iKnowBase Release Notes

Version 8.1.6

Table of Contents

Chapter 1. Introduction

This document contains release notes for iKnowBase software releases 8.1.6 and back to release 6.0. For older versions, refer to earlier release notes.

Two important issues before you continue:

- The installation guide is upgraded for every version. Please read the installation guide before starting your upgrade process.

- Always upgrade a test environment before upgrading the production environment, and make sure that the new version works well with your existing applications and solutions.

Chapter 2. New features

This chapter lists major new features for each release. Note that there might be many smaller enhancements not shown in this chapter, listed in detail in the "closed issues" chapter.

2.1. Release 8.1

- Support for JDK 11.

- Support for Oracle Database 19c

- Support for Oracle Cloud Autonomous Database.

2.2. Release 8.0

- Generic support for OpenID Connect identity federation enables sign in support for a wide range of external identity providers.

  - Includes auto-connecting accounts on sign in when the user has a preexisting local account.

  - Includes support for sign up if the user does not have a preexisting user account.

2.3. Release 7.7

- The ContentQuery Java API is now capable of using an annotated java bean and additional object injection and/or post processing arguments to further and more elegantly enhance the resulting bean. This is also now supported per ContentQueryRow, and not only for the whole result row set.

- The Solr configuration allows for specifying whether to use XML or BINARY for the network communication; the XML protocol is slower, but has better compatibility with different Solr server versions. BINARY is still the default.

- iKnowBase user repository now supports bcrypt password algorithm.

- iKnowBase Page Engine now supports Java Form portlets to ease migration from iKnowBase Classic to the new Java-based development model. You may convert an existing Classic Form definition to a Java Form definition.

2.4. Release 7.6

- "iKnowBase Functions" is a new service that enables managed execution of Java functions. Executions can be initiated using either a Java or a PL/SQL API, and can be either synchronous or asynchronous. Executions are scheduled using an Oracle AQ-queue, and served by a service inside the iKnowBase application server. Each execution is logged, with input and output values. "Functions" provide excellent performance, scalability, and manageability. It may replace custom queue based solutions and ease migration from iKnowBase Classic to the new Java-based development model.

- The ContentQuery Java API is now capable of using an annotated java bean for both configuration and mapping. A simple java class with properties annotated with

@AttributeMapping can be used in the method `select(class)`, in order to specify which attributes to retrieve, and in the method `getRows(class)`, to retrieve an already-mapped java object.

- A new Java API allows for easy and stepwise migration from Classic Pages. It is now possible to configure a Classic Page with a reference to a Java method, which will then be responsible for rendering the page. The method will have access to all data from the Page, but can also use pure Java mechanisms to optimize performance and improve the development experience.

- A new feature in the Classic PageEngine allows a Classic Page to use a pure Java Servlet or @Controller as a Layout Page, with no configuration in the Classic repository. This mechanism, too, enables gradual migration from iKnowBase Classic to the new Java-based development model.

- A new authentication module uses HTTP-headers to manage the responses given for authentication failures. This gives clients such as single page javascript applications or mobile apps complete control of the login flow, and enables a more seamless application experience.

- WebDAV now supports editing non-active versions of versioned documents if enabled on the document type definition.

2.5. Release 7.5

- Static resources are now supported as root resources enabling any non-reserved paths to be used for these resources. This enhances support for deployment of modern front end applications and they may now freely choose deployment path.

- A new method on SolrSearchClient enables streaming of the Solr search result directly to a web client, in the format returned from the Solr server.

- The service API now support the operations save, copy, delete and get for subsystems.

- Support recovery of deleted documents. Activate the trash bin functionality per document type by setting a number of days to keep the documents. Deleted documents will automatically be stored in the trash bin and can be restored from a new pane in the Content Studio (/cs/tools/trashbin). Expired 'trash' will automatically be removed after the number of days set on the information type.

- Support audit trail for document changes. Audit trail is activated by a document event. The event function 'Audit trail for documents' is installed during upgrade. The event function will track all changes to a document, including timestamp, username, original and new values. Note: Values for large object (clob/blob) are not stored in the audit log. The audit trail for a document is available in Content Studio.

2.6. Release 7.4

- The ContentQuery Java API now supports the use of database functions implemented in PL/SQL. These functions can return varchar, clob, number or date values, and can be used in both select() and order() clauses.

- The ContentQuery Java API now supports the use of client-side functions implemented in Java. These functions can return String, Number, Date or Object values, and can be used only in select() clauses. They function as "virtual columns", are only evaluated on demand, and only

once per row.

- The PageService Java API now supports rendering Java portlets on demand, by name. This enables the creation of dynamic pages, where the choice of portlets is made at run time rather than at design time.

- The Java API for implementing portlets now resolves method arguments of SolrSearchClientProvider, enabling the use of Solr from inside portlets.

- A new FreeMarker function `encodeURL` provides easier access to the static resources cache features first introduce in iKnowBase 7.2.

- The ContentServer now supports conditional caching. For objects that do not have specific cache rules, it will produce "Last-Modified" and "Cache-control" headers, and it will honor "If-Modified-Since" in requests.

- REST API for provisioning user accounts, groups and access control lists is now included.

- REST infrastructure for building services based on Spring Data REST and Spring HATEOAS is now included.

- A new prometheus-exporter makes is easy to monitor the iKnowBase installation using tools such as Prometheus and Grafana.

2.7. Release 7.3

- Simplified continuous deployment of plugins. Plugin developers may now assemble and deploy their plugin to centralized development server(s) directly from command line, IDE or administration console.

- Plugin support for custom WebDAV file structure. Information stored in iKnowBase can now be represented as files and folders accessible using a WebDAV client (Microsoft Windows Explorer, GoodReader, ++). All regular file and folder operations are supported (list, read, create, rename, update, copy, move, delete). The directory structure is fully customizable.

- Plugin support for Java SDK Portlet enables seamless integration of plugin content in iKnowBase Page.

- Content Transformation support in Content Query API enables both Content Transformation links and actual transformation of binary content.

2.8. Release 7.2

- iKnowBase application has been migrated to the Spring Boot platform and is now deployed as a single application.

- New Content Transformation Service for transformation of binary content.

  ◦ Cacheable on demand transformation replaces generation of image variants during save. This results in faster response times during save. It also significantly consumes less storage since only actually used variants are stored in cache. The service is also more flexible since the transformations are not required to be defined in database before use.

  ◦ Leverages preexisting support from existing Image Editor, File Converter, Oracle Multimedia and Oracle Text.

- New transformation support via CloudConvert (www.cloudconvert.com).
- Major enhancements to Java plugin development.
  - Simplified build setup through use of iKnowBase Gradle script plugins.
  - Simplified development through use of @ComponentScan.
  - Greatly enhanced testing support from Spring Boot.
- Improved caching options for static resources. Supports cache headers, versioned resource resolution and in-memory caching of static resources.
- iKnowBase Web Server now handles on-the-fly compression of all text content (html, text, css, js, …)
- Database persisted sessions are now activated by default and offers session availability, which means that
  - Users will not be logged out nor loose any session data if the server is restarted.
  - You may load balance multiple nodes without using session persistence / sticky sessions, which makes it easier to distribute load evenly.

2.9. Release 7.1

iKnowBase 7.1 is a maintenance release focusing on bug fixes and minor improvements. There are no major new features in this release.

2.10. Release 7.0

- Java development enhancements
  - Additional java APIs available for interacting with content
    - ContentQuery for querying for documents and other content
    - DimensionQuery for querying for dimensions
  - Additional Java APIs provides access to Content and Presentation Services for applications that live outside the iKnowBase web application (standalone applications, external web application, integration engines, etc.)
    - ContentServicesEngine for accessing the iKnowBase Content Services
    - PresentationServicesEngine for using the iKnowBase Presentation Services
  - Source code generator for creating java objects and constants matching the iKnowBase metadata, for typesafe java code
  - Simplified development of plugin forms using Spring MVC, bean validation, file based FreeMarker and iKnowBase services.
- Template enhancements
  - The template engine now support JavaScript templates on the server, through the nashorn JavaScript engine available in java 8.
  - The template engine now supports "chained templates", making it possible to combine two

templates in the same request. This enables using for example groovy or javascript for logic, leaving formatting to a more traditional FreeMarker template.

- WebDAV enhancements

  - The WebDAV browser integration does not longer require the SharePoint plugin. Chrome has recently deactivated plugins based on NPAPI and iKnowBase will now by default use Microsoft Office URI scheme protocol extensions instead.

  - The WebDAV server no longer requires a dedicated hostname for itself. While dedicated hostnames are still supported, the new WebDAV module will automatically detect and serve WebDAV traffic for Microsoft Office clients, on the same host and port as the main iKnowBase application.

  - Support for form based authentication has been added, which extends the existing authentication support with both social (e.g. Google) and SAML2 options (e.g. Microsoft ADFS). See WebDAV compatibility section for more information.

- Solr integration enhancements

  - It is now possible to configure the SolrServer-connection using the Java SDK. This gives full control of the SolrServer configuration, including configuration parameters or even the use of custom SolrServer classes.

- Oracle Text

  - Now possible to disable indexing of file (binary) content in Oracle Text, which results in reduced index size, reduced growth and better performance. This is particularly useful if you've started using SOLR search and no longer require this information in the regular iKnowBase Search Sources. See Installation Guide > Database repository.

- iKnowBase LDAP Synchronization enhancements

  - Support for synchronizing users and groups from OpenDJ.

- iKnowBase web server enhancements

  - Support for HTTPS Server Name Indication (SNI) makes it possible to use more than one SSL certificate on iKnowBase web server. This is a typical requirement when hosting multiple sites on the same server and it is now also possible without SSL termination in front of iKnowBase web server.

2.11. Release 6.7

- The various iKnowBase web applications have been merged to a single application, with configuration options to enable and disable features as required. This eases both development and deployment, and it reduces the memory requirements for a typical installation.

- Third-party authentication support has been extended with:

  - Microsoft Live / Microsoft account.

  - SAML2, which enables authentication with SAML2 compatible Identity Providers, such as Microsoft ADFS, Feide and Salesforce.

- Plugin development has gone through a major reconstruction with:

  - New build setup for root project and plugin projects.

- Significant simplification to build logic, project structure, run, debug, and assemble plugin. No additional generated build projects just a root project and your plugins.

- Support in iKnowBase Quickstart utility for assembling the iKnowBase .war deployment with all plugins.

- Major improvements in the Export utility, it now if possible to run precheck against the target destination without file download/upload. This eases the job of creating valid transport sets importable on the destination.

2.12. Release 6.6

- iKnowBase now ships with a security framework based on Spring Security, which provides a number of interesting features:

  - The framework has a large number of supported authentication modules, including BASIC, form, Windows spnego, etc. Multiple modules may be active at the same time.

  - Form-based login is supported for all environments, and is the default for the embedded QuickStart application server.

  - Third-party login is supported through extension to the spring security framework. iKnowBase ships with support for google, facebook, twitter and linkedin-basert authentication.

  - Java-based controllers may now verify ACL-membership as part of their authorization checks.

- The ServiceAPI has been significantly enhanced, both in syntax and functionality, across both the PL/SQL and Java layers. Custom application development using the API is much simpler, and the resulting code is much simpler, than before.

  - Many references to metadata (document types, attributes, etc) can be done using a String value for externalKey, instead of a full ObjectReference object.

  - The most important object types now have a number of easy-to-use constructors that simplify code.

  - Document attribute values are automatically converted during save, according to the attribute type.

  - The SaveDocumentAttributes API allows saving of attributes without having to construct a full Document object. External keys for standard document properties (such as `IKB$TITLE`) lets you update the title of a document without the document object.

- A new command in ikbStudio lets you convert FreeForm and tabular presentation styles to template presentation styles with a single click, with reliable "revert" functionality if the output is not as expected.

2.13. Release 6.5

- Support for arbitrary text editors in Forms, so that you may choose for example TinyMCE 4, CKEditor or others. The mechanisms used for this support make it easy to upgrade the editor in a customer installation, without requiring an iKnowBase-upgrade, for example when an editor

vendor releases a patch to support a new browser.

- An iKnowBase-plugin for TinyMCE 4, so that you can add "link archive" and "image archive" buttons to a TinyMCE 4 editor.

- The ContentServer now supports the Http `Range` header, which is a requirement for various media players to work. Playing video from iKnowBase just got easier!

- Development toolkit has been enhanced with features around front end controller mechanisms, to develop web pages endpoints using java technologies. The toolkit also supports using the iKnowBase template technology from your java applications, and to execute iKnowBase Pages from within java code.

- A new EmailSender service uses java-based email technology as part of the Batch server. This enables access to more functionality such as SSL-based connections, mail server authentication and setting arbitrary SMTP-headers. It also enables email sending from environments where the database itself does not have access to an email server, such as certain secure network or the Amazon RDS for Oracle cloud database platform.

- A new ImagedEditor service uses java-based image editing technology as part of the Batch server. This enables access to image editing in environments where the database does not support Oracle Multimedia extensions, such as the Amazon RDS for Oracle cloud database platform.

- With the two extensions above, iKnowBase can run using an Amazon RDS for Oracle cloud database platform. Note that support for Amazon RDS should be considered experimental in this release.

- The iKnowBase instant request-response interface has been extended, and now supports a uniform mechanism for sending messages and querying for state information across protocols. The interface is available using the all the Instant APIs: JavaScript, HTTP and PL/SQL.

- The iKnowBase Quickstart embedded web server supports HTTPS natively. While we generally recommend terminating HTTPS in a front end appliance or service (such as Apache httpd or similar), there are scenarios where you want or need to serve connections directly from Quickstart. These scenarios can now run HTTPS, too.

2.14. Release 6.4.1

This is a critical maintenance release addressing database connection leak issues and contains no new features.

2.15. Release 6.4

- Enhanced WebDAV server support based on the Milton IO framework. You can now create a link directly from any iKnowBase Content Viewer to the proper Microsoft Office application, in order to edit the document directly.

| NOTE | Requires WebDAV enterprise edition license from Milton IO |

- Enhanced Solr search engine support, allow you to use multiple Solr installations (or Solr "cores") independently. This can be useful as an additional security layer for search setup,

where you can build entirely independent indexes for intranet and internet users, with different information available.

- Development Toolkit for building java components and assembling these as part of the iKnowBase applications. While the toolkit is fully supported, it is not finalized and the underlying APIs may change in the next versions. To start using this toolkit, contact the iKnowBase product development team for more information.

2.16. Release 6.3

- Integrated framework for publishing realtime messages (push messages).
- Links to HTML, PDF and Plain text versions of a document can easily be added to a page. PDF-versions require a separate license namely "iKnowBase Document Conversion Service".
- Includes Activiti BPMN process engine version 5.13.
- Includes Solr search engine version 4.2.

2.17. Release 6.2

A new search engine based on Apache Solr is included.

- Uses the Lucene library for full-text search
- Faceted navigation
- Hit highlighting
- Replication to other Solr servers
- Extensible through plugins
- Pluggable relevance - boost through formula
- Stemming, synonyms, spelling
- Autocomplete functionality

2.18. Release 6.1

- A BPMN process engine based on Activiti.org is included. Activiti is a light-weight workflow and Business Process Management (BPM) Platform targeted at business people, developers and system admins. Its core is a super-fast and rock-solid BPMN 2 process engine for Java.
- The new *iKnowBase Process Studio* with an overview of process definitions and process instances.
- The security model now includes personal access control lists (ACL).
- FTP-server support against the WebDAV file system. Use a standard FTP-client to gain access to files stored in the iKnowBase CMS.
- Added support for Groovy scripts as an alternative to FreeMarker. Groovy uses a Java-like syntax, allowing for the reuse of existing Java-code and competence.
- The new component *Script Target* is an endpoint (url) where the output is rendered as a

complete web page.

- The new component *Script Viewer* presents a template on a page. Output is rendered in-line as for any other portlet.

- Some standard iKnowBase components, ie popups, selectors, calendars, and messages boxes, are re-implemented in Ext JS 4, with some improvements. iKnowBase 6.1 has no longer a dependency to Ext JS 3.

- The TinyMCE editor is upgraded to version 3.5.2.

- New attribute types; user, acl and documenttype.

2.19. Release 6.0

- The Document Archive, delivered as part of the iKnowBase Content Studio, has been rewritten as a rich internet application. The Image Archive component, new in version 5.9, has also been further improved.

- A new web application "ikbWebdav" enables WebDAV-based access to documents inside iKnowBase. This allows direct file access from operating systems (such as Microsoft Windows), or Office Suites (such as Microsoft Office). Further information can be found in the Development Guide.

- A new newsletter-component based on the iKnowBase Page Engine has been included. This provides superior formatting over the old component, with all capabilities from the page engine available for use. Please note that this component is not available on the Oracle OC4J application server technology.

- The embedded web server (part of the Quickstart program) is now supported for production use, with either Microsoft Active Directory or the iKnowBase repository for authentication. When using Microsoft AD, automatic login using Kerberos (SPNEGO, WNA) can be used.

- Tooltip functions have been converted to use the cluetip library. Cluetip supports in addition to title/description tooltips the use of page content rendered in mouseover functions. Further information can be found in the Development Guide.

- A document can be referred in HTML as an image or a file link. This is often done when you use a TinyMCE editor to add text to a document. A new database table will now automatic be updated with these references and can easily be extracted in viewers to display relations between documents. The new table is called document_usage and will be populated every time you save a document.

Chapter 3. Changed functionality

This chapter lists functionality that has changed behavior or has been removed in the specified release, or that will be removed in the future. Read this chapter to see if this version contains changes that influence the functionality provided for and by your solutions.

This chapter does not describe any changes required to your infrastructure or application, in order to maintain current functionality. Such information is described in the next chapter.

3.1. Release 8.1.6

iKnowBase 8.1.1 to 8.1.6 are maintenance releases focusing on bug fixes and security updates. There are no functional changes in these releases.

3.2. Release 8.1

3.2.1. JDK 11

JDK 11 is now the minimum required JDK version and introduces some changes to deployment and functionality. See upgrade section for required changes and required actions if you want to keep the old behaviour (where available).

3.2.2. Classic template support for JavaScript has been removed

Nashorn support is scheduled to be removed from the JDK. Support for JavaScript as classic template implementation type has therefore been removed from iKnowBase. See upgrade issues report in administration console for affected templates.

3.3. Release 8.0.4

iKnowBase 8.0.1 to 8.0.4 are maintenance releases focusing on bug fixes and security updates. There are no functional changes in these releases.

3.4. Release 8.0

3.4.1. Spring Social

- Replaced support for Spring Social (end of life) with Spring Security OAuth2. Reconfiguration is required.
  - As part of that change, we've removed support for authorized client connection for the external provider. This feature was never used.

3.4.2. Deprecate support for Internet Explorer older than version 11

Microsoft has ended support for Internet Explorer older than version 11. iKnowBase 8.0 will be the last version that supports Internet Explorer versions older than 11.

> Beginning January 12, 2016, only the most current version of Internet Explorer available for a supported operating system will receive technical supports and security updates. Internet Explorer 11 is the last version of Internet Explorer, and will continue to receive security updates, compatibility fixes, and technical support on Windows 7, Windows 8.1, and Windows 10.
>
> — https://www.microsoft.com/en-us/WindowsForBusiness/End-of-IE-support

3.4.3. Deprecate support for Java 8

iKnowBase 8.0 will be the last version with support for Java 8.

3.5. Release 7.7

3.5.1. WebLogic provider authentication against iKnowBase user repository no longer supported

Using WebLogic container mode to authenticate against iKnowBase user repository is not supported from iKnowBase 7.7+. iKnowBase 7.7+ will by default use bcrypt for password storage, which is not supported by WebLogic's standard authentication provider adapters.

See Web Application Security section for configuring iKnowBase's own authentication modules.

