detail to the javadoc for DataObjectService

- [KULRICE-9929] - Determine if we should really have the version of findMatching on DataObjectService which takes a LookupCustomizer

- [KULRICE-9930] - Do we really need all of those methods on DataObjectUtils?

- [KULRICE-9931] - Rename KRADDataServiceLocator to KradDataServiceLocator

- [KULRICE-9970] - Add Hook to DD for processing beans prior to validation

- [KULRICE-9993] - Remove initial building of table details when ajax option is set

- [KULRICE-9997] - Prevent initial Spring loading of all pages

- [KULRICE-9999] - Refactor package structure in krad-data module such that jpa is not under "provider" package

- [KULRICE-10022] - Make it so that it's possible to configure and override custom incrementers in MaxValueIncrementerFactory

- [KULRICE-10023] - Deprecate SequenceAccessorService in favor of MaxValueIncrementerFactory

- [KULRICE-10105] - Remove initializing of ComponentSecurity objects for each component

- [KULRICE-10156] - Move PersistenceStructureService, PersistenceService, and friends to kns module

- [KULRICE-10187] - Include information on bad code when calling evalHiddenScript in krad.utility.js

- [KULRICE-10208] - Fix up missing travel sample app data resulting from JPA conversion of sample app

- [KULRICE-10210] - Rename GloballyUniqueAndVersionedBase to DataObjectBase and add @Transient extension object

- [KULRICE-10366] - Enhance menu component to handle multiple levels with collapse/expand capability

- [KULRICE-10374] - Allow for Bootstrap glyphs and custom glyphs to be used in action fields

- [KULRICE-10375] - Create UIF icon set

- [KULRICE-10395] - Allow for disabled expressions to be partially evaluated server side

- [KULRICE-10399] - Page loading indicator is big

- [KULRICE-10427] - Allow for less files to be used directly in dev mode

- [KULRICE-10539] - retrieveViaAjax delay lifecycle for components implementation

- [KULRICE-10547] - Component lifecycle processing task and execution context

- [KULRICE-10548] - Freemarker rendering phase extension

- [KULRICE-10549] - Thread pool configuration and queueing algorithm

- [KULRICE-10550] - Multi-threading Post-analysis, cleanup and integration

- [KULRICE-10865] - Switch it so that the JpaPersistenceProvider doesn't do linking by default, linking should be "opt-in", get rid of PersistenceOption.REFRESH

- [KULRICE-10866] - Modify the KradEclipseLinkCustomizer so that the @PortableSequenceGenerator annotation can be placed on a superclass field

- [KULRICE-10885] - Allow for form post mapping to be specified per page

- [KULRICE-10908] - Add additionalParameters to quickfinder

- [KULRICE-10912] - Use ConcurrentHashMap in User Session

- [KULRICE-11037] - GlobalResourceLoaderServiceFactoryBean - Need change to support @Autowired annotation

- [KULRICE-11063] - Add a preBind hook on ViewModel to allow processing before Spring binding

- [KULRICE-11066] - Convert enQuickLinksDAO, enResponsibilityIdDAO, and enStatsDAO to JPA and remove _KewLocalSpringBeans.xml

- [KULRICE-11164] - KRAD Labs MV links have no collection to return to resulting in Lookup collection name is required

- [KULRICE-11209] - Address Inconsistencies Between KULRICE-11001 MySQL and Oracle Scripts

- [KULRICE-11263] - Options for show lightbox component

- [KULRICE-11296] - Rice archetype should use java 7 by default

- [KULRICE-11300] - Allow for meta tags to be added to views

- [KULRICE-11373] - Module configurer changes required to have both the module spring MVC and the module services in the same context

- [KULRICE-11412] - Further DOM Reduction

- [KULRICE-11421] - Usability Issue with Travel Account Maintentance Edit: Subsidized Percent

- [KULRICE-11583] - Key Value should allow expressions in their key and value content

- [KULRICE-11585] - Move validation and action data defaults to hidden scripts

- [KULRICE-11616] - Replace usage of SequenceAccessorService with MaxValueIncrementerFactory in KRMS

- [KULRICE-11617] - Replace usage of SequenceAccessorService with MaxValueIncrementerFactory in KIM

- [KULRICE-11625] - Convert KRMS groovy business objects back to Java

- [KULRICE-11633] - Convert core-service business objects from Groovy back to Java

- [KULRICE-11636] - Rename QueryCustomizer to Filter and move from eclipselink package to jpa package

- [KULRICE-11637] - Move PortableSequenceGenerator to org.kuali.rice.krad.data.jpa package

- [KULRICE-11639] - Convert "location" module groovy business objects back to Java

- [KULRICE-11662] - DocumentService.saveDocument() JPA versus OJB behavior change

- [KULRICE-11663] - Create a FactoryBean for MaxValueIncrementerFactory

- [KULRICE-11670] - Document PersistenceOption class, enum?