3.5.2. Deprecate support for Nashorn JavaScript Engine

Java has deprecated it's support for the Nashorn JavaScript Engine (http://openjdk.java.net/jeps/335) in JDK 11. This leads to deprecation of support for the Nashorn JavaScript Engine in iKnowBase as well.

3.6. Release 7.6

- Going forward, documentation will only be delivered in HTML format.

3.7. Release 7.5

3.8. Release 7.4

3.8.1. Fix inconsistency in Java API

NOTE	The changes here apply only to the Java API. ContentViewers and Templates in iKnowBase Classis are not affected.

The method ContentQueryRow.getValue() is available in two forms, one that takes an Expression argument, and one that takes a String. In previous releases, these two returned inconsistent results

for items returning either an ObjectReference, DocumentReference or UserReference. For example, these two fragments returned different results:

```
// Assuming "ContentQueryRow row"
ObjectReference a = row.getValue(MasterMetadata.Expressions.IKB$ACL);   ①
ContentQueryItemObjectReference b =
(ContentQueryItemObjectReference)row.getValue("IKB$ACL");   ②
ObjectReference b2 = b.getObjectReference(); ③
```

① Used with an Expression, it returned the ObjectReference directly

② Used with a String, it returned a ContentQueryItem

③ To get to the actual objectReference, you have to inspect the item

When called from Java code, the above change will be detected by the compiler. However, the same problem is more probable and less visible from inside FreeMarker-templates:

```
Acl: ${row.getValue("IKB$ACL").objectReference.label} ①
Acl: ${row.getValue("IKB$ACL").label} ②
```

① This assumes the intermediate ContentQueryItem, and will no longer work

② This is the proper mechanism

To find such problems, search for lines containing ".objectReference", ".documentReference" and ".userReference" in the FreeMarker templates using ContentQueryRow.

3.8.2. Fix inconsistency with missing references

In earlier releases, the iKnowBase API would return inconsistent data for missing references. For example, an ACL-reference field which was empty (no ACL given) would sometimes return the NULL value, and sometimes an ObjectReference where all elements (id, guid, externalKey, label) were NULL.

3.8.3. Rename ContentServer configuration property

The configuration property `com.iknowbase.ContentServer.createResponseHeaders` has changed name to `com.iknowbase.ContentServer.createDocumentReferenceHeader`. This property is rarely used.

3.8.4. Remove default cluetip support

The ContentViewer is capable of rendering tooltip information on links it creates, by creating attributes for use with the cluetip library. This library is old, and does not represent current state-of-the-art for web solutions. The ContentViewer Portlet will no longer generate the required scripts to use cluetip. The old behavior can be restored by setting the configuration variable `com.iknowbase.contentViewer.clueTip` to one of the values `delayed` (recommended) or `traditional`.

3.9. Release 7.3

3.9.1. Desupport of iKnowBase Authentication Plugin for Oracle WebLogic

iKnowBase Authentication Plugin for Oracle WebLogic is no longer supported. Use WebLogic's own ReadOnlySQLAuthenticator Authentication Provider if you require "container" authentication.

3.9.2. iKnowBase Content Studio not deployed by default

The iKnowBase Content Studio now ships as an external plugin and is no longer deployed by default. This enables the projects to implement custom Content Studio versions.

NOTE	The document- and image picklists are part of the iKnowBase Content Studio plugin and will no be available unless the plugin is installed.

3.10. Release 7.2

3.10.1. Desupport of Oracle Database 10g

Oracle Database 10g is no longer supported for iKnowBase deployments. Oracle Database 11g is now minimum version.

3.10.2. Desupport of Oracle Secure Enterprise Search

Oracle Secure Enterprise Search is no longer supported for iKnowBase deployments.

3.11. Release 7.1

iKnowBase 7.1 is a maintenance release focusing on bug fixes and minor improvements. This release does not introduce any major changes in functionality.

3.12. Release 7.0

3.12.1. Desupport of Oracle Portal

iKnowBase no longer ships with portlets for Oracle Portal. The functionality supported by Oracle Portal can generally be implemented better and faster using the iKnowBase Page Engine.

3.12.2. Desupport of iKnowBase Add-in for Microsoft Office

From this release, the iKnowBase Add-in for Microsoft Office is no longer available. Existing customers should migrate to the WebDAV functionality which requires less setup and coding, and provides a better user experience.

Components (ContentViewers and SearchViewers) that use the "edit document" function to generate icons or links that use the add-in are automatically changed to the "edit using webdav"

function instead.

3.12.3. Desupport of Fatax Editor

The Fatax Editor is not available from this release onwards. The Fatax- integration was considered experimental, and no production installations will be affected by this.

3.12.4. Desupport of FTP-based access to documents

The WebDAV-server no longer supports FTP-based access to documents. No production installations will be affected by this.

3.12.5. Desupport of iKnowBase Process Services for Oracle BPEL PM

As all customers using Oracle BPEL have now upgraded to the newer Activiti-based business process management, the BPEL-specific components have been removed from the product.

3.12.6. Desupport of GlassFish application server

Deployment on GlassFish application server is no longer supported. GlassFish v3 has been deprecated and is excluded due to new infrastructure requirements for iKnowBase 7.0. Deployment on GlassFish v4 was previously supported, but not recommended due to various issues and support was eventually dropped in iKnowBase 6.6. We currently have no customers using GlassFsh 4 for iKnowBase in production.

Customers on GlassFish v3 must migrate to either iKnowBase Web Server or Oracle WebLogic.

3.12.7. WebDAV browser integration

The WebDAV browser integration has changed from using the SharePoint NPAPI plugin to Microsoft Office URI scheme protocol extensions. The user will no longer need to approve use of a browser plugin. The user is instead prompted for a new application launch approval, which may be remembered, when clicking on WebDAV links.

3.12.8. Uploading HTML-files

Previous versions had a hard time to differ between content written in such editors as TinyMce and HTML-files upload as files. After an upload, the file content was available in editors and not as a file link as expected. HTML-files uploaded from Forms will now be stored as files instead of being converted to html-content. To upload the content from a file to be used from a editor later, either use the service-api to store the file content with the attribute IKB$TEXT or cut and paste the html-file directly into an editor.

All other text files have been converted from CLOB to BLOB and are now stored in document.binary_indexed.

3.12.9. Content Studio now ships as a Java plugin

From iKnowBase 7.0 iKnowBase Content Studio ships as a Java plugin. During upgrade of an

existing installation, iKnowBase Content Studio classic pages and targets replaced by new Java-based components will be renamed to `/cs/deprecated/` and `/ext/cs/deprecated/`. A new transport set, which includes the image form and iKnowBase classic components necessary to run forms and statistics, is included in the distribution. When importing this transport set, the image form will be converted to a Java-based form. It can easily be toggled back to iKnowBase classic form for customers who require special configuration.

3.12.10. iKnowBase Process Studio no longer installed by default

iKnowBase Process Studio has been converted to an iKnowBase plugin and is no longer installed by default. See installation documentation.

3.13. Release 6.7

3.13.1. One java web application

iKnowBase ships only two applications:

- iknowbase-resources, which contains only static resources and may be served by a web server in front of the java application server.

- iknowbase-webapp, which contains all other modules:

    ◦ Batch (default enabled)

    ◦ Instant

    ◦ Fatax

    ◦ Studio (default enabled)

    ◦ Viewer (default enabled)

    ◦ WebDAV

    ◦ WebServices

The modules can be enabled/disabled, see Installation Guide.

All administration areas (/ikbStudio, /ikbBatch, <each application>/ikb$console) have now been merged to /ikb$console.

3.13.2. RequestModel.getFile() and .getFileMap()

The java-api, also used in groovy-scripts, provides access to uploaded files (technically parts of type "multipart/form-data") through the methods getFile() and getFileMap(). The return value from these methods used to expose certain spring-internals, namely the classes MultiValueMap and MultipartFile. These two methods have been rewritten, and they now use a standard java.util.Map and javax.servlet.http.Part instead.

We are not aware of any external uses of these methods, but if you do use them, a (trivial) rewrite is required.

3.13.3. ProcessServicesWS has been removed

The application ProcessServicesWS has been removed from the distribution. You may use previous versions of this web application if you require this functionality.

3.13.4. Default protection of /ikbStudio and /ikbBatch

With the new single-application deployment model, it is no longer possible to create iKnowBase pages matching /ikbStudio and /ikbBatch. Doing so was never a good form anyway, but is now forbidden.

3.13.5. Security

One application

As all modules are now available in one application, authentication between former applications like ikbStudio and ikbViewer are now one authentication. Of course, if you deploy several versions of the iknowbase-webapp application this means separate authentications.

"Simple authentication" for WebDAV and Instant

WebDAV and Instant is now part of the iknowbase-webapp and will use the following ordered approach for presenting the authentication challenge:

1. Header (default disabled)
2. Spnego (default disabled)
3. Basic (default enabled if non container mode)
4. Default

The first enabled module wins.

This means that you can have Form based login on all other areas without affecting WebDAV and Instant.

Login form changes

The included login form has been changed. If you have applied custom styling for the included iKnowBase 6.6 login form, you must update the custom styling settings.

Configuration

Form, Spnego and Header login option "realmName" used by XMLHttpRequest and WebDAV has been replaced by "realmName" in Basic configuration.

3.13.6. Plugin development

With the move to a single application for iKnowBase, we have done significant improvements as well as some breaking changes to the iKnowBase Development Toolkit.

You need to create a new plugin development workspace and manually migrate your plugins to the new build structure. See updated plugin development documentation.

Additional access requirements for plugin development:

- Access to the iKnowBase Artifactory repository

Spring Controller plugins support:

- Spring component scan on com.iknowbase.plugin removed.
- Bootstrapping your plugin using spring.factories and @Configuration is required.
- @Controller annotation should no longer be used. Use @RequestMapping annotation instead to signal that the Spring bean has @RequestMapping methods.

3.13.7. Instant

Javascript onError callback will now be called for all server errors. Previously this required custom error detection as not all server errors would result in onError callback.

3.14. Release 6.6

3.14.1. Require Java 7

iKnowBase now requires Java 7.0 or newer.

Java 7 has been shipping since July 2011, and Java 8 has been shipping since March 2014. Java 6 reached end-of-life in 2013, with the final public update in March that year.

All application servers currently supported by iKnowBase also support running under Java 7. However, Java 7 may require a newer operating system version than Java 6 does; check https://www.java.com/en/download/help/sysreq.xml for details.

3.14.2. GlassFish

Support for GlassFish 3 is now deprecated. From one of the next few releases, iKnowBase will require Oracle WebLogic or iKnowBase Quickstart.

Support for GlassFish 4 has been removed.

GlassFish authentication is no longer supported. Use iKnowBase supplied authentication modules.

3.14.3. Deprecate non-template presentation styles

FreeForm and tabular presentation styles has been around since the beginning of iKnowBase. These style types are a 100% data driven method where you define the layout by defining metadata from where the layout is generated. Later versions introduced FreeMarker as the preferred method.

FreeForm and Tabular will in future releases no longer be supported.

3.14.4. Authentication and authorization

Except for Oracle WebLogic server, the authentication setup has changed, with new default authentication methods and user repositories:

Server	Authentication method	User repository
iKnowBase Quickstart	Form	iKnowBase
Oracle GlassFish	Form	iKnowBase
Oracle WebLogic	Basic	WebLogic container

Previously, users would not be allowed access to iKnowBase unless they were granted the role IKB_USERS. From this release onwards, this requirement has been removed, and authorization will only rely on ACLs as specified in the application.

3.14.5. Various database changes

The tables LOG_SESSIONS, LOG_DIMENSIONS, MENU_DYN_PREFS and IMAGE_SIZES are no longer in use, and have all been dropped.

The Object types `DIMROWS`, `GENCODEVALUES`, `DIMPROPS`, `ATTRIBUTE_TYPE`, `ATTRIBPROPS`, `IKBACLTYPE` and `IKBGENCODES` are no longer in use, and have all been dropped.

The old support for NOARK is dropped from the components. No customers are using this functionality.

3.14.6. Removed portlets

The portlets "forgot password", "register user" and "Custom login" made for Oracle Portal long time ago have not been used by any customers, and have all been dropped.

3.14.7. Removed menu renderers

Four menu renderers not in use have been removed:

COL4	menu_dynamic	Vertikal - fire kolonner
YAH2	menu_dynamic	Yahoo - to kolonner
YAH3	menu_dynamic	Yahoo - tre kolonner
YAH4	menu_dynamic	Yahoo - fire kolonner

3.14.8. Banner style set

Banner style set used in Oracle Portal Viewers has been removed

3.14.9. iKnowBase Instant UserList

The one second delay for the UserList message `IKB.USERLIST.USERS` has been removed and this message will now be delivered immediately after the connection has been established.

3.14.10. ServiceAPI XML-support

Certain test scenarios have uncovered an internal error in the Oracle JDBC-driver stack while operating on XML-data from java or WebServices. There is no fix available, so you will need to test your application for this kind of error.

3.14.11. Removed functions from ActionPortlet

The actions "edit", "delete", "copy to another parent", "move to another parent" and "copy this + subdocs to a new parent" have been removed from the ActionPortlet. They have not been functional for a few versions, but were still available in the user interface.

3.14.12. Process Studio now ships as a Java plugin

From iKnowBase 6.6 iKnowBase Process Studio ships as a Java plugin, rather than iKnowBase components included in a transport set. During upgrade of an existing installation, all pages and targets in the iKnowBase Process Studio subsystem will be renamed to `/ps/deprecated/`.

3.15. Release 6.5

3.15.1. Activiti Explorer

The Activiti Explorer web application is removed from the iKnowBase distribution. The Activiti Modeler (BPMN web modeler) is part of the Activiti Explorer and will no longer be available. Use the Activiti Eclipse BPMN 2.0 Designer for process modeling.

3.16. Release 6.4.1

This is a critical maintenance release addressing database connection leaks.

3.16.1. Database connection leak in iKnowBase Batch

The PageEngine component in iKnowBase Batch fails to release acquired database connections and will leak one connection per execution.

The issue has been resolved in this release.

3.16.2. Database connection leak in iKnowBase Viewer

iKnowBase Viewer will suffer database connection leaks if an error occurs during database connection initialization.

The issue has been resolved in this release.

3.16.3. Documentation updates

Some documentation errors have been corrected in README.txt and SAMPLE.properties.

3.17. Release 6.4

3.17.1. Solr Configuration

In Solr Configuration you could define if body and description should be stored or not in SOLR. This is removed as options; use instead the SOLR schema.xml to define it on the attribute `body` and `description`. It resulted in unnecessary warnings in Solr console.

Abstract is also removed after TIKA was introduced. We cannot apply values to the field if the content should be extracted from the body. In earlier releases it was all done on the database.

3.17.2. Solr attributes

iKnowBase binary file attributes combined with binary content is not supported when indexing. SOLR/Tika supports only one binary file per document object.

3.17.3. Solr access from groovy

The old syntax for referring to a Solr search engine from a groovy script has changed; see the chapter on migration and compatibility for more information.

3.17.4. Oracle WebLogic 11g no longer supported

Oracle WebLogic 11g is no longer supported for running iKnowBase applications due to requirements for servlet 3.0.

3.17.5. Oracle WebLogic 12c supported

iKnowBase is supported on WebLogic 12c 12.1.1-3 application servers.

3.17.6. GlassFish 4 supported

iKnowBase is supported on GlassFish 4 application servers, but not recommended.

GlassFish 4 (build 89) does not correctly operate behind an SSL terminating reverse proxy and iKnowBase will be unable to determine that the request was originally HTTPS. This issue is reported in https://java.net/jira/browse/GLASSFISH-20842.

GlassFish 4 (build 89) also has problems with session replication in a clustered environment and as a result session failover does not work.

As we strongly recommend all sites to use https for all communication, we do not recommend running a production site on GlassFish 4.

3.17.7. iKnowBase Viewer is deployed to / by default

The iKnowBase Viewer application has traditionally been deployed to /ikbViewer. The application has supported context root /, but this is now set as the default context root.

Customers can still choose to deploy the application as/ikbViewer.

3.17.8. iKnowBase Quickstart configuration

The iKnowBase Quickstart configuration options have been standardized and changed. All previous options are present, but may have a new configuration name. See the provided SAMPLE.properties file.

3.17.9. Only one method in Sendmail will be maintained

Sendmail is used to send emails and have two different methods to build and send the email. The old method combines different functions like sendmail.begin_mail, sendmail.write_text and sendmail.end_mail. These functions will not be maintained, but kept for backward compability. The preferred method is sendmail.mail (with different signatures) and it will be the method that will be maintained in the future. It already have improved functionality like logging and better support for different character sets.

3.18. Release 6.3

Oracle OC4J is no longer supported.

3.19. Release 6.2

There is no known changed and deprecated functionality for this release.

3.20. Release 6.1

Key items for this release

- The embedded TinyMCE editor has been upgraded to release 3.5.2. Certain layout default has changed in this release of the editor. If you use custom TinyMCE profiles, you may want to verify that these still behave as expected.

- Ext JS has been migrated from Ext3 to Ext4.

3.21. Release 6.0

These are the key items for this release:

- All tooltip functions have been converted to use the new tooltip library "ClueTip". We operated with three different tooltip functions in former versions. They will all be converted to display title and description with cluetip from iKnowBase 6.0. The new library is much more flexible and can also use the content of a page as tooltip.

- The old Document Archive, delivered as a part of the Content Studio application, has been replaced with a new, modern rich web application.

- The tinyMCE 2.x plug-ins for the iKnowBase image and link pick lists are deprecated. If access to the pick lists are needed, existing tinyMCE 2.x profiles must be upgraded to the latest tinyMCE

version.

- New signature for tooltip functions.

The signature for tooltip functions has changed. In order to achieve maximum performance, the document title will be sent to the custom written function as a parameter. The new API signature is shown below.

```
FUNCTION <tooltip_function_name>
(
    p_document_id       IN NUMBER,
    p_page_url          IN VARCHAR2,
    p_back_url          IN VARCHAR2,
    p_reference_path    IN VARCHAR2,
    p_language_id       IN VARCHAR2,
    p_version_no        IN NUMBER,
    p_title             IN VARCHAR2
) RETURN VARCHAR2;
```

Chapter 4. Upgrading from earlier releases

This chapter lists areas where you will need to change your application or infrastructure to support the same functionality as before, or to start using new functionality.

Read this chapter to find out which areas of your solution that may need rework, or where rework will provide better solutions. Start with the chapter describing the iKnowBase release you are upgrading from, and work your way through all the chapters regarding newer releases.

Remember that the installation guide is upgraded for every version. Please read the installation guide before starting your upgrade process.

4.1. Upgrade from iKnowBase 8.0

4.1.1. JDK 11

JDK 11 is now the minimum required version to run iKnowBase. Update using any of the OpenJDK 11 distributions.

IMPORTANT	Oracle's JDK distribution is NOT free. Choose between the free OpenJDK 11 distributions or commercial supported JDK 11 (LTS) distributions.

Updated Locale Data to Unicode CLDR

With the JDK upgrade the locale data will now by default rely on CLDR - Unicode Common Locale Data Repository. Depending on usage and configuration in the customer specific solution this may affect:

- **Locale-specific patterns for formatting and parsing**: dates, times, timezones, numbers and currency values, measurement units,…

- **Translations of names**: languages, scripts, countries and regions, currencies, eras, months, weekdays, day periods, time zones, cities, and time units, emoji characters and sequences (and search keywords),…

- **Language & script information**: characters used; plural cases; gender of lists; capitalization; rules for sorting & searching; writing direction; transliteration rules; rules for spelling out numbers; rules for segmenting text into graphemes, words, and sentences; keyboard layouts…

- **Country information**: language usage, currency information, calendar preference, week conventions,…

- **Validity**: Definitions, aliases, and validity information for Unicode locales, languages, scripts, regions, and extensions,…

The default setting for locale providers is `java.locale.providers=CLDR,COMPAT,SPI`. To rely on the previous default used in JDK8 and earlier, you may set the system property to `java.locale.providers=COMPAT,CLDR,SPI`.