- [KULRICE-11671] - Seems strange that code using JpaPersistenceProvider needs to inject a reference to the DataObjectService

- [KULRICE-11672] - Remove patched JOTM files from krad-data module and created a patched version of JOTM

- [KULRICE-11686] - Generate p element instead of span for message component

- [KULRICE-11688] - Modify styling of required indicator to match prototypes

- [KULRICE-11723] - Excessive WARN level logging when rendering KRAD pages

- [KULRICE-11726] - Remove the UiDocumentServiceDAOJdbcImpl

- [KULRICE-11752] - Add more ingest resources files to include previous and split scripts

- [KULRICE-11806] - Add methods for findUnique to DataObjectService

- [KULRICE-11815] - Enable static bytecode weaving for Rice JPA entities

- [KULRICE-11885] - Remove BasicModuleConfiguration from krad-data as it is no longer needed

- [KULRICE-11957] - Move ProviderRegistrationFactory to krad.data.provider package and change name to ProviderRegistrar

- [KULRICE-11958] - Remove ConfigConstants from krad-data module and replace with a better approach

- [KULRICE-11959] - Move ReferenceLinker from provider.util to util package

- [KULRICE-11964] - Lookup criteria generator requests view instance to determine wildcard treatment

- [KULRICE-12045] - Add docbook on guest user access to the KRAD guide

- [KULRICE-12075] - Rice needs to support PessimisticLock lookups by date not date AND time

- [KULRICE-12143] - No image present in ImageCaption Header example

- [KULRICE-12181] - FilterGenerator api changes

- [KULRICE-12481] - Fix/remove all references to OJB in the KRAD Guide

- [KULRICE-12483] - Update KRAD Guide to reference quickstart archetype

- [KULRICE-12484] - Remove the entityManager property from ModuleConfiguration

New Feature

- [KULRICE-8923] - Implement OJB version of PersistenceProvider

- [KULRICE-8924] - Implement OJB version of MetadataProvider

- [KULRICE-9066] - Implement JPA version of MetadataProvider

- [KULRICE-9103] - Implement persistence compatibility layer for legacy KNS/KRAD apps vs. new KRAD apps using the shiny new data layer

- [KULRICE-9104] - Implement LegacyUtils class for KRAD

- [KULRICE-9108] - Implement support for loading of both OJB and JPA versions of KRAD client-side mappings

- [KULRICE-9193] - Implement cross-platform custom JPA id generation

- [KULRICE-9220] - Implement facility for preventing legacy persistence framework use at runtime

- [KULRICE-9388] - Convert LookupService lookups to DataObjectService/PersistenceProvider findMatching QueryByCriteria API

- [KULRICE-9410] - Reroute any references to DataObjectMetadataService in KRAD code through LegacyDataAdapter

- [[KULRICE-9413](#)] - Implement portable data object proxy detection and unwrapping

- [[KULRICE-9488](#)] - Pull KeyValuesService API into LegacyDataAdapter

- [[KULRICE-10389](#)] - New component for Bootstrap navigation bar

- [[KULRICE-10390](#)] - New component for Application Header

- [[KULRICE-11178](#)] - Need support for query customizers with JPA

- [[KULRICE-11350](#)] - Need support for anonymous access with JPA

- [[KULRICE-11468](#)] - Add ability to remove mappings from superclass with JPA

- [[KULRICE-11498](#)] - Configure JPA entity manager factory and krad-data integration for KEN

- [[KULRICE-11499](#)] - Configure JPA entity manager factory and krad-data integration for KCB

- [[KULRICE-11618](#)] - Configure JPA entity manager factory and krad-data integration for KRMS

- [[KULRICE-12055](#)] - Create logout action for KRAD sampleapp

Task

- [[KULRICE-5159](#)] - Spring binding security

- [[KULRICE-5287](#)] - Lookup - Need export on result table

- [[KULRICE-5388](#)] - Lookup - Add support for specifying a menubar

- [[KULRICE-7666](#)] - Implement default existence checks for Maintenance document and support general data objects

- [[KULRICE-8665](#)] - KRAD Chapter: Common format for Keyword

- [[KULRICE-8910](#)] - Allow for using Bootstrap to bring in the new Rice Look & Feel

- [[KULRICE-9086](#)] - Add support for lookup page size (Maximum number of rows that will be displayed on a look-up results screen)

- [[KULRICE-9089](#)] - Design and analysis for how new metadata and Data Dictionary will be loaded and split from current data dictionary

- [[KULRICE-9099](#)] - Determine how we will handle default existence checks in new krad-data module

- [[KULRICE-9100](#)] - Document the design for linking and refreshing within krad-data module

- [[KULRICE-9102](#)] - Determine how best to handle linking to DocumentHeader using JPA as was done with OJB

- [[KULRICE-9112](#)] - Determine how to handle SequenceAccessor and underlying code with JPA implementation

- [[KULRICE-9119](#)] - Review design for extension framework in new data layer

- [[KULRICE-9139](#)] - Deprecate BusinessObjectService, PersistenceService, and related services related to persistence

- [KULRICE-9140] - Deprecate PersistenceStructureService and related old metadata services

- [KULRICE-9226] - AttributeDefinition forceUpperCase Doesn't Work

- [KULRICE-9242] - Modify jpa metadata provider that gets primary key fields to use a combination of getDeclaredFields and JPA metamodel

- [KULRICE-9347] - Implement Extension framework in new KRAD data module

- [KULRICE-9361] - KNS to KRAD Conversion Guide

- [KULRICE-9363] - Reimplement/replace OJB data type converters using EclipseLink APIs

- [KULRICE-9368] - Update TravelAccount and related objects to use JPA and metadata provider information

- [KULRICE-9393] - Determine how best to deprecate ObjectUtils so that it's not referenced from non-legacy KRAD code

- [KULRICE-9397] - Add support for information in the metadata about "version number" columns, use that where needed in LegacyDataAdapter

- [KULRICE-9398] - Merge and rename LegacyPersistenceAdapter and LegacyMetadataAdapter into just LegacyDataAdapter

- [KULRICE-9401] - Reroute any references to PersistenceStructureService in KRAD code through LegacyDataAdapter

- [KULRICE-9408] - Add support to krad-data metadata for the concept of defining additional unique "business keys" on a data object

- [KULRICE-9415] - Resolve EclipseLink JPA predicate ordering issue

- [KULRICE-9417] - Determine if we really need org.kuali.rice.krad.data.provider.util.PersistenceUtils

- [KULRICE-9474] - Implement defaulting of attribute security in the metadata based on the presence of an encryption converter

- [KULRICE-9480] - Default Inquiry Definition from krad-data metadata

- [KULRICE-9481] - Default Lookup Definition from krad-data metadata

- [KULRICE-9487] - Inquiry export button does not open file download dialog

- [KULRICE-9513] - Create script which can convert OJB files to JPA mappings in existing code

- [KULRICE-9515] - Document how to convert OJB descriptor mappings to JPA

- [KULRICE-9516] - Create an overview/intro for the krad-data module

- [KULRICE-9517] - Document how to use JpaPersistenceProvider

- [KULRICE-9519] - Document the metadata chaining and how to assemble multiple metadata providers together using CompositeMetadataProvider

- [KULRICE-9520] - Document the process for setting up and using AnnotationMetadataProvider

- [KULRICE-9521] - Document the process for setting up and using SpringMetadataProvider

- [KULRICE-9523] - Document how to use the DataObjectService api to perform persistence operations

- [KULRICE-9524] - Ensure that the krad-data module is fully javadoc'd

- [KULRICE-9526] - Document which classes have been deprecated and why they have been deprecated

- [KULRICE-9529] - Document how to use the new extension framework

- [KULRICE-9532] - Document how transactions are managed in KRAD data

- [KULRICE-9535] - Document what the LegacyDataAdapter is for and how it's used

- [KULRICE-9537] - Document the approach for conversion to krad-data of the various internal Rice modules

- [KULRICE-9538] - Convert KRAD data objects to krad-data and JPA

- [KULRICE-9539] - Get all existing KEW integration tests passing in preperation for conversion of KEW to JPA

- [KULRICE-9540] - Convert KSB data objects to krad-data and JPA

- [KULRICE-9541] - Convert Core Service data objects to krad-data and JPA

- [KULRICE-9542] - Convert KEN data objects to krad-data and JPA

- [KULRICE-9543] - Convert KIM data objects to krad-data and JPA

- [KULRICE-9544] - Convert KRMS data objects to krad-data and JPA

- [KULRICE-9545] - Convert eDocLite data objects to krad-data and JPA

- [KULRICE-9546] - Convert location module data objects to krad-data and JPA

- [KULRICE-9547] - Convert KRAD sample app data objects to krad-data and JPA

- [KULRICE-9552] - Deprecate old business object classes and document replacements (if any)

- [KULRICE-9573] - Remove references to McKoi database since it's not supported or used

- [KULRICE-9575] - Look at using DataFieldMaxValueIncrementer in spring as a replacement for SequenceAccessorService

- [KULRICE-9638] - Remove the enEncryptionService from the application

- [KULRICE-9639] - Convert the DictionaryValidationServiceImpl to use the LegacyDataAdapter

- [KULRICE-9640] - ReferenceLinker.linkObjectsWithCircularReferenceCheck in krad-data needs to handle formatting when setting the property value

- [KULRICE-9649] - Write a unit and integration test for ReferenceLinker

- [KULRICE-9670] - Upgrade to Eclipselink 2.5

- [KULRICE-9671] - Remove all references to Hibernate dependencies

- [KULRICE-9673] - Rename the "Accessor" class to "DataObjectWrapper", rename DataObjectService.accessor to "wrap"

- [KULRICE-9690] - Rework legacy processing so that legacy context is established properly when in KNS and not KNS

- [KULRICE-9715] - Update XStream-based XML serializers to skip JPA generated fields

- [KULRICE-9716] - Remove KRAD DAOs or DAO methods where they utilize OJB and no longer have to (pass 1)

- [KULRICE-9727] - Upon returning from a lookup, focus and navigate to a specific place on a page

- [KULRICE-9731] - Upgrade Rice to the latest version of the Spring Framework 3.2.x

- [KULRICE-9733] - Implement a class in the core for tracking Jta TransactionManager and UserTransaction

- [KULRICE-9734] - Create an EclipseLink "ExternalTransactionController" implementation which pulls whatever the configured JTA implementation is for the Rice application

- [KULRICE-9736] - Reimplement TransactionManagerFactoryBean and UserTransactionFactoryBean to use the new Jta class in the Rice core

- [KULRICE-9737] - Check what the latest version of Spring is prior to the beginning of QA

- [KULRICE-9738] - Cleanup and remove unused parameters for JPA in common-config-defaults.xml

- [KULRICE-9739] - Improve ease of configuration of JPA for a module that is using KRAD

- [KULRICE-9805] - Lookup - Need export for document type xml to use proper export function