UTF-8 Properties Files

With JDK 9+ the default encoding when loading property files have changed from ISO-8859-1 to UTF-8, see UTF-8 Properties Files.

Most property files will not be affected, however if there is an issue, consider the following options:

- Convert the properties file into UTF-8 encoding. (Recommended)
- Specify the runtime system property for the properties file's encoding, as in this example: `java.util.PropertyResourceBundle.encoding=ISO-8859-1`

Some plugins have used a specific UTF8Handler when loading resource bundles. This can now be removed.

4.1.2. Configuration changes

Changes for Spring Boot 2.3 and 2.4 and all their dependencies applies, and are documented at https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-2.3.0-Configuration-Changelog and https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-2.4.0-Configuration-Changelog

Especially note that the commonly used `server.use-forward-headers=true` has changed to `server.forward-headers-strategy` and most often the value `native`.

4.1.3. Spring HATEOAS breaking changes

Run https://github.com/spring-projects/spring-hateoas/blob/master/etc/migrate-to-1.0.sh

4.1.4. Instant HTTP API moved

The Instant HTTP API (/ikb$service) has been moved.

From	To
/ikbInstant/ikb$service	/ikb$instant/service
/ikbInstant/private/ikb$service	/ikb$instant/private/service

> **NOTE** The main asynchronous endpoint is unchanged and present at /ikbInstant.

4.1.5. Default JDBC socket read timeout

The default JDBC socket read timeout has been changed from no value (never time out) to 10 minutes. If you have long running queries that exceeds this timeout, set `spring.datasource.hikari.dataSourceProperties.oracle.jdbc.ReadTimeout`.

4.1.6. iKnowBase Plugin Development changes

This release has major library and JDK upgrades that will require some adjustments in your iKnowBase plugins.

As always, merge the contents from the updated plugin starter project with your plugin project.

Dependencies

Review the project's explicit dependencies vs what's included with iKnowBase.

Selected modules previously included in the JDK has been removed from the JDK itself. iKnowBase provides dependencies for

- JavaBeans Activation Framework

- Java Transaction API

- JAXB

- Commons Annotation

iKnowBase does not provide dependency for:

- JAX-WS (SOAP XML Web Services)

- CORBA

If you rely on any of the removed dependencies in your plugins you'll need to add an explicit dependency.

Spring changes

Changes for Spring Boot 2.3 and 2.4 and all their dependencies applies, and are documented at https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-2.3-Release-Notes and https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-2.4-Release-Notes . Few of these apply to plugins, but note the change for `@ActiveProfiles` where you can no longer supply a comma-separated string of multiple profiles, they must be an array.

4.1.7. Datasource monitoring using Java Simon removed

Support for `com.iknowbase.datasource.simonWrapper=true` has been removed. Use normal metrics support for the datasource.

4.1.8. Oracle 19c: Oracle Multimedia is removed

iKnowBase 8.1 supports the Oracle 19c database, where Oracle Multimedia is no longer available. If the database is upgraded to 19c, any transformations using Oracle Multimedia will not work and must be replaced. The transformations are listed at `/ikb$console/development/advanced/transformation`. All transformations must be inspected, and any transformation instruction prefixed with `ordimg:` must be changed. See *Content Transformation Service* in the *Development Guide* for alternatives. Also ensure `has_oracle_ordsys` is not set to `true` in the table `IKB_INSTALLATION_PROPERTIES`. If it is changed away from `true`, run `./iknowbase.sh createGlobalPrefs` afterwards.

4.1.9. Java plugins: JDBC from ContentServicesClient is now initialized as current user

ContentServicesClient.getJdbcOperations() should according to its documentation return a

connection initialized as the current user. It did not, but now it does. For plugins, this means:

- It will potentially run as a different user.

- The initialization might cause it to run a bit slower, which is unnecessary if initialization is not really needed.

- It becomes important to close the manually created ContentServicesClient (it always is if running a query, but was not important if the client was just used to fetch the JDBC object).

Validate any use, and if needed, change to ContentServicesEngine.getJdbcOperations(), which is a non-initialized JDBC.

4.1.10. Switch user no longer support GET requests

HTTP requests to invoke the Switch user functionality can no longer use GET requests, it must be POST.

4.1.11. Rename of config property for log directory

The config property for setting log directory has changed from `logging.path` to `logging.file.path`. Change it if it is in use, e.g. in application.properties.

4.2. Upgrade from iKnowBase 7.7.x

4.2.1. Review form definitions

Form definitions are now more strictly validated. Form definitions should be reviewed. When upgrading consult with iKnowBase Product Development and see report at /ikb$console/development/database/report_iknowbase/inconsistency.

4.2.2. Add new details ACL for iKnowBase Content Studio

iKnowBase content Studio has a new document details view that displays all attributes for the selected document. This new view requires ACL with externalKey `CS_DETAILS_ACCESS`.

Add the ACL manually or merge the included transport set for iKnowBase `etc/EXP-IKB_MASTER_<release>-B46F6A1ED4ABECCFE040000A180057BE-iKnowBase_Data.dmp`.

If you add manually, the included Access Control List is defined as:

Table 1. CS_DETAILS_ACCESS

Key	Value
Label (n)	Tilgangsgruppe for Content Studio superbrukere
Description (n)	Tilgangsgruppe for Content Studio superbrukere som skal se alle attributter på dokumentene. Kun administratorer og superbrukere må legges til.

Key	Value
Label (us)	Access group for Content Studio super users
Description (us)	Access group for Content Studio super users that should see all attributes when viewing their documents. This should only be administrators and superusers.
External key	CS_DETAILS_ACCESS
Visible	No
Grants	Group "IKB_ADMINISTRATORS" with privilege "Read".

If you merge the included transport set:

1. If you plan to continue using the Classic image form (id=81) after upgrade (default is now a Java based image form):

   a. Before import of transport set: Make a copy of the image form (id=81)

   b. After import of transport set: Convert the image form to an iKnowBase classic form (click on the button in the form edit panel in Development Studio) and reapply custom changes

2. If you have customized the quicklink "CS Publish links" used in Content Studio pages and picklists:

   a. Before import of transport set: Backup the quicklink "CS Publish links"

   b. After import of transport set: Reapply any custom changes to the quicklink "CS Publish links".

3. Import transport set

   a. Upload the file "etc/EXP-IKB_MASTER_<release>-B46F6A1ED4ABECCFE040000A180057BE-iKnowBase_Data.dmp" (ikb$console → Development → Advanced → Import → Upload a new file).

   b. Make no changes to the settings and run a pre-check.

   c. Verify the result, and if ok, go back to the edit tab and continue with the "Merge to iKnowBase" action.

4.2.3. Migrate identity federation settings for "social authentication"

Generic support for OAuth2 (and OpenID Connect) identity federation enables sign in support for a wide range of external identity providers. We now rely upon Spring Security's support for OAuth2.

1. If you've previously enabled "social authentication", you'll need to change the following configuration settings:

From	To
com.iknowbase.spring.security.social.PROVIDERID.clientId	spring.security.oauth2.client.registration.PROVIDERID.clientId

From	To
com.iknowbase.spring.security.social.PROVIDERID.clientSecret	spring.security.oauth2.client.registration.PROVIDERID.clientSecret
com.iknowbase.spring.security.social.PROVIDERID.enabled	DELETE
com.iknowbase.spring.security.social.enabled	com.iknowbase.spring.security.oauth2.enabled
com.iknowbase.spring.security.social.encryptionPassword	DELETE
com.iknowbase.spring.security.social.encryptionSalt	DELETE
com.iknowbase.spring.security.social.socialSignupURL	com.iknowbase.spring.security.form.signupURL

(Where PROVIDERID is 'google', 'facebook', etc.)

2. Change the allowed redirect URIs in the application registration you have with the external identity provider (represented by the `···.clientId`):

From	To
/ikb$auth/PROVIDERID	/ikb$auth/oauth2/code/PROVIDERID

3. If you use a custom login page, change the form action:

From	To
/ikb$auth/PROVIDERID/authenticate	/ikb$auth/oauth2/authorization/PROVIDERID?action=ikb$auth

Upgrade Gradle configuration

Major upgrade of Gradle to 5.x require some changes.

1. Replace dependency configuration `compile` with `api` or `implementation`.

   a. Use `api` if you want the dependencies to be transitive. This corresponds to the previous `compile` configuration.

   b. Use `implementation` if you don't want the dependencies to be transitive.

Upgrade source

Major upgrade of java libraries, with the most notable being:

Library	From	To
Spring Boot	1.5.x	2.1.x
Spring Framework	4.3.x	5.1.x

| Spring Security | 4.2.x | 5.1.x |
| Spring Data REST | 2.6.x | 3.1.x |

The upgrade requires that you review, update and rebuild your plugins.

1. Review changelogs and migration guides for Spring Boot:

   a. Spring Boot 2.0 Migration Guide

   b. Spring Boot 2.1 Release Notes.

2. Spring Data REST for iKnowBase

   The Spring Data REST upgrade brings new method signatures to the custom iKnowBase repository implementation. Update to match the new signatures and resolve compile error and deprecation warnings.

*Table 2. *RepositoryImpl*

From	To
public <S extends T> Iterable<S> save(Iterable<S> entities)	public <S extends T> Iterable<S> saveAll(Iterable<S> entities)
public T findOne(ID id)	public Optional<T> findById(ID id)
public boolean exists(ID id)	public boolean existsById(ID id)
public Iterable<T> findAll(Iterable<ID> ids)	public Iterable<T> findAllById(Iterable<ID> ids)
public void delete(ID id)	public void deleteById(ID id)
public void delete(Iterable<? extends T> entities)	public void deleteAll(Iterable<? extends T> entities)

Table 3. Other notable changes

From	To
public PageRequest(int page, int size, Sort sort)	public static PageRequest of(int page, int size, Sort sort)

   In addition, the ID is no longer required to extend java.io.Serializable.

3. Spring REST Docs are more strict and you may be required to update your tests.

4. `BootEmbeddedTestSetup` for full integration testing is now available from iKnowBase and you may replace your local `BootEmbeddedTestSetup` (may be named differently) in favor of the provided one.

4.2.4. Review duplicate mappings in user repository

New unique constraints on `IKB_USER.DOCUMENT_GUID` and `IKB_USER.DIMENSION_GUID` are now added during `upgradeAll` to resolve user synchronization issues where two accounts could map to the same person card/dimension.

The unique constraint on `IKB_USER.DN` has been removed, since the often stored value (leftmost RDN or CN) in this field is not required to be unique.

Review upgrade log and Repository Check report at /ikb$console/development/database/report_iknowbase/inconsistency#/ and make sure all expected constraints are present.

4.2.5. LDAP sync will no longer fall back to DN lookup

The fallback to `IKB_USER.DN` lookup if the user was not found by username during sync has been removed (#885). If you rely on this particular behaviour (for example support for changing username) then you'll need to move this logic into the pre/post-procedures.

4.3. Upgrade from iKnowBase 7.6.x

4.3.1. Password algorithm in iKnowBase user repository has changed

Passwords stored in iKnowBase user repository will now by default use BCrypt. It still supports the old hashing algorithm and can verify both old and new style passwords, but it will change to BCrypt whenever the password is used during authentication or set using either the admin console, the setup application or the user activation page through activation token.

If you rely on integrations that use `ikb_authentication` package directly to verify password, you should consider migrating this functionality to java based BCrypt. If not, you may still continue using the old hashing algorith by setting the configuration property `com.iknowbase.spring.security.ikbauth.passwordHandler=LEGACY`.

You may disable automatic password migration on authentication by setting the configuration property `com.iknowbase.spring.security.ikbauth.legacyPasswordMigrationOnAuthenticationEnabled=false`.

4.3.2. Spring Security firewall settings

Spring Security's firewall settings are now more strict by default to better protect against frequent sources of security exploits.

If these new security rules block a request, they will normally log `The request was rejected because the URL contained a potentially malicious String⋯...` These types of requests should normally be avoided. Contact iKnowBase Product Development Team if you need to allow one or more of these common sources of security exploits.

4.4. Upgrade from iKnowBase 7.5.x

4.4.1. Changes to ikb_global_prefs-package

The mechanism for customizing the `ikb_global_prefs` database package has changed. **No manual steps are required** during upgrade, however please note the new mechanisms for changing these settings:

From iKnowBase 7.6, the `createGlobalPrefs` (also executed via `configureUser`) command will load custom values from the `ikb_installation_properties` table using instance_qualifier 'ikb_global_prefs', and use these when generating the package. The new mechanism also allows for adding custom properties, if desired.

To preserve your existing configuration, iKnowBase will automatically during the upgrade process add any non-default options you already have set in IKB_GLOBAL_PREFS to the `ikb_installation_properties` table.

4.4.2. URL encoding changes

URL encoding in iKnowBase has been updated to improve security and provide a more standardized experience. While most changes pose no risk to existing applications, the removal of iKnowBase's custom back url encoding in iKnowBase Classic might require updates in customer specific code.

Example:

- Start on page: `/example?p1=v1&p2=v2`
- Access a form from the current page (note the URL param `p_form_back_url`)
  - Old form URL: `/form?p_style_id=123456&p_form_back_url=/example?p1=v1^p2=v2`
  - New form URL: `/form?p_style_id=123456&p_form_back_url=%2Fexample%3Fp1%3Dv1%26p2%3Dv2`
- Look for custom code specifically handling URL params delimited with `^`.

4.4.3. WebDAV edit links in Content Studio

WebDAV edit links will by default only be available if the instance has WebDAV enabled. If you have deployed the WebDAV service to a different instance, you may explicitly enable the WebDAV links by setting configuration property `com.iknowbase.plugin.ikbcontentstudio.enableWebDavEditActions=true`.

Forms

To simplify handling List attributes, iKnowBase would previously ensure that all form bean properties of type `java.util.List` would be initialized to an empty list and never be null. This behaviour should have been limited to managed properties annotated with `@AttributeMapping`

From iKnowBase 7.6 backing form bean properties of type `java.util.List` without `@AttributeMapping` will no longer be initialized to an empty List. Check your existing form beans and ensure you don't rely on iKnowBase to initialize these properties.

4.5. Upgrade from iKnowBase 7.4.x

4.5.1. Resource configuration

The default configured embedded static resource handlers for /ressurs/** and /plugin-resources/** using configuration property `com.iknowbase.server.resource.embedded.handlers[index].\*` have

been grouped into a single handler for /** and serves resources from these locations:

- classpath:/META-INF/resources/
- classpath:/resources/
- classpath:/static/
- classpath:/public/

If you've **changed** configuration for a specific **embedded** resource handler you need to

1. See if the new configuration meets your needs, or

2. Change settings, such as caching, for `com.iknowbase.server.resource.embedded.handlers[0]`, or

3. Define a custom resource handler, which takes precedence over the embedded resource handler.

Spring Boot upgraded from 1.4.x to 1.5.x

iKnowBase has been upgraded from Spring Boot 1.4.4 to 1.5.3 and the Spring Boot wiki (https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-1.5-Release-Notes) describes relevant changes.

In particular if you use @ConfigurationProperties validation for your plugins, this change applies:

```
If you have @ConfigurationProperties classes that use JSR-303 constraint annotations, you
should now additionally annotate them with @Validated. Existing validation will currently
continue to work, however, a warning will be logged. In the future, classes without @Validated
will not be validated at all.
```

4.6. Upgrade from iKnowBase 7.3.x

4.6.1. Application configuration

Log configuration

If you rely on custom log configuration files (in Log4j v1.x format) you must upgrade these configuration files to Log4j 2.x format.

Note that log file names have changed from `log4j-<profile>.properties` to `log4j2-<profile>.properties`. See application.properties.SAMPLE for updated names.

Datasource configuration

Some properties have changed namespace due to upgrade of Spring Boot platform:

From	To
`spring.datasource.<tuning options>`	`spring.datasource.hikari.<tuning options>`
`multipart.<all>`	`spring.http.multipart.<all>`

See updated application.properties.SAMPLE.

Web Services configuration

Custom configuration option for the Web Services path (/ws) has changed from `com.iknowbase.ws.endpointRoot` to Spring Boot's default `spring.webservices.path`.

WebDAV configuration

If you use custom WebDAV file server in iKnowBase, you must update the new configuration option `com.iknowbase.webdav.pathExpr` to match the paths the WebDAV server should intercept. By default it will only intercept iKnowBase WebDAV Content server at `/ikb$content`.

4.6.2. Enable new REST API for user repository

A new plugin `iknowbase-rest-userrepository` is available in the distribution. Deploy it as a standard plugin.

The new REST service requires an Access Control List with external key `REST_REPOSITORY_ACCESS` to be present.

ACL privileges:

- READ privilege for list, read and query
- MODIFY privilege for create and update
- DELETE privilege for delete

You may change the ACL used by configuring `com.iknowbase.rest.*`

- `com.iknowbase.rest.custom.aclApiAcl` for Acl repository
- `com.iknowbase.rest.custom.aclMemberApiAcl` for AclMember repository
- `com.iknowbase.rest.custom.groupApiAcl` for Group repository
- `com.iknowbase.rest.custom.userApiAcl` for User repository

See detailed documentation available at /ressurs/iknowbase/doc/html/rest/ikb/index.html once the plugin has been deployed.

4.6.3. iKnowBase Plugin Development changes

Spring Boot upgraded from 1.3.8 to 1.4.4

iKnowBase has been upgraded from Spring Boot 1.3.8 to 1.4.4 and the Spring Boot wiki (https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-1.4-Release-Notes) describes relevant changes.

In particular iKnowBase will now provide these additional test dependencies.

- com.jayway.jsonpath:json-path
- com.jayway.jsonpath:json-path-assert
- org.assertj:assertj-core

- org.skyscreamer:jsonassert

If you've included these in your iKnowBase Java SDK plugins, make sure you remove these explicit dependencies to avoid possible library collisions.

4.7. Upgrade from iKnowBase 7.2.x

4.7.1. WebDAV API - Lock Manager Events

WebDAV Lock Manager Events have been moved from non-API to official iKnowBase API area. If you have consumed these events in iKnowBase Plugins on earlier versions you need to update package locations for these events.

4.7.2. iKnowBase Authentication Plugin for Oracle WebLogic

iKnowBase Authentication Plugin for Oracle WebLogic is no longer supported. Use WebLogic's own ReadOnlySQLAuthenticator Authentication Provider if you require "container" authentication. See Installation Guide for configuration details.

4.7.3. Deploy and upgrade iKnowBase Content Studio

Consider if your site needs iKnowBase Content Studio. Note that iKnowBase Content Studio includes the document and image picklists which are used for publication. If you don't need iKnowBase Content Studio, you can skip this step.

iKnowBase Content Studio ships as an external plugin which must be deployed. To deploy iKnowBase Content Studio, follow the instructions in the *Installation Guide*.

To upgrade iKnowBase Content Studio, please do as follows:

1. If you plan to continue using the Classic image form (id=81) after upgrade (default is now a Java based image form):

   a. Before import of transport set: Make a copy of the image form (id=81)

   b. After import of transport set: Convert the image form to an iKnowBase classic form (click on the button in the form edit panel in Development Studio) and reapply custom changes

2. If you have customized the quicklink "CS Publish links" used in Content Studio pages and picklists:

   a. Before import of transport set: Backup the quicklink "CS Publish links"

   b. After import of transport set: Reapply any custom changes to the quicklink "CS Publish links".

3. Import transport set

   a. Upload the file "etc/EXP-IKB_MASTER_<release>-B46F6A1ED4ABECCFE040000A180057BE-iKnowBase_Data.dmp" (ikb$console → Development → Advanced → Import → Upload a new file).

   b. Make no changes to the settings and run a pre-check.

c. Verify the result, and if ok, go back to the edit tab and continue with the "Merge to iKnowBase" action.

4.7.4. iKnowBase Plugin Development changes

`war` plugins are no longer supported and all plugins must now use the regular `jar` setup. The `jar` projects have been enhanced with

- support for copying your additional libraries to build output directory

- support for generating a distribution zip file with your plugin code as .jar as well ass all additional dependencies.

As always, merge the contents from the updated plugin starter project with your plugin project.

See Development Guide > iKnowBase Development Toolkit for details.

4.8. Upgrade from iKnowBase 7.1.x

4.8.1. iKnowBase application configuration

The iKnowBase application is now based on Spring Boot. This change brings MAJOR changes and enhancements to configuration of the embedded iKnowBase Web Server.

Your existing configuration contained in the properties file (e.g. `production.properties` or `iknowbase.properties`) MUST be migrated to the new configuration format.

1. Copy the provided `<distribution>/etc/application.properties.SAMPLE` as `application.properties`. Please note that `application.properties` is by default the required name of this file.

2. Migrate your settings from the old format to the new format.

While the new configuration format should be quite self-explanatory, you should note that:

- The `System.` prefix was previously used to set a System property, which was used to configure the iKnowBase application. This prefix is no longer in use and you may migrate your settings from `System.foo.bar.baz` to just `foo.bar.baz`.

- Embedded (Jetty) web server: While Spring Boot covers most settings under `server.*`, iKnowBase provides extra options under `com.iknowbase.server.\*`.

- The static resources application `iknowbase-resources` is now part of the main application available at /ressurs.

- Custom static resources directories must now be specified using `com.iknowbase.server.resource.custom.handlers[<index>]`.

Advanced: The configuration options that are available and how they can be set are now based on Spring Boot. Please see [boot-features-external-config](#) and [common-application-properties](#) for for more details.

4.8.2. iKnowBase application commands

With the move to Spring Boot, we no longer support specifying the properties file as the first parameter to `iknowbase.sh`/`IKNOWBASE.BAT`. The property file `application.properties` is the default and recommended name.

Example:

- OLD: ./iknowbase.sh production.properties upgradeAll
- NEW: ./iknowbase.sh upgradeAll

4.8.3. iKnowBase application logging

iKnowBase will now by default rotate logfiles on a daily basis. The application logs will log to `iknowbase.log` and change to `iknowbase.YYYY_MM_DD.log` after log rotation.

You may still provide your own log4j configuration file or even run without any (just standard out logging).

iKnowBase Web Server only:

The access logs will log directly to to `iknowbase.request.YYYY_MM_DD.log`. Access logging will now log using NCSA format and supports various configurable options.

4.8.4. Static resources: Location and configuration

The static resources application `iknowbase-resources` is now part of the main application available at /ressurs.

See application.properties.SAMPLE for configuration options for the embedded resources as well as any custom resource areas you want to serve using the iKnowBase application.

Note for custom context root deployments only

The resource path is now relative to the context root for the main application. If you deploy to a custom context root, like '/example', the static resource area will follow to '/example/ressurs' etc.

You must also ensure that the infrastructure (reverse proxy) maps the default paths to the context root paths.

- '/ressurs' to '/example/ressurs'
- '/plugin-resources' to '/example/plugin-resources'

4.8.5. Static resources: Cache headers

iKnowBase will now send cache headers for static resources (default areas: /ressurs and /plugin-resources).

Review any existing settings for caching of static resources. If you've already configured an intermediate server such as Apache httpd with cache headers, consider removing these settings

and adjust the iKnowBase configuration instead.

See Development Guide > Performance and application.properties.SAMPLE for more details.

4.8.6. Static resources: Versioned resource resolution

iKnowBase supports versioned address based on content for static resources. These resources will by default be served with long cache max-age for browser and any intermediate cache capable servers since any change to these resources will generate a new address for the changed resources.

To take full advantage of this new capability, you'll need to update your presentationt templates. See Development Guide > Performance and application.properties.SAMPLE for details.

4.8.7. Static resources: In-memory caching

All static resources, such as the embedded resources available at /ressurs and /plugin-resources, are cached in-memory (non replicated) in the iKnowBase application for performance reasons.

This means that any change to these resources, or any other custom resource locations you define, require that you clear the cache (name prefix "serverResourceCache") either by using ikb$console or by restarting the application.

If you prefer to be able to change the custom resources without clearing the cache you may

- set the custom handler group's `defaultCacheResourceResolutionEnabled` to false to change the group's default setting, or
- set the specific resource handler's `cacheResourceResolution` to false and disable the in-memory cache for that particular handler.

Please note that disabling in-memory cache reduces performance to about 1/3 compared to in-memory cached resources (still quite fast, but not THAT fast).

See application.properties.SAMPLE for details.

4.8.8. Compression

Compression og text content is highly recommended to reduce bandwidth usage and transfer time from server to client.

The iKnowBase WebServer will by default compress all text content (html, text, css, js, xml) if the client signals that it supports compression using @Accept-Encoding@ header. All modern browsers will send this header by default.

If you've already configured compression in an intermediate server, such as Apache httpd, you may consider disabling the compression support in Apache (or at least one of them) to keep the infrastructure configuration and functionality clean.

See application.properties.SAMPLE for configuration options.

4.8.9. HTTP Sessions

Default session handling is now using database persisted sessions and the sessions are fully managed by the application (not the application server).

The change also means that session cleanup due to session inactivity (timeout) is a global cleanup. If you have more than one iKnowBase application running against the same database repository, the timeout should be set to the same value for all. If you require separate session timeout settings for different sites, discuss the requirement, configuration possibilities and consequences with the iKnowBase Product Development team.

While the new database persisted sessions is the recommended approach, it is still possible to use in-memory or the server's native in memory session handling, see installation guide and application.properties.SAMPLE for details.

HTTP Session Attributes

The new default handling of data stored as session attribute requires that if you modify an existing session attribute, you must call session.setAttribute(key, value) to persist the updated object. Review all code calling `session.getAttribute` or `getSessionAttribute` and make sure modifications are persisted. `setAttribute` on session will mark the attribute as changed.

Background: Session attribute handling in earlier versions of iKnowBase had the same requirement to be able to replicate session attributes (replication was available for WebLogic and GlassFish), but you would be able to modify objects without an explicit setAttribute, however the attribute would not have been replicated. iKnowBase Web Server did not support session replication earlier, but you would be able to store a modified attribute without explicit calling setAttribute.

4.8.10. Content Transformation Service

The new Content Transformation service leverages preexisting support from existing Image Editor, File Converter, Oracle Multimedia and Oracle Text.

Image Editor, Oracle Multimedia and Oracle Text are by default enabled without any configuration requirements.

FileConverter

FileConverter was previously only executed by the Batch Server, but can now be triggered via both Content Server (Viewer) and Transformation Server (Batch).

If you've previously installed FileConverter and you want to use FileConverter via Content Server (HTTP to /Content or /private/content) you must make sure that FileConverter is installed on all servers running the Content Server or the service will not be available.

If you only use FileConverter through the PLSQL API you don't need to change anything.

With the exception of `com.iknowbase.batch.fileConverter.outsideInDirectory`, all `com.iknowbase.batch.fileConverter` configuration options have been removed. File Converter for Batch is now handled by the Transformation Server, which has similar AQ configuration options.

PLSQL API `batch_fileconvert_client` is still available for backwards compatibility. It uses the new PLSQL API `ikb_transformation_service`. You should consider changing to the new PLSQL API in custom code.

ImageEditor

All `com.iknowbase.batch.imageEditor` configuration options have been removed. File Converter for Batch is now handled by the Transformation Server, which has similar AQ configuration options.

PLSQL API `batch_fileconvert_client` is still available for backwards compatibility. It uses the new PLSQL API `ikb_transformation_service`. You should consider changing to the new PLSQL API in custom code.

4.8.11. Content Transformation Usage

By introducing the new content transformation service from iKnowBase 7.2, image variants will no longer be populated as attributes when an image is stored. Instead, image variants will be transformed on-the-fly and cached for later use. The upgrade script will automatically convert instances of /attr=<attribute value guid> to /transformation=<transformation type>. This applies to stored HTML-content (in DOCUMENT and DOCUMENT_ATTRIBUTE LOB-columns). The presentation style will also be migrated to use transformation instead of Image variant and the special functions `View as PDF/HTML/TEXT`.

Still, there might be traces of /attr= in on-site code that need to be fixed.

- Check your custom PL/SQL for instances of /attr=. Check the page /ikb$console/development/database/report_iknowbase/upgrade. The code is normally a select against document_attribute where the variant was stored.

- Check your client code by searching ikb$console for instances of /attr=

- Be aware that transformation functions in a presentation style always will create a transformation. If the variant was non-existing in prior releases, the original images was displayed.

In PL/SQL code, skip the join against document_attribute and use a transformation-clause instead. e.g. `select '/Content/' || da.document_id || '/attr='|| da.object_guid || '/' || d.filename url from document d, document_attribute da` .... can be replaced with `select '/Content/' || d.document_id || '/transformation='|| <name of the transformation> || '/' || d.filename url from document d`···.

4.8.12. LOBS stored as SECUREFILE

SecureFiles was first introduced in Oracle Database 11g. Write performance using SecureFiles is enhanced by a new cache that buffers writes before writing to disk. Advanced features such as compression and deduplication reduce disk I/Os further at the cost of a slight CPU overhead. Intelligent pre-fetching especially during streaming reads offer better performance during reads. SecureFiles uses an advanced space management routine that is optimized for large, contiguous I/Os. In addition, there are several innovations with the wire protocol, locking algorithms etc. that make SecureFiles far more scalable than LOBs or file systems. iKnowBase 7.2 is the first release with SECUREFILE as its default LOB storage mechanism.

- All LOB objects in a new installation will always use SECUREFILE.

- Custom LOB objects created on-site should be created with a SECUREFILE instruction. It can either be done by a database initializion parameter (`ALTER SYSTEM SET db_securefile = 'ALWAYS'`) or in the create-statement (`create table ⋯ (lob_col BLOB) LOB (ERR_MSG) STORE AS SECUREFILE`).

- Upgrade from prior releases require some manual steps to move DOCUMENT LOB data from BASICFILE to SECUREFILE.

  ◦ Make sure you have sufficient disk space (as least as the total size of the tables DOCUMENT, DOCUMENT_ATTRIBUTE, VERSIONED_DOCUMENT and VERSIONED_DOCUMENT_ATTRIBUTE).

    ▪ Check the page /ikb$console/development/database/report_iknowbase/upgrade. It can report disk usage for these tables.

  ◦ Make sure to back up the tables DOCUMENT, DOCUMENT_ATTRIBUTE, VERSIONED_DOCUMENT and VERSIONED_DOCUMENT_ATTRIBUTE.

  ◦ If running Oracle Enterprise Edition, do the following operations:

    ▪ Grant permissions: ./iknowbase.sh dbscriptAsSys common/securefile_grant.sql <logfile>

    ▪ Create interim tables: ./iknowbase.sh dbscript common/securefile_tables.sql <logfile>

    ▪ Move from BASICFILE to SECUREFILE: ./iknowbase.sh dbscript common/securefile_ee.sql <logfile>

    ▪ Verify the error log before you continue. Either check the ikb$console page /ikb$console/development/database/report_iknowbase/sql_script or run the query `select instance, timestamp, to_char(err_msg) from ikb_error_tab where instance like 'redef_securefile_%' order by error_id`. If all columns are already converted to securefile, there is no need to recreate the Oracle Text index.

    ▪ Create the Oracle Text index: Log off the session, log on again with iKnowBase schema owner and execute `begin ikb_adm_ctx.create_index; ikb_adm_ctx.start_indexing; end;`.

    ▪ Revoke the permissions : ./iknowbase.sh dbscriptAsSys common/securefile_revoke.sql <logfile>

  ◦ If running Oracle Standard Edition, do the following operations:

    ▪ Move from BASICFILE to SECUREFILE: ./iknowbase.sh dbscript common/securefile_se.sql <logfile>

    ▪ Verify the error log before you continue. Either check the ikb$console page /ikb$console/development/database/report_iknowbase/sql_script or run the query `select instance, timestamp, to_char(err_msg) from ikb_error_tab where instance like 'redef_securefile_%' order by error_id`. If all columns already is converted to securefile, there is no need to recreate the Oracle Text index.

    ▪ Create the Oracle Text index: Log off the session, log on again with iKnowBase schema owner and execute `begin ikb_adm_ctx.create_index; ikb_adm_ctx.start_indexing; end;`.

4.8.13. Removed end point

The unofficial endpoint `/cs/<externalkey>/valuelist.json` is no longer supported. Verify that this

end point is not in use on your site by performing a search in Development Studio.

4.8.14. Development Toolkit for Java

The iKnowBase Development Toolkit for Java has been simplified and you may now choose between:

- sample-starter-singleproject
- sample-starter-multiproject

The single project setup is recommended if you want to share this plugin with other projects/teams/customers.

The multi project setup is recommended if you develop a set of plugins for a specific customer and you don't intend to share these plugins.

Developers are strongly encouraged to re-read the updated iKnowBase Development Toolkit section in the Development Guide.

Upgrade steps:

1. Update your gradle files to match the setup used in one the sample-starter projects.
   - gradle.properties (artifactory*-variables are no longer used and may be removed).
   - gradle/wrapper/gradle-wrapper.properties.
   - build.gradle (Greatly simplified through use of new iKnowBase Gradle script plugins).
2. Re-import / refresh your gradle project in IntelliJ.
3. Update all `src/main/resources/META-INF/spring.factories` files.
   - OLD: com.iknowbase.api.server.SpringModule=`Your.Spring.Module`.
   - NEW:
     org.springframework.boot.autoconfigure.EnableAutoConfiguration=`Your.Spring.Module`.
4. Update application configuration (filename and contents).
   - OLD: iknowbase.properties
   - NEW: application.properties (Copy application.properties.template from sample-starter-*)
5. Update run configuration in IntelliJ.
   - OLD: com.iknowbase.jetty.util.QuickstartFactory ("Application" run configuration type)
   - NEW: com.iknowbase.BootEmbeddedApplication ("Spring Boot" run configuration type)
   - Profile: Use profile `dev` for local development. This will disable various optimizations that will reduce the need for restarts. With Spring Boot plugin to IntelliJ use the `Active Profiles` section. With standard Java application, use JVM property `-Dspring.profiles.active=dev`.
6. Optional: Migrate and simplify your Spring managed beans from manual @Bean instantiation to @ComponentScan. See samples.
   - Review/Update: ALL controller methods that return a response that should be interpreted as http response body (String, JSON, ..) MUST declare this using `@ResponseBody` on the controller

method. This is and has been the recommended way, but iKnowBase 7.1 and earlier would resolve this as JSON without `@ResponseBody`. From iKnowBase 7.2 you will get an error stating that the page(or view) could not be found.

Note that all "ikb*"-gradle tasks have been removed from the new setup as they are no longer required.

4.8.15. Updated minimum version of Oracle WebLogic

The minimum version of Oracle WebLogic is updated, see the chapter "Supported application servers".

4.8.16. Instant on Oracle WebLogic logs warnings (unresolved issue IKB-3343)

iKnowBase Instant will trigger warnings ´WELD-000714´ from `org.jboss.weld.Servlet` and `WELD-000225` from `org.jboss.weld.Context` when the client closes the Instant connection, either explicitly by unsubscribing or when the web browser navigates away from a page with an active Instant connection.

iKnowBase Instant works despite these warnings and until the issue is resolved you should consider setting log level for these packages to `ERROR` to avoid spamming the logs.

4.9. Upgrade from iKnowBase 7.1.0

4.9.1. WebDAV

7.1.1 changes the WebDAV lock infrastructure from an in-memory to a database persisted solution. Default lock timeout is set to 1 hour (default Microsoft Office lock timeout) and the timeout is now also configurable (WebDAV configuration).

This change is done automatically and no additional upgrade steps are required if the default suits your needs.

With the lock infrastructure persisted to database, the WebDAV module may now be clustered.

4.10. Upgrade from iKnowBase 6.7

4.10.1. Infrastructure requirements

From this release, iKnowBase requires Java 8u40 or newer to run. The embedded web server automatically supports this, but if you use WebLogic you will also need to upgrade to the currently supported version newer. GlassFish v3 does not support Java 8, so GlassFish v3 is no longer supported. The embedded web server supports all known workloads currently being served by iKnowBase on GlassFish v3.

iKnowBase web server

The iKnowBase web server is now based on a Jetty version, which uses updated HTTP specifications.

This upgrade removes support for HTTP/0.9. While this update should not affect end user clients, it might affect systems requesting information from iKnowBase over HTTP. The systems need to adjust to follow updated HTTP specs.

4.10.2. New name for the wrapper scripts

Previously, the iKnowBase setup program and quickstart web server was started using the QUICKSTART.BAT or quickstart.sh scripts. This has been renamed to IKNOWBASE.BAT or iknowbase.sh. All scripts that reference the old script will have to be modified.

4.10.3. Security configuration changes

The LDAP authentication configuration option 'userDnPattern' has been changed to 'userSearchBase'. Update your configuration accordingly.

Example:

Old option	Old value	New option	New value
userDnPattern.1	CN={0},CN=Users	userSearchBase.1	CN=Users
userDnPattern.2	CN={0},CN=Premium Users	userSearchBase.2	CN=Premium Users

The LDAP search will, like before, search for users in the specified tree(s) and below.

4.10.4. Desupport of iKnowBase Add-in for Microsoft Office

During upgrade, any usage of the presentation style function "edit document" is changed to an "edit using webdav" function instead. A component that already had both functions will now have two copies of the webdav-function; you should then manually remove the extra function after upgrading.

4.10.5. Merge Solr search engine configurations

Previous versions allowed you to set up two different URLs for each search source, one for indexing and one for searching documents. This was almost never used, and all known installations use the same URL twice. It is now only possible to specify a single URL for both indexing and searching. If you need different configurations, create a separate search engine configuration for each.

4.10.6. Service API for Java

In the java-version of the Service API (the interface DocumentService), several methods have received new overloaded versions. If you ever called any of these functions with a literal null parameter, you will have to add a cast to your code:

- setDocumentIdentity

- setParentDocumentReference

- setDocumentTypeReference

- setAclReference

- setStatusReference

```
// documentService.setAclReference (null);
documentService.setAclReference((ObjectReference)null);
// or
ObjectReference aclReference = null;
documentService.setAclReference(aclReference);
```

4.10.7. FreeMarker API

The formatted html value of a field, ie text and html properties, is escaped using Apache Commons, which escapes according to the HTML4 specification. In earlier versions of iKnowBase, a custom function which didn't escape norwegian characters was used.

4.10.8. HTML portlet #PARAM substitutions are now limited to strict validation

#PARAM substitutions in HTML portlets are now limited to strict validation due to security issue IKB-3068. Numbers, date strings and simple system strings (typical used as external key) are allowed. All other input values will result in logged (WARN) validation error "Unable to substitute #PARAM-tags..".

If you rely on any other types of input to #PARAM tags, you need to rewrite this functionality.

4.10.9. Upgraded Solr client libraries

The embedded Solrj client libraries have been upgraded. With the version, there have been some API changes. The most relevant changes are listed below, but for full details you will need to check the Solr documentation.

- SolrQuery deprecated methods have been removed:

  - setSortField(String, ORDER) should use setSort(…)

  - addSortField(String, ORDER) should use addSort(…)

  - removeSortField(String, ORDER) should use removeSort(…)

  - getSortFields() should use getSorts()

4.10.10. iKnowBase Content Studio configuration

The iKnowBase Content Studio plugin requires a set of metadata with the external keys as given in the table below. Your site can be configured to use custom external keys, see *iKnowBase Installation Guide > Content Studio Plugin*. Ensure that your site is either set up with the default external keys or

that you have added the necessary configuration.