- [KULRICE-9810] - RouteLog fails to load because of TimSort issue in Java 7

- [KULRICE-9855] - Upgrade custom Spring bean factory to current Spring version (3.2.3)

- [KULRICE-9864] - Add Lookup Conversion to Conversion Script - Part 1

- [KULRICE-9872] - Implement a simple approach for importing common KRAD JPA entities into a KRAD application's persistence context

- [KULRICE-9916] - Do checkbox conversion in LookupInputField only when specified through attribute definition

- [KULRICE-9919] - Include and log original error in stack traces related to transaction rollback exceptions

- [KULRICE-9923] - Conversion Guide: Multi Value Lookup

- [KULRICE-9924] - Conversion Guide: Other Lookup Features

- [KULRICE-9940] - Cleanup from new copy methods

- [KULRICE-9973] - General JavaDoc cleanup in the new metadata objects code

- [KULRICE-9976] - KRAD-Data Code review updates

- [KULRICE-9987] - Remove jobNames and TriggerNames from ModuleConfiguration

- [KULRICE-10017] - Labels not aligned using CSS grid layout - New Css Grid Layout with label columns

- [KULRICE-10038] - Mock for Multi Value Lookups Controls

- [KULRICE-10039] - Create a better Lab View for Lookup Default Sort

- [KULRICE-10074] - Document the setup requirements around load-time weaving with Eclipselink and for the Rice standalone server

- [KULRICE-10104] - Get krad-it integration tests working

- [KULRICE-10110] - Cleanup on copy methods

- [KULRICE-10114] - Maintenance Gap Analysis: Data Dictionary Properties (rows 82 - 85)

- [KULRICE-10115] - Maintenance Gap Analysis: Business Rules (rows 74 - 79)

- [KULRICE-10116] - Maintenance Gap Analysis: Permission

- [KULRICE-10120] - Attribute Definition: Conversion Guide

- [KULRICE-10121] - Attribute Definition: Conversion Script

- [KULRICE-10124] - Add Lookup Conversion to Conversion Script - Part 2

- [KULRICE-10126] - Create section in documentation for krad-data module

- [KULRICE-10127] - Create section in document for conversion from KNS+OJB to KRAD+JPA

- [KULRICE-10128] - Document how to convert OJB FieldConversion to JPA Converters, document standard converters

- [KULRICE-10130] - Document how to use @PortableSequenceGenerator for sequence generation across database platforms in JPA

- [KULRICE-10131] - Document how to use MaxValueIncrementerFactory to get next sequence values

- [KULRICE-10132] - Document how to use KradEclipseLinkEntityManagerFactory

- [KULRICE-10133] - Document the MetadataRepository and the metadata model that it uses

- [KULRICE-10134] - Document the process for setting up JpaMetadataProvider

- [KULRICE-10136] - Document how to use the DataObjectWrapper

- [KULRICE-10137] - Document how to use DAO's and Named Queries with JPA and the krad-data module

- [KULRICE-10149] - Remove all reference to now deprecated SequenceAccessorService and DatabasePlatform.getNextValueSQL

- [KULRICE-10155] - Create a JUnit TestRunner which forks the classpath so that we can avoid having to code our tests around load-time weaving issues

- [KULRICE-10158] - Names on the Route Log are always showing up as Xxxxx

- [KULRICE-10172] - Clean BreadcrumbItem instances from HistoryFlow

- [KULRICE-10190] - Remove personal .sh and other scripts from the codebase

- [KULRICE-10192] - Update css grid manager to use Bootstrap 3 classes & structure

- [[KULRICE-10194](#)] - Inquiry Gap Analysis: Non-PK Inquiry keys

- [[KULRICE-10195](#)] - KNS to KRAD Conversion Script: Document & Test Conversion Script

- [[KULRICE-10196](#)] - KNS to KRAD Conversion Script: Correct Namespace and Scaffold Generator

- [[KULRICE-10197](#)] - Inquiry Gap Analysis: Redirection of Inquiry pages for EBO classes

- [[KULRICE-10211](#)] - Inquiry Gap Analysis: Downloading attachments linked to BOs

- [[KULRICE-10212](#)] - Inquiry Gap Analysis: Decryption of sensitive URL parameters before BO lookup

- [[KULRICE-10236](#)] - Maintenance Gap Analysis: basic stuff (rows 2-5)

- [[KULRICE-10237](#)] - Maintenance Gap Analysis: basic stuff (rows 7-10)

- [[KULRICE-10238](#)] - Maintenance Gap Analysis: basic stuff (rows 11-14)

- [[KULRICE-10239](#)] - Maintenance Gap Analysis: basic stuff (rows 15-19)

- [[KULRICE-10240](#)] - Maintenance Gap Analysis: basic stuff (rows 20-23)

- [[KULRICE-10241](#)] - Maintenance Gap Analysis: basic stuff (rows 24-27)

- [[KULRICE-10242](#)] - Maintenance Gap Analysis: basic stuff (rows 28-30)

- [[KULRICE-10243](#)] - Maintenance Gap Analysis: basic stuff (rows 31-34)

- [[KULRICE-10244](#)] - Maintenance Gap Analysis: basic stuff (rows 35-38)

- [[KULRICE-10249](#)] - KNS to KRAD Conversion Script: Get converted knsapp application to start up

- [[KULRICE-10253](#)] - ExtensionAttributeTest is failing because it's returning the wrong parent class