Type	Label	External key	Usage
ACL	Access group for Content Studio	CS_PAGE_ACCESS	User authorization
Attribute	Copyright	IKB_ATTR_COPYRIGHT	Image form and image metadata; Automatically extracted and stored as document attribute when image is created, maintainable in image form
Attribute	Image Archive	IKB_ATTR_IMGARCHIVE	Image form
Attribute	Photographer	IKB_ATTR_PHOTOGRAPHER	Image form and image metadata; Automatically extracted and stored as document attribute when image is created, maintainable in image form
Attribute	Image height	IKBIMAGE_HEIGHT	Image form
Attribute	Keep image ratio	IKBIMAGE_RATIO	Image form
Attribute	Image width	IKBIMAGE_WIDTH	Image form
Attribute	iKB Common Subtypes	IKB_COMMON_SUBLIST	Document archive and picklist (filter)
Attribute	iKB Related Object	IKB_RELATED_OBJECT	Newsarticle form (Optional)
Attribute	iKB Channel	IKB_CHANNEL	Newsarticle form (Optional)
Attribute	iKB Image	IKB_IMAGE	Newsarticle form (Optional)
Doctype	Images	IKB_DOCTYPE_IMAGE	Image and document archives and picklists, image form
Doctype	Information	IKB_DOCTYPE_INFORMATION	Newsarticle form (Optional)
Form	Image	CS_FORM_IMAGE	Image form
ValuelistValue	Finished (Valuelist:iKB Document Status)	IKB_COMPLETE	Document for approval page (IKB$STATUS filter)

4.10.11. iKnowBase Process Studio

iKnowBase Process Studio has been converted to an external iKnowBase plugin and is no longer installed by default. The plugin is provided alongside the iKnowBase distribution files. For installation details, see iKnowBase Documentation > Installation Guide > Java Applications > Installing plugins and patches.

4.10.12. Oracle JDBC driver (bug #19857183)

Due to a bug in the Oracle JDBC driver (bug #19857183), certain XML operations are only available when using the Oracle 12c database.

iKnowBase issue reference: IKB-2878

4.10.13. Repository changes and custom code

iKnowBase 7.0 has introduced a few changes that might have an impact on custom PL/SQL code.

Description	Solution
IKB_PORTLET_PREFS.REFERENCE_PATH is replaced by ID	Queries against IKB_PORTLET_PREFS with reference_path in the statement has to use ID instead. e.g. "where reference_path = ", use "where id = "
DOCUMENT.CONTENT_TYPE doesn't exists anymore	CONTENT_TYPE was used to identify if the content was text or binary. Use the column DOCUMENT.STORAGE_TYPE instead. The possible values are FILE, TEXT, URL, XML or NONE.
IKB_PCK_DOCUMENT.GET_FORMAT (p_filename) doesn't exist anymore	The function returned ikb_format.content_type based on the extension. Use the column DOCUMENT.STORAGE_TYPE instead.
Deprecated Object types (IKBACLTYPE, IKBGENCODES + GENCODEVALUES)	The object types still exists, but we recommend to use OT_ACL/CT_ACLS, OT_VALUELIST/CT_VALUELISTS and OT_VALUELIST_VALUE/CT_VALUELIST_VALUES

Description	Solution
IKB_SERVICE_API.SAVE_DOCUMENT.P_CONTENT_OPERATION	By default, P_CONTENT_OPERATION is set to MERGE if you don't explicit set it. If you then update a document without any content (e.g. ot_document.binary_content/text_content/url/xml_data is null), it will clear the content fields. You have to set P_CONTENT_OPERATION to IKB_SERVICE_API.SAVE_OPERATION_NONE to avoid a clearing of the content data. To identify all places where the function is used, please run a query like this : Select * from all_source where upper(text) like '%IKB_SERVICE_API.SAVE_DOCUMENT%'.
New signatures for some functions in OID_SYNC	The functions Get_group_memberships, Get_group_membership and Getattributevalue now use an object type to tranfer sync profile data. oid_sync.ldap_instance_rec has been introduced and if you need to create an instance of it, use oid_sync.initialize (p_sync_id IN NUMBER, p_external_key IN VARCHAR2 DEFAULT NULL) RETURN oid_sync.ldap_instance_rec;

4.11. Upgrade from iKnowBase 6.6

4.11.1. Application to modules

All web applications have been merged to one web application.

Review your current deployments and deploy the application with the required modules enabled. By default, the modules Batch, Studio and Viewer are enabled.

See installation guide for updated instructions and configuration.

4.11.2. WebServices

The application iknowbase-webservices-webapp has been removed, and the WebServices functionality has been incorporated into the single iknowbase-webapp. This means that there is (by default) no deployment at the endpoint `/ikbWebServices` anymore, and references to `/ikbWebServices/ws` will thus not work.

The web services endpoint root is from this release available as an installation property. The default value is `/ws`. You should change this to `/ikbWebServices/ws` for existing sites which already use the iKnowBase web services.

Note! On WebLogic Server the web services endpoint root must be changed to something different than `/ws`, e.g. `/ikbWebServices/ws`, as the `/ws` endpoint in iKnowBase is currently reserved for web

socket communication when deployed on WebLogic.

4.11.3. Plugin Development

You need to create a new plugin development workspace and manually migrate your plugins to the new build structure. See updated plugin development documentation.

Update all Spring Controller plugins must

- Replace @Controller with @RequestMapping annotation.
- Add new @Configuration class as the Spring beans factory that will create your Controller.
- Add new spring.factories file that points to the @Configuration class.

4.11.4. Instant

Javascript onError callback will now be called for all server errors. Previously this required custom error detection as not all server errors would result in onError callback.

If you require the old reconnect behavior, set atmosphere option reconnectOnServerError to true.

4.12. Upgrade from iKnowBase 6.5

4.12.1. Migrate FreeForm and tabular presentation styles

This release offer a tool to convert from free form/tabular styles to freemarker templates. You can do it either one by one, or as a bulk operation to convert all styles. You do also have the option to rollback. The functions are available from iKnowBase Studio → Development tools → Presentation styles.

4.12.2. Authentication

Customers using iKnowBase Quickstart (now known as iKnowBase Web Server) need to review all authentication configuration, since all iKnowBase Web Server specific modules has been replaced by new authentication modules.

Customers using Oracle WebLogic may use the default container mode for username and password authentication. They may also change from container mode to the new set of authentication modules. Use of some of WebLogic authentication modules like SPNEGO and SAML2 require special deployment descriptor and role protection not included in the standard web archive to function properly. Contact support for assistance if you require use of these WebLogic authentication modules. Note that iKnowBase's set of authentication modules includes both SPNEGO and SAML2.

4.12.3. Authorization

The roles IKB_USERS, IKB_DEVELOPERS and IKB_SYSADMINS are no longer in use. Groups that exist only to provide these roles may be removed.

Users that need developer / system administrator access must have the admin flag set in the

iKnowBase User Repository. User synchronization may need to be adjusted if administrator access is controlled from an external repository.

4.12.4. Logout

If in use, change the logout target from /ikb$logout to /ikb$auth/logout and the redirect URL from path parameter to the new url parameter "redirect".

4.13. Upgrade from iKnowBase 6.4

4.13.1. New signature for Custom Save procedures

Custom Save-procedures are used when the default behavior during a save process from a form needs customizations. Normally the starting point is the standard procedure ikb_ce_custom_editor_portlet.save_document when a new custom save procedure is created. The standard procedure signature has been expanded during the years and to enable new functionality in custom save procedures you need to change the signature and also some of the logic within the procedure. To identify mismatches between the standard procedure and a custom procedure, use the report "Custom Save (Form) compability" under ikbStudio→Database Admin→Reports. For backward compability it will work AS IS, but new functionality will not be enabled. The list describes the arguments and what functionality it enables:

Argument name	Description
p_description	Replaces p_description_array (used by the LEAD-attribute in iKnowBase). From iKnowBase 6.5, large text areas can be posted as CLOBS. Enables support of arbitrary text-editors in Forms.
p_text_indexes	Replaces p_text_array (used by the CONTENT-attribute in iKnowBase). From iKnowBase 6.5, large text areas can be posted as CLOBS. Enables support of arbitrary text-editors in Forms.
p_attribute_clobs	Replaces p_long_text_arrays (used by the CLOB-attributes in iKnowBase). From iKnowBase 6.5, large text areas can be posted as CLOBS. Enables support of arbitrary text-editors in Forms.
p_session_id	Used to check if the session has changed since the form was loaded.
p_last_timestamp	Used to check if a document has been changed since the form was loaded.

Make sure to add the arguments to the call of the stored procedure `ikb_ce_custom_editor_portlet.func_save_document` too, e.g:

```
l_document_id := func_save_document (
    ...,
    p_description      => p_description,
    p_text_indexed     => p_text_indexed,
    p_attribute_clobs => p_attribute_clobs,
    p_last_timestamp  => p_last_timestamp,
    p_session_id       => p_session_id);
```

4.13.2. iKnowBase Quickstart sessions cookies

To avoid session collisions between iKnowBase Webapp deployed to / and any other applications also using sessions, the sessionid is given a unique name per web application.

- Old: `JSESSIONID`
- New. `IKBSESSION` using default session handling
  - `JSESSIONID` using native WebLogic sessions (not default)
  - `IKBSESSIONSERVER` using native iKnowBase Web Server sessions (not default)

4.13.3. iKnowBase Instant

Reconnect on close

In case the server is unavailable, sends an error or there is a network outage for the client, the iKnowBase Instant JS API will no longer reconnect forever to prevent browser locking and unnecessary server load. Five (5) attempts are made to reconnect before the connection is aborted with onError callback. The atmosphere option `maxReconnectOnClose` controls this behavior.

onOpen-callback

When using the default long-polling transport, the onOpen callback will now be triggered properly without the client needing to publish a message.

As described in the previous section, the onError callback will be triggered after 5 reconnect attempts (and onReconnect callbacks) are made.

JOIN-message

Javascript clients will no longer receive JOIN message for their own join. The user is still present in the USERS message sent after joining if the client subscribes to these messages.

Message format

The message format `IKB` used by the asynchronous javascript clients carried a `data` payload encoded as JSON string. This extra encoding has now been removed and clients need only parse the whole response message body.

In the onMessage callback, keep the JSON parsing of the response.responseBody to IKBResponseMessage object, but remove the extra JSON-parsing for IKBResponseMessage.data.

Configuration

The iKnowBase Instant installation properties configuration has been adjusted. Review the renamed configuration changes and update installation_properties accordingly.

Removed:

- com.iknowbase.instant.suspendTimeoutLP: Default heartbeat functionality has been added.

Renamed:

- disconnectCleanupInactivityThreshold:
- cleanupDisconnectedConnectionsThreshold

disconnectCleanupInterval: cleanupTopicThreshold

Added:

- broadcastDelayUserListUsers
- broadcastDelayUserListJoin
- broadcastDelayServerRequest

4.14. Upgrade from iKnowBase 6.3

4.14.1. Solr

Due to the improved Solr support, the syntax for referring to a solr search client from a groovy script has now changed:

```
// Old vs new
 // def client = iknowbase.beans.searchClient
 // def client = searchClients.<name>; e.g. for the intranetsearch
engine: def client = searchClients.intranet
```

The old syntax is typically used only a few places, and can easily be found using the search function in the Development Studio.

4.14.2. iKnowBase Application is deployed to / by default

The iKnowBase application has traditionally been deployed to /ikbViewer. The application has supported context root /, but this is now set as the default context root. See Installation Guide > iKnowBase Web Server

4.15. Upgrade from iKnowBase 5.8 or lower

If you are upgrading from iKnowBase 5.8 or lower, please contact the iKnowBase product team.

Chapter 5. Closed issues

5.1. Release 8.1.6

5.1.1. Improvements

Issue#	Description
#887	Better error messages from from validator
#958	Don't abort email sending in one case when one recipient fails
#1055	Add way to abort sending newsletters without content
#1064	Better email address validation for newsletter subscription
#1067	Improve security on some backend endpoints
#1068	Add mitigation for Spring Core vulnerability

5.1.2. Bugfixes

Issue#	Description
#1059	Fix NPE in form validator

5.2. Release 8.1.5

5.2.1. Bugfixes

Issue#	Description
#1048	Fix bug where ?ikbRender did not traverse into layout pages looking for page components
#1052	Update Log4j (CVE-2021-45105)

5.3. Release 8.1.4

5.3.1. Bugfixes

Issue#	Description
#1052	Update Log4j (CVE-2021-45105)

5.4. Release 8.1.3

5.4.1. Bugfixes

Issue#	Description
#1044	LDAP sync can fail during group sync if attribute is set but empty
#1052	Update Log4j (CVE-2021-44228 and CVE-2021-45046)

5.5. Release 8.1.2

5.5.1. Bugfixes

Issue#	Description
#1041	Fixed that some select-popups in ikb$console didn't open
#1043	Fixed wrong event id in error log for multiple events triggered from same document change

5.6. Release 8.1.1

5.6.1. Bugfixes

Issue#	Description
n/a	Fix inline documentation in ikb$console
n/a	Fix missing MASTER .dmp files
#814	Fix Oracle search in binary content

5.7. Release 8.1

5.7.1. New features

Issue#	Description
#941	Upgrade to Java 11
#978	Support Oracle Cloud Autonomous Database

5.7.2. Improvements

Issue#	Description
#944	Upgrade jsoup from 1.11.3 to 1.13.1
#947	Remove Nashorn support due to marked for removal in jdk
#949	Upgrade Kotlin from 1.3.21 to 1.4.21
#952	Upgrade Atmosphere to 2.5.15
#953	Set default socket read timeout for jdbc
#954	Batch queue listeners should not start before application is ready

Issue#	Description
#968	Upgrade commons-text to 1.9
#969	Upgrade Oracle jdbc driver to 19.3.0.0
#975	Use jackson as the default json-path provider
#981	Upgrade Java Simon to 4.2.0
#983	Remove support for datasource monitoring using Java Simon wrapped datasource
#985	Support Oracle Database 19c
#1006	Make it visible in the user console whether a user has a password
#1009	Upgrade to Spring Boot 2.4.1
#1013	SwitchUser defaults to POST only from Spring Boot 2.2.6
#1016	Upgrade Groovy to 3.0.7
#1018	Upgrade to Gradle 6.6.1

5.7.3. Bugfixes

Issue#	Description
#943	NullPointer in console runtime request report
#946	Batch Page Engine must always free temporary clob regardless
#951	ikb$console runtime config fails if spring.application.name is set
#961	Repository check report of overridable forms always list all form runners
#966	Vulnerarbility: CVE-2019-10086
#999	ContentServicesClient.getJdbcOperations() didn't return connection initialized as the current user
#1015	Forms with a required file attribute fails validation

5.8. Release 8.0.3

5.8.1. Bugfixes

Issue#	Description
#1052	Update Log4j (CVE-2021-45105)

5.9. Release 8.0.2

5.9.1. Improvements

Issue#	Description
n/a	Support user GUID in the freemarker user model

Issue#	Description
n/a	Documentation improvements

5.9.2. Bugfixes

Issue#	Description
#966	Update Milton (CVE-2019-10086)
#1044	LDAP sync can fail during group sync if attribute is set but empty
#1052	Update Log4j (CVE-2021-44228 and CVE-2021-45046)

5.10. Release 8.0.1

5.10.1. Improvements

Issue#	Description
#997	Upgrade to Spring Boot 2.1.11.RELEASE

5.10.2. Bugfixes

Issue#	Description
#967	Upgrade Apache Santuario XML Security (CVE-2019-12400)
#995	Jetty stopped responding (fix in #997)

5.11. Release 8.0

5.11.1. New features

Issue#	Description
#911	Generic support for OAuth2 (and OpenID Connect)

5.11.2. Improvements

Issue#	Description
#32	Remove Jetty server header through standard Spring Boot Configuration
#361	IKB-2844: EHCache: ObjectGraphWalker: The configured limit of 1,000 object references was reached..
#384	Add support for HTTP/2 in iKnowBase Web Server
#531	Use of application.properties for PropertiesLauncher is deprecated
#582	Upgrade Spring Boot from 1.5.x to 2.1.x

Issue#	Description
#680	Upgrade to log4j2 version 2.11.2
#832	Verify support for Oracle database 18c (12.2.0.2.x)
#835	Replace Spring Social authentication with Spring Security 5 due to Spring Social End Of Life
#883	Support custom interceptor before SPNEGO challenge is issued
#886	Consistent order of rows in a result set generated by a classic viewer/searchsource should be guaranteed independent of sort key
#899	Google sign in can no longer use Google Plus
#905	Intermittent socket closed when using LDAP authentication
#907	Support account autoconnect for OAuth2
#909	Update JDBC driver to Oracle 18c
#910	Add support for Spring AOP with AspectJ
#914	Improve performance in dimension navigator by setting certain dimension types to exclude when traversing
#917	For Jackson Kotlin classes support please add "com.fasterxml.jackson.module:jackson-module-kotlin" to the classpath
#926	Remove Jetty send version and powered by
#936	LDAP sync should ignore character encoding error on selected attributes

5.11.3. Bugfixes

Issue#	Description
#885	LDAP sync for users with equal CN results in merged account, person dimension and person card
#895	Prometheus database metrics reports type as help and help as type
#897	CVE-2019-3773: Spring Web Services: XML External Entity Injection (XXE)
#898	CVE-2018-1000873: Jackson: Denial of service when parsing a big JSON number as Instant/ZonedDateTime/OffsetDateTime
#912	Remove commons-email from Activiti dependency tree
#915	SAML - Authentication statement is too old to be used
#921	Failures in filter chain should not display stacktrace to end user
#924	Form validation must allow versioning properties
#927	Classic form "Display/add other attributes" is not allowed to update undeclared attributes already present in document
#930	Form session timeout error message is no longer displayed for unauthenticated users

Issue#	Description
#931	p_form_back_url with url param key without value blocks form save
#933	Related object with null title fails in Java form
#937	CVE-2018-15756: Denial of Service attack Spring MVC static or Resource handlers
#938	Switch user access check does not pass switch to user to procedure
#939	Switch user state is not reflected in access log

5.12. Release 7.7

5.12.1. New features

Issue#	Description
#762	Create supported passthrough-provider for ContentTransformation
#782	Support Java-form in Classic Portlet
#807	Content Query row should support mapping to a bean
#869	Allow specifying XML or BINARY for Solr network communication

5.12.2. Improvements

Issue#	Description
#269	Support bcrypt password hashing function
#777	List Manifest information for all accessible manifest files
#779	Make it possible to read sys-password from stdin
#780	Add setup commands "testConnection" and "testSysConnection"
#783	Make the iKnowBase Solr plugin a better docker-citizen
#809	Improve error handling on ikb authentication if user/pass is empty
#812	ikb$console should hide sensitive environment variables
#815	Upgrade to Spring Security SAML 1.0.4
#824	Exception handling in AbstractQueueListener should log with level WARN or ERROR
#833	Support prometheus metrics for database
#834	Add "Purge expired" button to console for queue based services
#837	Support jvm exit and bean restart/shutdown commands for deployment
#845	Make AttributeMapping understand enums
#854	FreeMarker error handling should use rethrow handler instead og HTML_DEBUG or DEBUG
#857	Upgrade to Spring Boot 1.5.16.RELEASE

Issue#	Description
#860	Deprecate Nashorn support
#861	Create remove()-method on DocumentAttributes
#862	Make changes to targets invalidate relevant java-caches
#878	Update Solrj client to 7.5
iknowbook#127	Inline editor should support regular user specified links

5.12.3. Bugfixes

Issue#	Description
#786	Escaped HTML is printed in ikbconsole domains
#789	Search source with dynamic url search param does not URLencode query param value as UTF-8
#790	Content Query SqlFunctionBuilder does not work with attribute
#792	Functions console statistics timing is not presented in ms
#803	DimensionQuery problems when specifying root nodes that you have no access to
#810	Error message when creating subsystem
#818	solrj 6.6.2 error while working with solr 7.2.1 version
#838	FormProcessor.save() should update documentReference on form bean, before calling @AfterXXX-methods
#872	CVE-2012-0881: Upgrade Xerces to 2.12.0
#873	CVE-2016-2510: Upgrade bsh to 2.0b6
#875	CVE-2018-8013: Upgrade batik to 1.10

5.13. Release 7.6

5.13.1. New features

Issue#	Description
#592	iKnowBase Functions — managed functions execution
#665	Allow java-based layout page in classic

5.13.2. Improvements

Issue#	Description
#505	Upgrade Groovy to 2.4.12
#521	Support "hasPermission('executionUser', 'CREATE')"

Issue#	Description
#555	Metadatagenerator should sort subsystems by name
#557	SAML2 Metadata Generator should output full configuration for use in application.properties
#558	Suppress unnecessary WARN log statements from standard log setup
#577	Add org.jsoup:jsoup to default libraries to enable validation like @SafeHtml
#578	Document usage of property source iknowbase-alias.properties
#588	Repository check displays "last updated" in title, but the meaning is not obvious
#596	Add withPrompt()-shortcuts to all objects that have Prompts.
#597	Add withSubsystem()-shortcuts to all objects that have a subsystem reference
#598	Enable multiple predicates in ContentQueryBuilder.where(...)
#599	Create DocumentAttributes.get(...) that returns an Optional<DocumentAttribute>
#600	Remove ChildSession-concept from Tracer
#602	Support a "NoChallenge" authentication entry point for javascript clients
#609	JavaDoc for ContentServicesEngine.createClient should explain that the returned client **must** be closed
#610	Upgrade Oracle OutsideIn distribution to 8.5.3
#617	Validation issues in java image form (81) in ikb 7.5
#621	Changelog number in AD/OID-sync should be defaulted to 0
#625	ContentQuery: map into java class
#626	SOLR: Value list ID is not populated to SOLR
#628	SOLR: when trying to dequeu a non-existing message (can occur), its not necessary to throw an error
#629	AQ: The combination of l_dequeue_options.deq_condition and sort_list doesn't work
#639	@AttributeMapping should support field as well as method
#650	ContentServicesEngine should be accessible in Activiti scripts
#651	Default login redirect entry point should support redirect query parameter to facilitate preserving a hash parameter
#652	Login redirect at /private/login/ should support absolute redirect target
#653	Content Server should support not sending content-disposition header
#655	Content Server should support setting default content disposition for each mimetype
#660	Remove documentation from /ressurs/iknowbase/doc. Publish to dev.iknowbase.com only.
#664	Add Jackson serialization/deserialization support for Java 8 date/time types
#667	OID_SYNC.GV_SYNC_GUID should be defined in header instead of body.