- [[KULRICE-10255](#)] - Inquiry Gap Analysis: appropriate implementation of forceUppercase

- [[KULRICE-10256](#)] - Inquiry Gap Analysis: automatic display of codes formatted as code value, delimiter, name

- [[KULRICE-10257](#)] - Implement support for inquiry in conversion scripts

- [[KULRICE-10261](#)] - Inquiry download custom BO attachments, KRAD support

- [[KULRICE-10269](#)] - Inquiry Conversion Guide

- [[KULRICE-10281](#)] - Convert KEW Document Tables to JPA

- [[KULRICE-10282](#)] - Convert KEW Document Type tables to JPA

- [[KULRICE-10283](#)] - Convert KEW Searchable Attribute tables to JPA

- [[KULRICE-10284](#)] - Convert KEW Action Taken and Action Request tables to JPA

- [[KULRICE-10285](#)] - Convert KEW Action List tables to JPA

- [[KULRICE-10286](#)] - Convert KEW Rule tables to JPA

- [[KULRICE-10287](#)] - Convert KEW Type and PeopleFlow tables to JPA

- [KULRICE-10288] - Convert KEW UserOption table to JPA

- [KULRICE-10290] - Improve visual styling for unified header

- [KULRICE-10291] - Improve visual styling for popover action

- [KULRICE-10292] - Dropdowns not adjusting width to contents

- [KULRICE-10295] - Numerous krad-it tests failing because of sql files that were deleted

- [KULRICE-10296] - Short Term Database Process Improvement

- [KULRICE-10300] - Rename QueryByCriteria.forAttributes to andAttributes and orAttributes

- [KULRICE-10301] - Repair various integration test issues in the KRAD module related to JPA conversion

- [KULRICE-10302] - Analysis - Results not on the current page are not returned by multivalue lookup's "return selected" action

- [KULRICE-10303] - Add ForceUppercase to metadata model and default into DD

- [KULRICE-10305] - Lookup: Set default values on "clear values"

- [KULRICE-10315] - Update notice.txt per legal recommendations

- [KULRICE-10317] - Finish Implementation on KRAD Maintenance clearUnauthorizedNewFields on copy

- [KULRICE-10318] - Maintenance Document delete forwards to INITIATED document instead of deleting

- [KULRICE-10350] - Determine whether multivalue lookups can be used for EBOs

- [KULRICE-10417] - Inquiry Permission Gap Analysis: checks for if a hidden field can be displayed

- [KULRICE-10418] - Inquiry Permission Gap Analysis: checks for if a hidden section can be seen

- [KULRICE-10424] - Research OLE performance on Bibliographic Editor

- [KULRICE-10440] - Maintenance Gap Analysis: basic stuff (rows 39-42)

- [KULRICE-10441] - Maintenance Gap Analysis: basic stuff (rows 43-46)

- [KULRICE-10442] - Maintenance Gap Analysis: basic stuff (rows 47-50)

- [KULRICE-10446] - Inquirable Gap Analysis: Ability to add new sections dynamically

- [KULRICE-10447] - Inquirable Gap Analysis: Ability to remove or modify existing sections dynamically

- [KULRICE-10448] - Inquirable Gap Analysis: Ability to customize the Inquiry URL rendered

- [KULRICE-10449] - Inquirable Gap Analysis: Ability to add content to the header section of the inquiry

- [KULRICE-10450] - Inquirable Gap Analysis: Opening of Inquiries in separate windows

- [KULRICE-10451] - Inquirable Gap Analysis: Special support when the BO class is DocumentHeader to build a workflow DocHandler.do link to cause the document to load

- [KULRICE-10453] - Application specific RESULTS_Limit parameters

- [KULRICE-10465] - KRAD Conversion Script - option to Replace or Add properties during data dictionary conversion

- [KULRICE-10468] - Prepare Lookup Gap Analysis for Focus Group

- [KULRICE-10470] - isEnableAutoQuickfinder not working with UserControl and GroupControl

- [KULRICE-10495] - Create lookup sample with complex custom actions

- [KULRICE-10508] - Verify that all property name changes are reflected in the KRAD Documentation

- [KULRICE-10509] - Maintenance Gap Analysis: Global Maintenance Documents (rows 68-71)

- [KULRICE-10510] - Maintenance Gap Analysis: Maintainables (rows 53,55-57)

- [KULRICE-10511] - Maintenance Gap Analysis: Maintainables (rows 58-61)

- [KULRICE-10512] - Maintenance Gap Analysis: Maintainables (rows 62-65)

- [KULRICE-10513] - Maintenance Gap Analysis: Data Dictionary Properties (rows 86 - 89)

- [KULRICE-10514] - Maintenance Gap Analysis: Data Dictionary Properties (rows 90 - 94)

- [KULRICE-10515] - Maintenance Gap Analysis: Data Dictionary Properties (rows 95 - 98)

- [KULRICE-10516] - Maintenance Gap Analysis: Data Dictionary Properties (rows 99 - 102)

- [KULRICE-10517] - Maintenance Gap Analysis: Data Dictionary Properties (rows 103 - 106)

- [KULRICE-10518] - Document Dropdown Menu and Menu Action components

- [KULRICE-10523] - Address Lookup Review Findings

- [KULRICE-10524] - Collections: Add option to hide column when no data

- [KULRICE-10530] - Gap Analysis: Features Customizable via LookupableHelperService (L87 - L96)

- [KULRICE-10534] - Multivalue lookup server side select for server side paging

- [KULRICE-10535] - Multivalue Global Hander Disable/Enable of return selected button

- [KULRICE-10538] - retrieveViaAjax delay lifecycle analysis

- [KULRICE-10545] - Review document search for lookup analysis items

- [KULRICE-10546] - Establish unit tests for implementing multi-threading

- [KULRICE-10558] - Review solution for KULRICE-10466 (Inquiry Link Issue)

- [KULRICE-10583] - Document enabling the delete action on maintenance documents in KRAD

- [KULRICE-10620] - Regex Constraint demos Timestamp, 12h, and 24h demoing incorrect constraint

- [KULRICE-10621] - Dialog buttons need a re-styling

- [KULRICE-10623] - Unclear example in CharsetPatternConstraint demo Field 2

- [[KULRICE-10630]] - Adjust control height

- [[KULRICE-10646]] - Add input field samples with withWidgetOnly options in krad libary

- [[KULRICE-10663]] - Lookup: Update action column to accept any component

- [[KULRICE-10711]] - Data Dictionary Analysis (items DD1 - DD6)

- [[KULRICE-10712]] - Data Dictionary Analysis (items DD7 - DD9)

- [[KULRICE-10720]] - Transactional Document Analysis (items T1 - T4)

- [[KULRICE-10721]] - Transactional Document Analysis (items T5 - T8)

- [[KULRICE-10722]] - Transactional Document Analysis (items T9 - T12)

- [[KULRICE-10723]] - Transactional Document Analysis (items T13 - T16)

- [[KULRICE-10724]] - Transactional Document Analysis (items T17 - T21)

- [[KULRICE-10732]] - Stacked collection pagination css is broken

- [[KULRICE-10733]] - Maintenance Gap Analysis: Permission Checks (item M96 - M100)

- [[KULRICE-10734]] - Maintenance Gap Analysis: Permission Checks (item M101 - M105)

- [[KULRICE-10741]] - KNS Lookup Equivalence: Alternate Lookup Icon

- [[KULRICE-10749]] - KRAD Conversion Script. Control / ValidationPattern sub-property issues

- [[KULRICE-10814]] - Create Demo View Plan for Advanced Lookup Features

- [[KULRICE-10815]] - Prepare Maintenance Gap Analysis for Focus Group - Part 1

- [[KULRICE-10816]] - Prepare Data Dictionary Gap Analysis for Focus Group

- [[KULRICE-10818]] - Add custom operators to KRMS documentation

- [[KULRICE-10841]] - Analysis for Uif Framework - support for references to refresh

- [[KULRICE-10843]] - create demo view for L9, support for the special lookup operators

- [[KULRICE-10844]] - Add documentation to the conversion guide for L20, L22, L24, L33

- [[KULRICE-10847]] - Implement JSHint on Intellij

- [[KULRICE-10850]] - Correct case of Uif-MaintenanceTableSubCollection-WithinSection

- [[KULRICE-10864]] - Double check content of Lookup Conversion Guide

- [[KULRICE-10880]] - Placholder functionality (delayed lifecycle) for Disclosure widget

- [[KULRICE-10894]] - Add Multi Value Lookup conversion to MaintainableCollectionsDefinition

- [[KULRICE-10897]] - Cannot save or route a Context document, same issue with Term document

- [[KULRICE-10898]] - Cannot add proposition while creating new agenda.

- [[KULRICE-10911]] - Lookup: Hide page message if only number of results message is displayed

- [KULRICE-10918] - Quickstart Archetype: Add maven filtering to resource file

- [KULRICE-10934] - Cannot route documents and workflow simulation is broken

- [KULRICE-10937] - Determine the best way to handle "refresh reference" and leverage EntityManager.getReference for JPA

- [KULRICE-10938] - LifecycleAwareList and related objects not serializable

- [KULRICE-10964] - KRAD User Guide: Lookup Results Add description that any component can be in action column

- [KULRICE-10974] - Advanced Lookup Demo - Create Business Objects

- [KULRICE-10975] - KEW Routing Problem in Distributed where the data exists but trying to route can't load the document

- [KULRICE-10977] - Multi Value Lookup : Implement server side paging for both rich and non rich tables when data selected is not on current page

- [KULRICE-10979] - Loading indicator not centered

- [KULRICE-10980] - Analysis on performance tasks

- [KULRICE-10981] - Reduce size of action output

- [KULRICE-10983] - Reduce validation message divs

- [KULRICE-10984] - Reduce div nesting

- [KULRICE-10987] - Create Conversion Guide Documenation for M17-M22

- [KULRICE-10988] - Create Conversion Guide Documenation for M24-M25

- [KULRICE-10989] - Create Conversion Guide Documenation for M41-M42

- [KULRICE-10990] - Lookup Gap Analysis: L136 - L139

- [KULRICE-10991] - Advanced Lookup Demo - Create Trip Type KeyValuesFinder

- [KULRICE-10992] - Advanced Lookup Demo - Create Expense Type KeyValuesFinder

- [KULRICE-10993] - Prepare Maintenance Gap Analysis for Focus Group - Part 2

- [KULRICE-10998] - Cleanup: Improve cleanup scripts so that all sample data is removed from bootstrap datasets