Issue#	Description
#668	Database connection pool connectionTimeout should by default be increased from 3 to 10 seconds
#669	Database connection pool minimumIdle should by default be increased from 1 to 10 connections
#674	Spring Boot's JmsAutoConfiguration should be disabled to support multiple JMS Connection Factories
#675	Java SDK Portlet registration failures should fail hard and prevent application startup
#678	Add more options for database profiling
#682	Support request-specific extra logging
#684	Ldap sync should always log errors
#697	Remove documents from solr index when the event doesn't fit anymore
#700	Support versioned documents in WebDAV
#705	Make application.properties.SAMPLE available from documentation
#706	Attribute iKB Resource's external_key should be set to IKB_RESOURCE
#707	Better handling of ikb_global_prefs
#709	Upgrade to Spring Boot 1.5.9.RELEASE
#710	Remove unprocessed duplicate events from solr queue when a new updated event is generated
#713	Add console page that displays active security configuration
#714	Upgrade to Gradle 4.4
#715	Provide access to HttpServletResponse.urlEncode() from FreeMarker for Java SDK
#717	Disabled batch services should not be loaded at all
#718	iKnowBase configuration report should display actual global prefs name
#765	ContentQuery RowTransformationClient should support renaming the source file before submit to provider
content-studio#13	Support default folder config and client side folder validation for the image form
content-studio#18	Present edit webdav links for versioned documents
content-studio#19	Configuration option to enable WebDAV actions.
iknowbook#115	Publish documentation per release
iknowbook#118	Documentation should specify that iKnowBase Content Studio is normally deployed as a separate application and not as dependency

Issue#	Description
iknowbook#1 19	Document installation requirement to create the configured admin ACL if it does not exist
microsite#86	Publish documentation per release
microsite#88	Document installation requirement to create the configured admin ACL if it does not exist

5.13.3. Bugfixes

Issue#	Description
#24	FreeMarker loadURL cannot be used in target ⇒ inline template
#34	Content query fails on binary files without filename
#583	Reflected XSS vulnerability in iKnowBase Classic
#584	Create subsystem without external key results in an error
#586	SolrSearchClient.getRowSet() returns a non-traversing row set, while it should be traversing
#589	X-IKB-AUTH-HEADER with invalid token ends in redirect loop
#594	Error: Setting the has_add_permission is invalid. Doesn't use the setting from acl.create_subdoc
#612	Reload tasks on EmailReader will start a disabled EmailReader
#616	Users get a error when trying to replace value in single value attribute (ie ikb image)
#618	Default value is ignored for folder in classic image form (81) in 7.5
#619	Description of "Return full document object?" is missing in Help-tab on viewer in ikb 7.5
#630	ORA-14551: cannot perform a DML operation inside a query after upgrade to 7.5
#633	Template viewers with cache key and onload render does not render (ikb 7.5)
#634	UpgradeAll for tinymce_profiles fails with ORA-01489: result of string concatenation is too long
#637	IKNOWBASE.BAT (windows) does not support plugin loader path
#641	An error has occurred when reading existing sub-variable "contentLink" after upgrade to 7.5
#644	Error in the documentation regarding Solr setup
#662	Document service storage of HTML-encoded varchar2 document attribute value is decoded before storage.
#671	ikb_instant.publish fails if username exceeds 30 characters
#672	search_engine_name is not updated when documents in solr_changelog is updated

Issue#	Description
#677	Cache navigation in ikb$console does not work with elementKeys containing / and back to parent directory
#698	Error page vulnerable to reflective XSS
#699	Documents with text content show both file and content attributes in form after upgrade to 7.x
#704	Stored XSS vulnerability in ikb$console
#711	CSS error on standard error page
#712	Error saving form defaults when form is configured with a dimension attribute with a subset of data
#716	The loadXML FM Macro fails (doesn't return expected data) occasionally without any trace in the error logs
#724	Documentation points to non existing yui3-grids-min.css
#733	LDAP authentication configuration error responds with illegal statusline if HTTP Basic is used
content-studio#15	An error has occurred when reading existing sub-variable "contentLink" after upgrade to 7.5
content-studio#16	Error message in view properties in document archive when document is versioned
content-studio#17	View PDF and View HTML missing since 7.4
content-studio#23	Search in image archive for image prefix does not work
iknowbook#116	Migration fails with DocumentService$MissingInputException: ORA-20108: Unable to get the subsystem type. No input is given
iknowbook#117	iKB Resource has no external key. Should be set during database migration.
iknowbook#121	Chapter numbering is broken - should start on 1
iknowbook#122	Levels in navbar is missing css for levels > 3
iknowbook#124	Warning in Firefox when toggling editMode
microsite#87	Installation fails if query for YesNo valuelist returns more than one row
process-studio#15	Support english language in UI

5.14. Release 7.5

5.14.1. New features

Issue#	Description
#33	Enable default mapping of jar-file resources to /
#116	Audit logging: Log all changes to a document
#515	Support recovery of deleted documents
#528	Add SolrSearchClient-api for easy streaming of json-content
#537	Manage subsystems through the ServiceAPI
cs#7	Add trash bin functionality

5.14.2. Improvements

Issue#	Description
#22	Upgrade to Spring Boot 1.5
#27	Improve management of triggers
#312	Implement fault-tolerance in EMailReader
#490	Patchset: "Build dataset" should not submit edit-tab
#499	Triggers should be stored as files and installed during upgradeAll
#507	Support environment specific iknowbase-alias.properties with configuration overrides
#516	Configurable default acl for images
#518	Upgrade to Gradle 3.4.1
#524	Replace Spring defaultHandler with dynamic mapping for classic page and target
#525	Support resolution of default welcome file /index.html in static resource directories
#529	Content Studio: Document archive should support dimension url parameter
#530	Suppress confusing warnings with fallback MessageInterpolatorFactory (HV000184)
#533	Upgrade to Spring Boot 1.5.3
#534	FreeMarker Form Macro API: Improve logic for filtering metadata (POOR performance at NSF)
#535	Turn tinymce-profiles into generic html widgets
#536	Upgrade JDBC driver from ojdbc7 12.1.0.2 to ojdbc8 12.2.0.1
#544	EmailReader should support configurable setting to only fetch unprocessed emails for IMAP
#546	EmailReader should support marking unreadable messages to avoid reprocessing

Issue#	Description
#550	EmailReader should keep import/create and update timestamps in import tables
#553	EmailSender should warn on invalid recipient, but otherwise continue with sending to the valid recipients
#564	Update of document.metadata_text for Oracle Text search should be optional for improved performance
#566	Upgrade to Gradle 3.5
content-studio#6	Automatically select dimension and show documents when the document archive is opened, if dimension URL parameter given
process-studio#1	/ps/definitions should list only latest version by default
process-studio#2	/ps/definitions should be sortable by date (if that exists!)
process-studio#3	/ps/instances "sort by id" should be numeric
process-studio#4	Radio buttons should have clickable labels (e.g /ps/definitions)
process-studio#5	Most lists should be default sorted on date, newest first (e.g. /ps/tasks)
process-studio#6	Tables with actions should have a clickable link on table itself (e.g. /ps/tasks)
process-studio#7	HTML title tag should reflect page, e.g. "tasks" or "instances"
process-studio#8	In process instance list, duration should display in readable format

5.14.3. Bugfixes

Issue#	Description
#498	IKB-3499: Dynamic load of Java-based form doesn't work in IE
#508	An instance with batch-module enabled and viewer-module disabled uses wrong executor / task scheduler
#509	X-IKB-AUTH-TOKEN should be allowed even if user has already been authenticated
#510	Spring Social Live update due to changed OAuth URL by Microsoft
#543	SAML2 entityId should follow URI requirement and URL recommendation
#547	EmailReader only reads 1000 first emails in folder
#549	EmailReader IMAPS can't connect to server
#554	Gradle UploadTask's renameSearchExpression adds an additional CRLF
#559	ikb_service_api.save_document_attribute doesn't make new versions

Issue#	Description
content-studio#9	XSS vulnerability through specially crafted links
process-studio#13	XSS vulnerability through specially crafted links
rest-userrepository#2	saveUser fails if documentGuid and/or dimensionGuid is set

5.15. Release 7.4

5.15.1. New features

Issue#	Description
IKB-3486	Add support for Spring Data REST using custom repository implementations
#4	Support java-functions in ContentQuery
#17	Create a PortletRunner to run portlets on-demand
#18	Spring Data REST Infrastructure

5.15.2. Improvements

Issue#	Description
IKB-3315	The loadURL FreeMarker macro should handle longer feeds
IKB-3429	Solr Events: If the exception list has many entries, it takes unreasonable long time to display the page /event/solrbatch
IKB-3430	Upgrade from Spring Boot 1.3.8 to 1.4.2
IKB-3431	Upgrade from Log4j1 to Log4j2
IKB-3433	Content Query getItem with documentOperation FULL should retrieve external keys
IKB-3437	Attribute IKB$PARENT_DOCUMENT should be fetched as Object Reference.
IKB-3438	Deprecate IKB$PARENT_DOCUMENT_REFERENCE - use IKB$PARENT_DOCUMENT instead
IKB-3444	Support choosing more images for attributte with datatype "Link to images"
IKB-3448	Form generator for java: Callback for beforeInsert should use actual document type
IKB-3449	Form generator for java: Add bean validation NotNull to required attributes
IKB-3469	Classic Form: dimensional attributes with style e.g SELECT without subset - select to show all / none of the dimensions
IKB-3470	Group Admin is slow if the group has a lot of members

Issue#	Description
IKB-3471	ikb_ctx_adm.create_ctx_prefs: Should be possible to define tablespace name
IKB-3474	Improved error message when creating a user (username is mandatory)
IKB-3475	Login token should be supported as HTTP Header
IKB-3480	EofException caused by connection reset by peer should not be logged on error
IKB-3481	Solr Search Client Provider should be available for Java SDK Portlet
IKB-3482	Reduce log level for token based authentication
IKB-3483	Login token should be supported for all HTTP methods
IKB-3485	Targets: Should be possible to delete parameters without value
IKB-3490	Upgrade from Spring Boot 1.4.2 to 1.4.4
IKB-3492	mv_log_documents materialized view på enterprise edition bør bruke 11g sin støtte for fast refresh.
#2	Hide application property "bearer_tokens" from console views (ref prometheus configuration)
#3	Allow multiple deploy tokens
#9	Remove old SmartResourceManager infrastructure in favor of spring boot-supplied solution.
#10	Need a way to do "where document_guid = xxx" in ContentQuery
#13	ContentServer should produce Last-Modified header, and honor If-Updated-Since CLOSED 1
#15	Provide access to HttpServletResponse.urlEncode() from FreeMarker
#16	ContentServer should produce "public" cache control for public documents

5.15.3. Bugfixes

Issue#	Description
IKB-3428	Object type returned from content query row should be the same for retrieval by expression and by String
IKB-3432	File attribute in form gives error when choosing many files
IKB-3435	EmailReader should accept file attachments with " in filename.
IKB-3436	EmailReader nullpointer
IKB-3439	Order condition in presstyle: Cannot use attribute in function if already selected as order by attribute
IKB-3447	Form generator for java: Wrong variable name for attribute used in callback
IKB-3450	iKnowBase JavaSDK Portlets used for testing should not be included in distribution
IKB-3452	Installation properties should have higher precedence than defaultProperties
IKB-3454	Inline functions in PL/SQL {} doesn't return any values if the function returns NULL

Issue#	Description
IKB-3455	Increase l_order in ikb_content_viewer - 3000 is not enough if you have many order conditions
IKB-3456	ikb_portal_api.get_values should be defaulted to return all values with an option to retrieve only the unique values
IKB-3457	Improved performance running upgradeAll
IKB-3458	Poor performance when accessing the list of ACLs
IKB-3459	In FORMS - replace_check and replace_radio cannot replace with <label for⇒
IKB-3460	Checkboxes and radio buttons should be named with as before if only one value exists for an attribute
IKB-3461	Forced utf-8 encoding on response traffic without explicit encoding may conflict with static resources with norwegian characters
IKB-3462	Backport support for confirm<form> in forms. Very often used by ajax-submits
IKB-3464	Consider changes of default behavior of SELECT, RADIO and CHECK items in FORMS
IKB-3465	UpgradeAll to 7.0 contains error when restructuring content in document
IKB-3466	Tilgang til dokumentattributter i presentasjonsstil med bruk av ekstern kilde
IKB-3467	/console/user: Permission overview doesn't group the result correctly
IKB-3468	Combined External datasource doesn't extract attributes for more than one instance of the document
IKB-3472	Language - Not all of the prompts were displayed in console/advanced/language/metadata
IKB-3473	Invalid comment in javascript generated by ikb_ce_custom_editor_portlet
IKB-3476	Data from the tables IKB_PORTLET_SEARCH_DIALOG_DET and PK_IKB_PORTLET_ACTION_LIST are not exported
IKB-3477	FreeMarker ${context.commonScripts} should honor use expanded resourecs from dev mode
IKB-3478	Page component runner should honor use expanded resourecs from dev mode
IKB-3488	Spring Security infrastructure should send application events
IKB-3491	/ikb$console/development/database/report_database/parameter må bruke gv$ og ikke v$ når det er RAC cluster.
IKB-3494	Non-WebDAV link from Office intercepted by WebDAV filter
IKB-3496	CloudConvert fails if compile jackson-dataformat-xml is present on classpath
#1	ContentQueryRow: getValue(String) and getValue(Expression) should return same value

5.16. Release 7.3

5.16.1. New features

Issue#	Description
IKB-3322	When copying a group - let the user decide if acl membership also should be copied
IKB-3356	Support WebDAV @ResourceController extensions
IKB-3372	Simplify continuous deployment for plugin development
IKB-3383	Support for iKnowBase Classic Portlet implementations using Java SDK

5.16.2. Improvements

Issue#	Description
IKB-2794	Installation properties: Enabled edit of property name in administration gui
IKB-3228	Move Content Studio to an external plugin project
IKB-3242	Increase document.url from 300 to 4000 to allow long urls
IKB-3245	Support running sqlplus as SYS from the iknowbase installation program (quickstart)
IKB-3297	ikb_imageedit: timeout bør være konfigurerbar
IKB-3335	Add support for line shift etc in description field of patchsets
IKB-3350	Add the command "dbscriptAsSys" to the setup program
IKB-3355	Add BitKinex and GoodReader User-Agents to default WebDAV filter
IKB-3357	WebDAV requests should not be sensitive to trailing /
IKB-3358	Avoid updating document.xml_data more than once in schema.sql for 7.0
IKB-3359	Support optional connection tweaks for Setup connection in case of long running commands
IKB-3368	Service API should not log unauthenticated user as ERROR
IKB-3369	Service API: Support create object with specified GUID
IKB-3374	Content Query: Support regexp_like for String fields
IKB-3376	ContentQuery: Add support for up and down traversal
IKB-3381	Align Document and DocumentModel objects
IKB-3385	Upgrade from Spring Boot 1.3.5 to 1.3.7
IKB-3386	Upgrade from Jetty 9.3.9.v20160517 to 9.3.11.v20160721
IKB-3387	Upgrade from Spring Session 1.2.0 to 1.2.2
IKB-3389	LDAP profiles should support wallets
IKB-3390	Guid of valuelist values should be visible in Metadata manager
IKB-3392	Upgrade from Spring Boot 1.3.7 to 1.3.8

Issue#	Description
IKB-3396	Usersync: Be able to configure external_key on DOCUMENT and DIMENSIONS
IKB-3397	IKB$console → Database → Report → iKnowBase → Time consuming report doesn't report java based queries
IKB-3398	Upgrade from Jetty 9.3.11.v20160721 to 9.3.12.v20160915
IKB-3404	Patchset: Add link to selected object
IKB-3405	Content Query should contain trace information about the caller
IKB-3427	Enable detailed logging for Batch EmailSender

5.16.3. Bugfixes

Issue#	Description
IKB-3239	Setup: SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
IKB-3403	Content Query getItem should return Optional empty if the item has not been selected
IKB-3416	Development mode toolbars, statusbars and components broken since 7.1
IKB-3391	Edit with WebDAV on create from template does not start automatically in IE
IKB-3367	Error messages in ikb_error_tab when adding target in Development tools
IKB-3371	Form with optional format: Selecting format as text will hide the text input field if initially stored without text
IKB-3411	Forms: Should show selected dimensions in select box even if they are not selectable anymore
IKB-3349	HTML-output from iknowbase.sh should not refer to script requiring internet access (e.g log from upgradeAll)
IKB-3393	IKB$console → Report → iKnowBase → Errors gives errors when viewing aggregated result
IKB-3401	ikb$console→Parameters: Set default condition when creating iKnowBase parameters
IKB-3377	ikbFile print url even if it does not have file
IKB-3409	iknowbase.request.log is missing from runtime → logging → targets
IKB-3326	Improve performance in LDAP Sync - group mappings should use a POPUP instead of a list
IKB-2183	LDAP-sync from AD to IKB. Changes in OID_SYNC.retrieve_user_information
IKB-3408	Not possible to clear cache of ikbBatch PageEngine
IKB-3347	ORA-12899: value too large for column "IKB"."T72_CALL_IKB_POPUP_ERROR"."ERRORMSG" (actual: 306, maximum: 300)
IKB-3354	Performance - v_acl_readable and v_acl_protected are slow when #members are high