- [KULRICE-11001] - Advanced Lookup Demo - ORM mapping for BOs

- [KULRICE-11002] - Advanced Lookup Demo - integration test for BO persistence

- [KULRICE-11003] - Advanced Lookup Demo - Configure basic DD, Maintenance, Lookup & Inquiry for Primary Destination

- [KULRICE-11004] - Advanced Lookup Demo - Configure basic DD, Maintenance, Lookup & Inquiry for Mileage Rate

- [KULRICE-11005] - Advanced Lookup Demo - Configure basic DD, Maintenance, Lookup & Inquiry for Company Name

- [[KULRICE-11006](#)] - Advanced Lookup Demo - trans doc form & view

- [[KULRICE-11007](#)] - Advanced Lookup Demo - trans doc controller

- [[KULRICE-11008](#)] - Advanced Lookup Demo - trans doc authorizer & permissions

- [[KULRICE-11009](#)] - Advanced Lookup Demo - trans doc workflow & roles

- [[KULRICE-11042](#)] - Move methods in ExpressionUtils to ExpressionEvaluator so they can be overridden

- [[KULRICE-11047](#)] - Remove build-time dependencies on ojdbc6_g.jar

- [[KULRICE-11048](#)] - Create sample app test page for KRAD custom icon set

- [[KULRICE-11051](#)] - Add database upgrade paths link to release notes

- [[KULRICE-11061](#)] - Build Labs page for inquiry features index

- [[KULRICE-11062](#)] - Do POC on changing lifecycle to use reflection

- [[KULRICE-11069](#)] - Portal menu - missing classes in DOM

- [[KULRICE-11082](#)] - KC POC: View Header DOM

- [[KULRICE-11084](#)] - KC POC: Document Info section classes

- [[KULRICE-11087](#)] - KC POC: Expand/collapse all buttons

- [[KULRICE-11101](#)] - Styling on sticky footer

- [[KULRICE-11113](#)] - rice-2.3 and trunk are missing scripts/upgrades/2.1.3 to 2.2.1

- [[KULRICE-11115](#)] - Enhance conversion scripts to connect to Rice database

- [[KULRICE-11144](#)] - Improve visual treatment of tabs (groups)

- [[KULRICE-11145](#)] - Allow for container fixed or fluid to be specified at view level

- [[KULRICE-11146](#)] - Improve visual treatment of dialogs

- [[KULRICE-11171](#)] - Visual styling on unified header

- [[KULRICE-11176](#)] - Allow for input groups

- [[KULRICE-11196](#)] - Sticky header logic fixes

- [[KULRICE-11198](#)] - Improve visual treatment of collapsable panels (stackedCollectionLayout)

- [[KULRICE-11199](#)] - Support for delete icon on collection line headers

- [[KULRICE-11200](#)] - Change disclosure images to icons

- [[KULRICE-11206](#)] - Move text expand icon to input group

- [[KULRICE-11207](#)] - Write intro paragraph for inquiry in the conversion guide

- [[KULRICE-11216](#)] - Change cellCssClasses to wrapper class in component base

- [KULRICE-11221] - Provide ability to use add line with stacked list

- [KULRICE-11223] - Build Labs page for maintenance doc features index

- [KULRICE-11225] - Touch up on KRAD sampleapp

- [KULRICE-11230] - KRAD Conversion Script: Build out form conversion

- [KULRICE-11264] - KRMS does not allow null or blank NL templates

- [KULRICE-11265] - update in AgendaBoServiceImpl and RuleBoServiceImpl not updating actionAttributes

- [KULRICE-11268] - Travel Demo App maintenance document security not defined.

- [KULRICE-11278] - Add caching annotations to translate Natural Language methods in the KRMS RuleManagementService

- [KULRICE-11280] - Add option to lookups to hide criteria on a search

- [KULRICE-11333] - samples for M44

- [KULRICE-11335] - samples for M35

- [KULRICE-11342] - samples for M32, M38, M40

- [KULRICE-11345] - samples for M41, M42, M43

- [KULRICE-11348] - Create Conversion Guide Documenation for M29 & M48

- [KULRICE-11349] - Create Conversion Guide Documenation for M41, M42, M54

- [KULRICE-11352] - Create Conversion Guide Documenation for M59, M60, M61, M65

- [KULRICE-11353] - Create Conversion Guide Documenation for M77, M78, M80 - M83

- [KULRICE-11354] - Create Conversion Guide Documenation for M84 - M87

- [KULRICE-11355] - Create Conversion Guide Documenation for M88, M89

- [KULRICE-11356] - Create Conversion Guide Documenation for M101 - M105

- [KULRICE-11359] - samples for M71

- [KULRICE-11360] - Add html output viewer to usage tab in KRAD sample app

- [KULRICE-11377] - return links showing up for plain old lookups of KIM entities converted to KRAD

- [KULRICE-11379] - sample for M29

- [KULRICE-11418] - KRAD Sample Travel App: Add field requirements and standardize labels

- [KULRICE-11419] - KRAD Sample Travel App: Move unnecessary screens into their own menu section

- [KULRICE-11426] - Ability to view KNS pages within the KRAD portal

- [KULRICE-11427] - Ability to display Rice server functionality within the KC portal

- [KULRICE-11437] - Verify that XSS protection fix hasn't disabled HTML support in tooltip help

- [KULRICE-11450] - Maintenance Conversion Script - M17 Disclosure Default Open

- [KULRICE-11451] - Maintenance Conversion Script - M19 Help URL

- [KULRICE-11452] - Maintenance Conversion Script - M20 & M21 Hide/ReadOnly Section

- [KULRICE-11453] - Maintenance Conversion Script - M22 Additional JS File

- [KULRICE-11454] - Maintenance Conversion Script - M41 OnBlur

- [KULRICE-11456] - Maintenance Conversion Script - M71 - M76, M79, M81 Carry overs

- [KULRICE-11457] - Maintenance Conversion Script - M82 & M83 ReadOnly

- [KULRICE-11458] - Maintenance Conversion Script - M84 & M85 alternate/additional display attribute name

- [KULRICE-11459] - Maintenance Conversion Script - M87 Add Line & M88 Multiple Lookup Line

- [KULRICE-11460] - Maintenance Conversion Script - M89 Collection deletion

- [KULRICE-11461] - Reanalyze M88

- [KULRICE-11462] - Reanalyze M57

- [KULRICE-11470] - Create Yes/No Dialog sample in Travel App

- [KULRICE-11476] - fix I19 sample

- [KULRICE-11496] - Convert KCB entities from OJB to JPA

- [KULRICE-11510] - Maintenance Conversion Script - documentAuthorizerClass property

- [KULRICE-11560] - Remove manually-detected duplicate code from SendNotificationMessageController and SendEventNotificationMessageController

- [KULRICE-11561] - Check that Lookup conversion guide and conversion scripts are up to date

- [KULRICE-11562] - Check that Inquiry conversion guide and conversion scripts are up to date

- [KULRICE-11563] - Check that Maintenance conversion guide and conversion scripts are up to date

- [KULRICE-11564] - add permission templates and additional permissions to conversion script SQL output

- [KULRICE-11565] - Remove tooltip span on controls when not needed

- [KULRICE-11578] - Option labels always go through message template

- [KULRICE-11602] - Create extension points to override ExpressionEvaluator

- [KULRICE-11603] - Conversion Script: CollectionDefinition conversion calling transformNumberOfColumns twice

- [KULRICE-11614] - Conversion Guide: Write Lookup and Maintenance Section Overviews

- [KULRICE-11624] - Sticky view header broken from structure changes

- [[KULRICE-11666](#)] - Replace see references with inheritdoc

- [[KULRICE-11678](#)] - Rework base html template

- [[KULRICE-11689](#)] - Modify label default configuration

- [[KULRICE-11702](#)] - IT Failure org.kuali.rice.krad.service.LookupServiceTest - Missing trv_acct_fo table

- [[KULRICE-11711](#)] - Maintenance Conversion Script for M80 LookupReadonlyControlDefinition

- [[KULRICE-11725](#)] - Finish KIM RoleDao conversion for JPA

- [[KULRICE-11741](#)] - Conversion Script: Update BusinessObject conversion to update and not replace based on configuration

- [[KULRICE-11750](#)] - Remove field label position option

- [[KULRICE-11755](#)] - Look into performance analysis data from Jan 14 F2F

- [[KULRICE-11757](#)] - BooleanYNConverter Incident Report - Peopleflow ad hoc recipient Group lookup

- [[KULRICE-11771](#)] - Create fully working Quick Finder Lookup with Parameters sample

- [[KULRICE-11784](#)] - Rework DataTablesPagingHelper to use lifecycle to remove form storage requirements

- [[KULRICE-11793](#)] - Rework collection paging to reduce memory usage

- [[KULRICE-11794](#)] - Rework table export to reduce memory usage

- [[KULRICE-11802](#)] - Create application header fixed example

- [[KULRICE-11819](#)] - Term Specification maintenance doc not loading related contexts

- [[KULRICE-11849](#)] - Remove copyProperties methods from UIF classes

- [[KULRICE-11850](#)] - Create Confirmation Dialog on Maintenance Document Submit

- [[KULRICE-11854](#)] - Dialog takes more screen space than it should

- [[KULRICE-11860](#)] - Ensure conversion of MaintableCollectionDefinition without includeMultipleValueLookupLine results in the creation of the correct quickfinder

- [[KULRICE-11863](#)] - Fix JavaDoc Recursion

- [[KULRICE-11878](#)] - Create Sample of issue for KULRICE-5979

- [[KULRICE-12033](#)] - Add annotation to enable serialization opt-in / opt-out for individual maintenance doc fields

- [[KULRICE-12073](#)] - Document impacting changes to UIF Lifecycle for Rice 2.4

- [[KULRICE-12101](#)] - Document the various *.krad.url configuration parameters

- [[KULRICE-12174](#)] - Person Document, suppress email privacy property does not work.

- [[KULRICE-12356](#)] - Create login filter for load testing

- [KULRICE-12358] - TreeGroup broken

- [KULRICE-12409] - Remove rice-sampleapp Kitchen Sink

- [KULRICE-12411] - Unable to edit responsibilities

- [KULRICE-12414] - Responsibility actions are not saved in all cases when editing roles

- [KULRICE-12417] - Correct errors in the installation guide's "Building the Rice Database" section

- [KULRICE-12428] - On PeopleFlow maint doc, the lookup for a Role member isn't returning the roll