Issue#	Description
IKB-3384	Precheck of patchset does not report on missing component
IKB-3364	Presentation style: Link with text source "from the label" where label is blank print value of "link to"-attribute
IKB-3365	Presentation style: When using "revert from template" styleset-setting is lost
IKB-3394	Remote precheck commits data to 'base'-tables after precheck
IKB-3353	Remove the column ATTRIBUTE.UPDATEABLE - Its no longer in use
IKB-3370	Service API get_document logs UNKNOWN USER in error_tab if document cannot be found
IKB-3360	Should be able to search for free text input in forms customization
IKB-3414	Subsystem filter in user administration (user, group, acl) does not support and should not display subsystem filter
IKB-3400	Support multiple values as input to viewer attributes like Related documents, document ID and parent ID
IKB-3419	Support use of text elements defined on the template for a template viewer
IKB-3395	Tinyprofiles in forms should honor attribute definition order and individual width
IKB-3361	war plugin with starter-singleproject cannot resolve BootEmbeddedApplication
IKB-3375	WebLogic authentication plugin broken on WebLogic 12.2.1
IKB-3420	Support use of text elements defined on the template for a presentation style
IKB-3422	CICO icon missing if checked out by other user
IKB-3423	Saving a form with a XML-attribute without content will result in ORA-31011
IKB-3424	Java Form Macro: Attribute label does not support proper language resolution
IKB-3425	Import: ikb_preference_store.value is not updated if the value has been remapped
IKB-3426	Java Form Macro: Reference labels should support proper language resolution

5.17. Release 7.2

5.17.1. New features

Issue#	Description
IKB-3224	Upgrade Activiti to version 5.19
IKB-2903	Support for persisted and replicated sessions in the quickstart webServer
IKB-3184	IKB-824 JavaScript API: Delete document
IKB-3319	Document Service API: Support IKB$PARENT_DOCUMENT_ID in service_api (save document attribute)
IKB-3321	Allow sort on CLOB-columns

Issue#	Description
IKB-3334	Stored PL/SQL Function in Presentation style should allow return types like NUMBER and DATE

5.17.2. Improvements

Issue#	Description
IKB-725	Utilize result caching in database 11g
IKB-1053	Homeplace: Add mechanism to find homeplace usage for a document
IKB-1436	Support on-the-fly compression of text content in iKnowBase Web Server to reduce transport
IKB-1507	The old javascript /ressurs/evita/iKBDesktop/javascript/iknowbase-common-full.js should be removed
IKB-2261	Implement on-demand generation of image variants
IKB-2416	WebDAV lock infrastructure must be persisted to database
IKB-2847	Support case sensitiv search in ikbStudio
IKB-3023	iKnowBase Web Server request log should use NCSA Combined Log Format
IKB-3038	Add text to first <option> tag in value-list generated dropdown
IKB-3112	Run iKnowBase on top of Spring Boot
IKB-3186	Reload component after delete document rather than refresh entire page
IKB-3187	Content Studio: Reuse deleteDocument function from ContentStudio
IKB-3197	WebDAV lock infrastructure must be extensible from Java
IKB-3198	WebDAV lock timeout should be configurable
IKB-3205	Automatically fix normalized GUID-values in DOCUMENT and DOCUMENT_ATTRIBUTE
IKB-3206	iKnowBase Console: Automatically trim search string
IKB-3209	Cluster support for WebDAV
IKB-3215	Refactoring of iknowbase-common-full.js
IKB-3216	Error when replacing :PARENT_ID in form template code
IKB-3218	No need to print the error message when a target is without a page reference
IKB-3223	SAML authentication failure due to configuration error should log cause to error log
IKB-3225	Create FreeMarker-variable "viewer.logic.hasContainer" to show if a contentViewer has ajax-ready container
IKB-3229	Document Service API: Declare explicit SerialVersionUIDs in Serializable classes
IKB-3252	Remove default value for valid from/valid to

Issue#	Description
IKB-3253	Display NLS_DATABASE_PARAMETERS and NLS_INSTANCE_PARAMETERS in database report
IKB-3254	Should show "name" of attributes in picklists in ikbStudio instead of label.
IKB-3259	Convert LOBS to SECUREFILE
IKB-3266	ImageEditor should support CMYK-encoded jpeg images
IKB-3267	ImageEditor should support PSD images
IKB-3270	Remove embedded /index.html
IKB-3272	LOG_DOCUMENTS: Support both aggregated and simple log (one row per user per document, with or without counter)
IKB-3274	Content Server should support option for specifying configuration file for file converter
IKB-3275	File Converter should support custom configuration file
IKB-3277	Performance improvements in Content Viewer
IKB-3280	ContentQuery: Implement contentLinkBuilder for a ContentQueryRow
IKB-3281	Support UTF-7 charset
IKB-3285	Plugin samples: Move outside com.iknowbase package and demonstrate component scan
IKB-3286	Plugin setup: Add sample project for both single and multiproject builds
IKB-3288	Support fingerprinted URLs for static resources for improved browser caching
IKB-3291	During an upgrade the iikb_format.name should not be updated if it already exists
IKB-3298	URL generated by the viewer should always be cacheable
IKB-3299	Remove support for Oracle Secure Enterprise Search
IKB-3302	Authentication providers should support restriction configuration
IKB-3304	Log file should by default be rotated daily
IKB-3306	Change to iKnowBase specific session cookie name by default
IKB-3310	Process Studio: Support composite form keys
IKB-3313	Document Service API: Should not be dependent on an initialized db connection
IKB-3314	Delay iKnowBase Web Server shutdown handler until just before port bind to minimize downtime
IKB-3320	Stopped by DB lock when importing patchset
IKB-3330	UpgradeAll should start a gather_schema_stat-job
IKB-3345	Improved transaction handling

5.17.3. Bugfixes

Issue#	Description
IKB-2272	Picklist: Preselected values are removed after a new document is created
IKB-2329	Popups from edit-link does not open in center of screen anymore
IKB-3179	Last change date of attributes should not be updated when saving solr configuration
IKB-3200	WebDAV form based login static resources should not be protected
IKB-3201	WebDAV default User Agent expression should include "ms-office" and "MSOffice"
IKB-3203	Improve performance on queries against ikb_error_tab
IKB-3207	Document Service API: All operations should have a default value
IKB-3208	auth-ie7andie8.css refers to missing resource ../icon/saml16.png
IKB-3210	Desupport of Oracle Database 10G
IKB-3211	Document Service API: Parent document attribute instantiated with the parent document's external key is not saved by saveDocumentAttributes
IKB-3217	Poor performance in ikb$console when searching for a target
IKB-3221	Cannot delete viewer
IKB-3222	Norwegian characters in solrconfig.xml → Solr fails to start
IKB-3226	The "iKnowBase Data" transport set is configured with wrong actions
IKB-3230	Documentation: Update the Content Studio chapter in the Development Guide (not updated after CS was implemented as a plugin)
IKB-3231	Remove JS-function call_ikb_popup
IKB-3233	Process Studio: Render variable updates of type "serializable" as XML for a process instance
IKB-3235	Form: Numeric or value error in ikb_ce_custom_editor_portlet, line 4523
IKB-3236	Ikoner i meny mangler (src-url "http" i stedet for "https")
IKB-3237	Create new documents with a parent you don't have read access to fails
IKB-3240	The printout of context variables exceeds it limits
IKB-3241	Document toString fails if documentIdentity is null
IKB-3243	DataHandler / DataSource returned from the Document Service API should have filename in getName(), instead of blank
IKB-3244	Content Studio: In the image picklist, the add image button and edit image action are not available for users without Content Studio access
IKB-3246	Form: User without creatable privilege to a form doesn't have access to edit a document in that form
IKB-3248	ikb$console: Save form defaults fails if the attribute acl doesn't have a default value
IKB-3250	Form: Save fails if a form contains a related object which the user doesn't have access to

Issue#	Description
IKB-3251	Last updated date is set on the form I'm copying
IKB-3263	ikb_portlet_prefs.create_cacheable_ulr is ignored when returning a BLOB-attribute
IKB-3264	Trouble with uploading jpeg images with color profile CMYK
IKB-3269	Valuelist value descripion no longer exposed in ikb$console > metadata management > valuelist
IKB-3273	IKB$console → Runtime → Monitor doesn't show detailed timed statistics for components within a page
IKB-3276	Forms: Wrong CLOB-attribute is updated from html-based form when order of attributes in attribute-tab does not match in order in html
IKB-3278	ContentServer accept= does not change filename used by browser
IKB-3282	Order-BY condition on TITLE disappear during upgrade to 6.7 (or higher)
IKB-3289	ikb$console: ikbStudio.css contains reference to knett.evita.no for the iKnowBase logo
IKB-3296	Export does not update setting on traverse-tab in search source
IKB-3303	LDAP authentication should only retrieve required attributes
IKB-3305	Cannot log in with form authentication if domain is configured without public user
IKB-3308	/ikb$console/runtime/monitor/pageRunner is broken
IKB-3311	Process Studio: View process instance diagram causes java.lang.NoClassDefFoundError: Could not initialize class sun.awt.X11GraphicsEnvironment
IKB-3318	Import of iKnowBase transportset iKnowBase_Data.dmp should not create domain
IKB-3324	Document Service API: No validation in Service_api on LANGAGE_REFERENCE
IKB-3325	Dimensions - It should not be possible to move a dimension to its own child dimension
IKB-3327	Last changed date on page is not updated when editing a template in a template viewer
IKB-3329	Document Service API: ikb_service_api.save_document and save_document_attributes should not require a logged on user
IKB-3331	<IKB:SAVE_FUNCTION> missing in documentation
IKB-3332	Search source - Select dynamic attributes gives ORA-06502
IKB-3333	Support pagination in User Administration → Users → Acl Membership
IKB-3342	Inline templates didn't handle template labels (issue if the template was detached)

5.18. Release 7.1

5.18.1. New features

Issue#	Description
IKB-2222	Support [@include] of FreeMarker templates
IKB-2649	Order values in valuelist

5.18.2. Improvements

Issue#	Description
IKB-440	[HD-22532] Additional configuration options for delete dialog
IKB-544	ikbStudio - Error handling - comments
IKB-896	Change default option when deleting subdocuments
IKB-1027	ikbStudio - Batchjob - copy
IKB-1280	Support custom javascript validation function in search source
IKB-1291	Support callback in delete dialog
IKB-1619	Add search-feature to standard page for expired documents (/cs/tools/expired)
IKB-2168	Image picklist: Owner of an image should be able to edit it from the picklist, even when the image doesn't have an acl
IKB-2198	Use of BETWEEN where parameter is greater and smaller than a value
IKB-2573	Search sources and Forms: when dimension attribute is style "select" all dimensions should be selectable by default
IKB-2578	Make "delete"-function use Notification to confirm, rather than modal popup
IKB-2626	New default for edit and delete icons in templates
IKB-2757	Make save function available as tag in html insert/update
IKB-2779	Security: Support CSS override configuration for login form
IKB-2795	Installation properties: Trim tab from input
IKB-2853	Remove xnet application and metadata from distribution
IKB-2881	Content Studio: Add "show as html" and "show as txt"
IKB-2939	ikbStudio: Schedules - Run Once
IKB-3000	Change include directives in solrconfig.xml to support SOLR_HOME outside Solr distrubution
IKB-3026	Trim blank characters in quickstart-property files
IKB-3074	Support sorting of value lists in forms
IKB-3091	Implement responsive design for the logon page
IKB-3094	Make jQuery-version user selectable
IKB-3096	Upgrade to Spring Security 4
IKB-3109	Search code labels should be editable

Issue#	Description
IKB-3110	Replace the multiselect with a popup in Export → Excluded subsystems
IKB-3117	Performance issue with /cs/statistics
IKB-3122	Content Studio: Do not exclude/include documents based on document types on the /cs/publish and /cs/tools/expires pages
IKB-3123	Log error message if Java Cryptography Extension (JCE) is not installed when loading dependant modules
IKB-3124	Content Studio: The image form doesn't save the form guid
IKB-3130	Image variants should have subsystem
IKB-3131	Need of a SQL_HINT for the outer part of a query (viewer/search)
IKB-3135	FreeMarker ParametersModel should implement ScalarModel (String), for simple debug output
IKB-3141	Disable homeplace
IKB-3148	Should be able to perform remote precheck of patchset between errata-versions
IKB-3156	Form Macro API: Options in selectlists should have tooltips
IKB-3157	Convert shared templates used by a single component to inline
IKB-3160	Content Studio: Use relative references to static resources in contentstudio.css
IKB-3161	Support for multiple SAML2 service providers on same instance
IKB-3162	Process Studio: Improvements implemented at SKOP
IKB-3163	Fix reported issues from healthcheck (TOAD)
IKB-3164	From ikbConsole, make it possible to search for a template guid used within a page
IKB-3166	Popups: Search and select using keyboard only
IKB-3175	IKB Service API: Add child operation to the delete document function
IKB-3176	A SearchViewer should not render an error message when no search source is specified
IKB-3177	OID_SYNC: Paging filter & character set conversion feilmelding
IKB-3181	Remove support for security configuration "autoform"
IKB-3189	Administration console should be reachable on WebDAV hostnames
IKB-3191	Upgrade gradle in development toolkit for Java from 2.3 to 2.9
IKB-3192	Dependency on iknowbase-webapp should not include javax.servlet-api directly
IKB-3195	Service API: Support delete document version

5.18.3. Bugfixes

Issue#	Description
IKB-596	Content Studio: Advanced search dialog - some info are places outside of 'frame'

Issue#	Description
IKB-706	Picklist/explorer and root dimension
IKB-1580	Forms: Displaying clobs (>4000 chars) causes ORA-06502 in procedure IKB_CE_CUSTOM_EDITOR_PORTLET.REPLACE_DISPLAY
IKB-2189	It is not possible to use a script target as target for text in a search source configuration
IKB-2541	Target: Wrong a-tag on title generated when popup and overwrite homeplace
IKB-2558	Forms: buttons should be disabled on click (not after validation).
IKB-2858	image archive: arbitrary file upload
IKB-3064	Valid valuelist values in filter of search source does not reflect the sort order
IKB-3086	Menu items without URL_TYPE are not possible to maintain
IKB-3087	Milton Security Advisory
IKB-3089	Process Studio does not support deployment to a non default context root for iKnowBase web app
IKB-3097	Set/unset bookmark can create invalid redirect urls
IKB-3101	Filter values on dimension (mappe/DIMENSION_ID) doesn't filter on the input values
IKB-3111	CVE-2015-5211 RFD Attack in Spring Framework
IKB-3113	ORA-06502: PL/SQL: numeric or value error: hex to raw conversion error in ikb_show_content
IKB-3116	Unable to select ACLs for Export
IKB-3120	Java-based image form doesn't save form_guid
IKB-3121	Return an error message if editing a document with a form → target → without a page
IKB-3126	Development Studio dimension navigator: save and close does not work properly
IKB-3128	Deadlock detected when indexing document to SOLR
IKB-3132	Security risk when building call_ikb_popup_dynamic
IKB-3133	Error template should be named "error" (lowercase)
IKB-3134	ContentViewer should handle titles of full length
IKB-3136	External datasource: dates does not behave as dates.
IKB-3138	Content Studio: The save button in the image form should be disabled when form is submitted
IKB-3139	Content Studio: Do not show input fields which are extracted from image metadata in insert mode of the image form
IKB-3142	The queue name in dbms_aq.enqueue in ikb-packages should be prefixed with user name
IKB-3143	Events is not executed for subdocuments when deleting the master

Issue#	Description
IKB-3144	WebDAV should not require hostnames config when relying completely on user agent detection
IKB-3146	ikbStudio: User directory → edit User → The "Copy" button has disappeared.
IKB-3147	Form: Automatic update of HTML template for a form fails if a new attribute is added
IKB-3149	A Save from Form check in the document automatically
IKB-3150	ikbStudio is very slow if we have a lot of data of an instance
IKB-3151	Not possible to read help column if template-editor is wider than default
IKB-3153	Removed functions and procedures
IKB-3154	Events - Delete event is executed before the delete-statement, should be possible to execute it after too
IKB-3155	Content Studio: Don't allow save of news article without title
IKB-3159	Conditional loading of modules with default=true cannot be disabled
IKB-3165	RequestEntryFilter logs metrics as RequestLogFilter
IKB-3178	Avoid using ikb_api in projects
IKB-3182	The JSON renderer doesn't produce valid json, it escapes string using EcmaScript rather than Json string rules
IKB-3183	Solr event: Incomplete text on popup when resending items from exception queue.
IKB-3188	ikbUrl returns blank even if document has link
IKB-3190	Social login using Facebook is broken - JsonParseException
IKB-3194	WebLogic with container mode authentication does not redirect after /private/login/ authentication

5.19. Release 7.0.4

5.19.1. New features

No new features.

5.19.2. Improvements

Issue#	Description
IKB-3161	Support for multiple SAML2 service providers on same instance

5.19.3. Bugfixes

No bugfixes.

5.20. Release 7.0.3

5.20.1. New features

No new features.

5.20.2. Improvements

No improvements.

5.20.3. Bugfixes

Issue#	Description
IKB-3122	Content Studio: Do not exclude/include documents based on document types on the /cs/publish and /cs/tools/expires pages
IKB-3124	Content Studio: The image form doesn't save the form guid
IKB-3128	Deadlock detected when indexing document to SOLR
IKB-3132	Security risk when building call_ikb_popup_dynamic
IKB-3138	Content Studio: The save button in the image form should be disabled when form is submitted
IKB-3142	The queue name in dbms_aq.enqueue in ikb-packages should be prefixed with user name
IKB-3148	Should be able to perform remote precheck of patchset between errata-versions
IKB-3149	A Save from Form check in the document automatically

5.21. Release 7.0.2

5.21.1. New features

No new features.

5.21.2. Improvements

No improvements.

5.21.3. Bugfixes

Issue#	Description
IKB-3097	Set/unset bookmark can create invalid redirect urls
IKB-3111	CVE-2015-5211 RFD Attack in Spring Framework: Upgrade Spring Framework from 4.2.0 to 4.2.2

5.22. Release 7.0.1

5.22.1. New features

No new features.

5.22.2. Improvements

No improvements.

5.22.3. Bugfixes

Issue#	Description
IKB-3087	Milton Security Advisory: XML parser
IKB-3093	Menu items without URL_TYPE is not visible in ikb$console component for menues

5.23. Release 7.0

5.23.1. New features

Issue#	Description
IKB-472	Support for error procedure in ldap user synchronization
IKB-2010	Sync support for OpenDJ
IKB-2683	Java-API for running a DimensionQuery
IKB-2689	Java-API for running a ContentQuery
IKB-2856	Service that generates java-class containing all metadata-definitions in a repository.
IKB-2860	Java-API for generating QuickLinks
IKB-2906	Chained templates in iKnowBase classic
IKB-2907	Support Nashorn (javascript) scripts for templates
IKB-2908	Support form-based authentication with WebDAV
IKB-2911	Support Spring Forms for editing iKnowBase documents
IKB-2914	Create screencast to demonstrate DevelopmentToolkit setup
IKB-2959	Remove support to create new pres.styles of type FORM and TABULAR
IKB-2961	Add support for editing XML-content using iKnowBase Form
IKB-2971	Create SolrServer-objects from java plugin

5.23.2. Improvements

Issue#	Description
IKB-857	Make it possible to refer to forms directly from viewer, not only quicklink (a form is also a quicklink)
IKB-2415	Missing userinfo in WebDav locks list
IKB-2737	Docx4j: Security alert CVE-2012-0213 - poi-scratchpad
IKB-2738	Image variants - handle delete of an existing
IKB-2783	Implement Content Studio as a plugin
IKB-2813	Installation properties: Instance qualifier should default to *
IKB-2822	Document iKnowBase Global Prefs
IKB-2832	Documentation: ikb_mailsender package for sending emails
IKB-2833	Simplify ikb_mailsender API
IKB-2851	Forms: Dato og tid uten Ext kalender på dato attributter
IKB-2887	OID_SYNC should return an error_code when running a single dn with failure
IKB-2905	Link to RSS Feed in ikbStudio is misleading
IKB-2917	Disable atmosphere classpath scanning in Instant for quicker startup
IKB-2918	WebDAV server should be able to co-exist with Viewer on / on the same hostname
IKB-2933	Performance in Forms with large select lists
IKB-2936	Func_Save_Document in Form should validate session and timestamp before other tests
IKB-2937	Security: LDAP authentication option userDnPatterns should be converted to userSearchBases
IKB-2945	Remove iKnowBase add-in for Microsoft Office
IKB-2957	Instant: Upgrade atmosphere to runtime 2.3.4 with javascript 2.2.12
IKB-2958	Service API: Populate object reference label when a metadata object is retreved using the service api
IKB-2964	User CloudSolrServer for searching in SolrCloud
IKB-2970	Allow more characters in External Datasources (tables and where-condition).
IKB-2973	Remove Oracle BPEL-specific components
IKB-2985	WebDAV browser integration change from NPAPI plugin to protocol extension
IKB-3002	Instant - Add blockers to default broadcasters
IKB-3006	IKB_SERVICE_API: IKB$FILE - all files should be saved in binary_indexed
IKB-3008	Service API: Expose objectGuid for document attribute value in Java- and WS-API
IKB-3010	WebDav script should be exposed for administration in /ikb$console/development/advanced/mimetypes
IKB-3013	Query conditions in Viewer : Allow search for NULL / NOT NULL for document fields

Issue#	Description
IKB-3014	Add SVG images to list of registered mime types
IKB-3015	Change SOLR.xml files to run 5.x of SOLR
IKB-3016	ikb_common_objects.get_prompt should return something else then Undefined if a label exist in another language
IKB-3017	Upgrade Solrj client library to v5.x
IKB-3021	Batch Email Sender should be default for sending emails on new installations
IKB-3022	Batch Image Editor should be default for image conversions on new installations
IKB-3024	Removed functions and procedures in 7.0
IKB-3027	Security: Social module should be enabled if SAML module is enabled
IKB-3032	In the ServiceAPI, create shortcuts for settings references on the Document object
IKB-3033	Display a link to the selected image for image attributes (in forms)
IKB-3044	Search dimension triggered by ENTER in ikb$console, image- and document archive
IKB-3051	Support Microsoft Edge (Windows 10) browser
IKB-3059	IKB_ERROR_TAB : Log page_component_guid is available
IKB-3067	FreeMarker API: Extend HTML-escaping to fully support all HTML4-entities
IKB-3069	Lightweight Oracle Text Index
IKB-3071	Documentation: WebLogic: Http basic auth does not work with iKnowBase in Spring Security non-container mode
IKB-3076	org.eclipse.jetty.io.EofException should not be logged as ERROR
IKB-3084	Use Oracle Text index on Title
IKB-3085	Navigate to parent and child dimensions from the dimension edit panel without reloading the dimension tree

5.23.3. Bugfixes

Issue#	Description
IKB-2192	Fields in service-api documentation is not sorted
IKB-2741	Test Case ID IKB-1746 :: Version : 1 /SYSTEST/Interaction/Target/ListenerUrl - Unexpected URL format
IKB-2774	Documentation: Documentation of types is missing in the iKnowBase PL/SQL API documentation
IKB-2793	Wrong link on external datasource parameters in viewer
IKB-2835	Security: Activation token available for social connection even if activation configuration is disabled
IKB-2840	Edit with webdav links missing after upgrade from 6.5 to 6.6

Issue#	Description
IKB-2888	TaskWizard fails on "cancel"
IKB-2924	Fix "reference" values returned for reference objects from content viewer
IKB-2926	Documentation for WebDav in dev guide contains removed functionality
IKB-2935	Implement automatic cache-refresh on save from Development Studio
IKB-2938	WebDAV: LOCK on existing locked resource held by different user may result in 409 Conflict
IKB-2942	Form based login with rememberMe does not honor configuration option rememberMeTokenValiditySeconds
IKB-2943	WebDAV lock refresh locks with username=token instead of username.
IKB-2946	Microsoft Account/Live authentication broken
IKB-2947	The acl popup selector is not visible in forms
IKB-2952	Instant: Blocks chrome browser for 5 minutes during navigation
IKB-2953	DocumentAttribute and DocumentAttributeValue constructors must handle null-values
IKB-2955	IKB_GLOBAL_PREFS overwritten during upgrade from 6.6 to 6.7
IKB-2956	Presentation style: Link elements and "Text Source" doesn't work as before
IKB-2960	When editing attributes of type F, datatype is cleared from ATTRIBUTE.DATATYPE
IKB-2963	Sortering på lagret funksjon i presentasjonsmal
IKB-2965	WebDAV logs NotAuthorizedException when authenticated and resource was not found
IKB-2967	Presentation style: Unable to add external attributes as order columns if the attribute is used as a select column
IKB-2968	Single instance LDAP-sync on a group can remove members
IKB-2969	Upgrade spring-social-facebook to v2.0.0
IKB-2974	ikbStudio - User list - showing <current user> in created by/last changed by when db field actually is null
IKB-2977	ikb_ce_custom_editor_portlet.rebuild_runtime_params - numeric or value error: character string buffer too small
IKB-2978	Content Studio: Picklist doesn't reset dimension start point upon reopen
IKB-2979	Export: Precheck against a remote schema doesn't work
IKB-2982	IKB_AUTH_TOKEN.TOKEN_TYPE should be 10 byte long
IKB-2983	Redirect after activation link does not honor redirect url param
IKB-2986	Quickstart JAVA_OPTIONS=-Dlog4j.properties=log4j-trace.properties is not honored
IKB-2987	SAML authentication button has prefix "Log in using ". Should be removed.
IKB-2988	Order by clause on a database function return errors

Issue#	Description
IKB-2989	NullPointer in Process Studio if group is member of ACL PS_PAGE_ACCESS
IKB-2990	Save from "search sources→style" in ikbConsole return errors
IKB-2991	Forms: Validation of mandatory text content fails with Javascript error
IKB-2992	Unable to copy or edit document type in 6.7
IKB-2994	Image Scaling event did not create missing image variants for images
IKB-2995	Instant - Duplicate messages received and private messages broadcasted to all
IKB-3004	Precheck function in Export causes deadlocks when retrieving valid database links
IKB-3005	Import of data from IKB_USER and DOCUMENT can result in FK-error
IKB-3007	Cannot use target type script as target after insert in form
IKB-3009	Document.Content_type and ikb_format.content_type should be removed
IKB-3019	Metadata Management > Dimension: Dimension search field loses focus when search is performed
IKB-3020	iknowbase.request.log is missing info about user
IKB-3028	Security: CVE-2014-0107 regarding SAML module and xalan library
IKB-3029	Instant user may sometimes fail to leave topic
IKB-3036	Last changed date should be updated when disabling/enabling component on a page
IKB-3037	SolrClient.getRowSet() fails with NullPointerException when first document in SolrResponse is a non-iknowbase document
IKB-3046	IKB_CONTENT_VIEWER - l_edit_onclick sprekker på lengde
IKB-3048	Get_document_ident doen't throw error if document_id or document_guid is invalid
IKB-3056	ORA-00600 errors might occur when compiling PL/SQL with native compiler
IKB-3058	Cannot edit personal acl from form
IKB-3061	TinyMCE 4 plugin: Insert from picklists gives a javascript error in IE
IKB-3068	Security issue in HTML portlets
IKB-3078	When the parent of a dimension is changed, the dmension tree is not updated correctly
IKB-3079	ORA-32036: unsupported case for inlining of query name in WITH clause occurs in content viewer
IKB-3080	Copying forms must not copy created_date and created_by
IKB-3082	FreeMarker Model: ?has_content should return false for a property which doesn't have a value (ie non-existent document attribute)
IKB-3083	Search source traversal with connect by clause and tabular presentation style fails

5.24. Release 6.7

Issue#	Description
IKB-238	ACLadmin - change of owner_id
IKB-547	API: The param child operation is missing from ws and java api for save valuelist
IKB-1632	Use of labels should be consistent througout Content Studio
IKB-1821	ServiceAPI.SaveAttribute does not honor the use of externalkey in valuelist reference
IKB-1916	Image Archive: It should be possible to ctrl+click to select multiple objects.
IKB-2295	Patch set: should be set using regular save-button in component
IKB-2342	Enable keyboard navigation in Ext based picklists in ikbStudio
IKB-2430	Dev toolkit: Add iKnowBase doc and source for use in IDE
IKB-2464	Need default_language concept to avoid hardcoded (and incorrect!) language
IKB-2505	Instant: SecureTokenEngine$TokenExpiredException: Token time-to-live has expired
IKB-2509	Instant: onError callback in js api is not called when the server throws an error
IKB-2585	Instant: Explicit unsubscribe may result in a hanging close-call from browser
IKB-2600	Webdav: Support for Chrome on Mac
IKB-2630	Content Studio: Removed valid filter values for the information type search criterion
IKB-2640	If the thumbnail variant is not configured for use in editors, the thumbnail doesn't show in step 2 of the image picklist wizard
IKB-2708	Create single set of custom database error codes, for easier use on client
IKB-2711	Merge all applications to a single web-app, with configuration options to enable/disable
IKB-2715	Examine and possibly remove external flag
IKB-2740	Content Studio: Update new image size in the lower right corner upon crop image (image edit)
IKB-2742	Make WebDAV vhost-capable
IKB-2744	Close dimension popup without prompt (when opened from Activiti Form in IE)
IKB-2745	Authentication form: remember me out of place if no social modules are available
IKB-2746	Sort in picklist (related objects) removes documents
IKB-2747	ikbStudio: Attribute labels used in popups not html encoded
IKB-2748	Content Studio: Image variant labels not encoded in image picklist step 2 (editor)
IKB-2749	"Service API: Save operation ""REPLACE"" is not exposed in saveOperationEnumeration"
IKB-2750	Add info on servlet and filter registrations to ikb$console/java/webapp.

Issue#	Description
IKB-2751	configureUser.sql should not create ikb_global_prefs, since it runs as sys
IKB-2755	Service API: save_valuelist should throw an exception if a new value's external key violates the unique constraint
IKB-2756	Service API: If a valuelist's subsystem is referenced by external key, it is not saved by save_valuelist
IKB-2758	IKB_SOLR.validate_event_changelog return error if removing from changelog
IKB-2759	Image/link references not logged in Document_usage
IKB-2761	Increase size of instance qualifier in installation properties
IKB-2763	Document all things related to single webapp-concept
IKB-2764	"Add outside-in ""XML export"" support to iknowbase-fileconverter"
IKB-2765	Spring Security: Support for ADFS single sign on (SAML)
IKB-2767	Clean up the way spring beans are instantiated
IKB-2768	EXPORT: Details data is exported even if the master should be excluded by subsystem constraints
IKB-2769	EXPORT: It should be possible to export documents referred in HTML (set by tinyMCE)
IKB-2770	Installation property priority is broken
IKB-2771	EXPORT/IMPORT: Need for a more fine grained control when importing data
IKB-2772	Upgrade WebDAV Milton library from 2.5.1.8 to 2.6.3.2
IKB-2773	Upgrade Instant atmosphere core from 2.1.4 to 2.2.3 and js from 2.1.6 to 2.2.5
IKB-2776	Instant: ikb$console - Add broadcastercache statistics to topic details report
IKB-2782	WebDAV: Cannot call getOutputStream() after getWriter() [WebLogic]
IKB-2784	Migrate ikbStudio away from wicket, for easier maintainability
IKB-2785	"Change priority of properties from installation_properties table to be ""last"" rather than ""first"""
IKB-2786	Dimensions not available for tagging are available
IKB-2787	Trenger samme user i Java og PL/SQL
IKB-2789	Upgrade activiti to version 5.16.4
IKB-2790	Add Document.setContent-methods that do not require a DataHandler
IKB-2792	Security: Support for Microsoft account / Windows Live social login
IKB-2796	Quickstart: Support specifying SSL certificate alias
IKB-2798	Minify the Ext JS 4 which is distributed with iKnowBase
IKB-2800	Security: Simplify security configuration through rule based authentication router
IKB-2801	Incorrect sort of add attributes in search form
IKB-2802	Logging: Add trace logging option for http request and response headers

Issue#	Description
IKB-2803	Logging: Request log filter should also include security area
IKB-2804	Move /ikbBatch administration console to ikb$console
IKB-2805	Security: Add support for a HTTP Header forced authentication mechanism directive
IKB-2806	Numeric fields in Forms should support negative numbers
IKB-2807	"Remove field ""Length"" from attribute"
IKB-2809	Restructure iKnowBase administration console
IKB-2810	Security: Manual login at /ikb$login is broken
IKB-2811	Improve presentation of unhandled exceptions
IKB-2812	SmartResourceManager should include all files referenced by Resources-model
IKB-2814	Security: Internal errors during security filters should not display full stacktrace to client
IKB-2816	Security: LDAP UsernamePassword authentication provider configuration index requirement for userDnPattern was not documented
IKB-2817	Security: LDAP authentication broken with NullPointerException at UserContextFactory.java:79
IKB-2818	"Endre fra ""menues"" til ""menus"" i Development Studio menus"
IKB-2819	Content Studio: Implement filter for dimension navigator
IKB-2821	Publish artifacts to artifactory maven repository
IKB-2823	Documentation: ImageEditor batch service
IKB-2824	Documentation: PageEngine batch service
IKB-2825	Documentation: Solr Search Server in Installation Guide
IKB-2826	Documentation: EmailSender batch service
IKB-2827	Using quickstart, enable loading jar files into the web application without rebuilding war
IKB-2828	Development mode: The toolbar should not be placed on top of (ie hide) other elements
IKB-2829	Security: Social signup URL configuration is not honored
IKB-2834	ikb_content_validator.validate_and_log return errors
IKB-2836	Add the condition ISNULL/ISNOTNULL to the Parent-attribute
IKB-2839	Security: LDAP authentication with multiple user bases fails if not found in first userBase
IKB-2840	Edit with WebDAV links missing after upgrade from 6.5 to 6.6
IKB-2841	Change RequestModel File-methods to expose servlet-api mechanism instead of spring-mechanism

Issue#	Description
IKB-2843	FreeMarker should expose title of linked documents (document_link, picture_link)
IKB-2845	Simplify iKnowBase plugin build logic
IKB-2846	Should also search on viewer.displayTitle and ikb_format.* when searching in ikbStudio
IKB-2849	QuickLink entity should have externalKey
IKB-2852	Fatax kan ikke inneholde ulisensiert versjon av cloudzoom
IKB-2854	Allow external_key to be maintained from Form
IKB-2855	Change index on ikb_users.user_name to UPPER(user_name)
IKB-2861	Instant: Upgrade atmosphere to runtime 2.2.4 with javascript 2.2.7 (with patches)
IKB-2862	Consolidate JdbcTemplate creation, and use default fetchSize of 100
IKB-2863	Service API: getUser should return null for user.documentReference if the user doesn't have a profile card
IKB-2864	Indeksere multivalues på et solr-felt
IKB-2865	Unauthenticated attempt on privileged document service operation should trigger authentication
IKB-2866	Internal error when clicking the 'wrong' save-button on event
IKB-2867	Cannot edit documents via WebDAV on mac
IKB-2868	When adding attributes in an event they also appear under patchset
IKB-2869	Login and activation pages: Do not show username and password fields for sites not configured with either ikb auth or ldap
IKB-2871	Certify iKnowBase with WebLogic server 12.1.3 and JDK 8
IKB-2872	WebDAV: EmptyResultDataAccessException should be handled
IKB-2880	WebDAV: editDocument allow plugin blocked by authentication and redirect
IKB-2884	The content studio file upload function should not process files uploaded by non-authenticated user
IKB-2885	Instant: Atmosphere should not scan for annotated classes during startup
IKB-2886	Instant: Close request on a non existing topic should result in HTTP 404 with error message
IKB-2889	Content Studio: Edit office documents using WebDAV from the subdocument list in the document detail page
IKB-2890	WebDAV: WARN ACLProtocol - requested property 'principal-url', but resource doesnt implement AccessControlledResource
IKB-2891	WebDAV: WARN IKBMiltonUserManager - Creating user
IKB-2892	WebDAV: WARN FtpService - createFileSystemView is a mock implementation
IKB-2895	OID Sync removes preexisting dimension types

Issue#	Description
IKB-2898	Security: WebServices: Authentication support for WebLogic container mode
IKB-2899	Database: Deactivated installation properties on new install uses deprecated instance qualifier syntax

5.25. Release 6.6

Issue#	Description
IKB-2733	RegionsModel should keep regions in same order as encountered in page components
IKB-2725	Remove solr distribution from iknowbase (instead shipping only iknowbase-solr-plugin)
IKB-2723	Support Traverse from a SOLR Viewer
IKB-2722	LDAP Sync create new personal cards and dimensions if cn is updated
IKB-2720	ORA-01000 Maximum open cursors in SOLR indexing
IKB-2717	Invalid flag set when importing EXP-<user>-A6EF476661D790B3E040000A18003EF8-iKnowBase-ContentStudio-ImageAndDocumentArchive.dmp
IKB-2716	View crop alternatives in Image Archive - edit image - returns no data
IKB-2713	Secure Token should be supported as HTTP header
IKB-2710	Add FreeMarker variable "noRecordsFoundMessage"
IKB-2709	New FreeMarker directive to run plsql-block and return HTP-written content
IKB-2706	Convert tabular and free form presentation styles to template
IKB-2705	Support for social authentication
IKB-2704	Deprecate support for GlassFish 3 and remove support for GlassFish 4
IKB-2703	Quickstart: java.lang.IllegalStateException: Form too large
IKB-2702	Tooltips generated using ikb_tooltip-package does not encode title
IKB-2701	Under linux, it should be possible to chose java-installation using quickstart property file
IKB-2700	Reuse QueryItems for the lifetime of a QueryRow
IKB-2699	Load permission info into the ot_content_row, for higher fidlity on the java side
IKB-2698	Rewrite ikb_content_viewer and ikb_show_content to load straight into ot_document
IKB-2697	Installation properties: Add comment field
IKB-2696	Upgrade Apache HTTPClient library to 4.3.4 (GA)
IKB-2691	Import doesn't clean up data in IKB_VALUE_SET and TEMPLATE_LABEL
IKB-2687	Picklist based on search source: Generated javascript on radio button has errors

Issue#	Description
IKB-2686	Components in patchset show as not existing when using search in ikbStudio
IKB-2685	Quickstart: Disable LDAP group search for determining roles
IKB-2684	Obsolete functions in action portlet
IKB-2682	Enable viewer and forms to edit a document in both WebDAV and Office plugin
IKB-2681	Header login: Needs to be able to extract username from string for OSSO support
IKB-2680	Import error when importing data from BROWSER_LANGUAGE
IKB-2679	WebDAV: Bad performance when fetching document using WebDAV
IKB-2678	Brødsmuler fungerer ikke helt vha freemarkerbasert meny
IKB-2677	Database support for Spring Security hasPermission ACL
IKB-2675	ApplicationServerUtils: Improve detection of iKnowBase Quickstart for development
IKB-2674	Removed tables LOG_SESSIONS and LOG_DIMENSIONS
IKB-2673	Pres.style: Attributes should have numbering on all tabs
IKB-2672	Removed the old NOARK-support in iKnowBase
IKB-2671	Removed old portlets not in use
IKB-2670	WebService: Authorize using iKnowBase ACL instead of trusted principal from authenticator
IKB-2669	Removed Banner style set (used in Oracle Portal viewers)
IKB-2668	Removed table MENU_DYN_PREFS
IKB-2667	Removed old menu definitions (renderer)
IKB-2665	Removed old object types
IKB-2664	WebDAV FTP debug logging should not expose user credentials
IKB-2663	get_document_attribute mot dimensjonsattributt: Får feil verdi i external_key på returen
IKB-2661	Instant: The requestUserLilst will fail and timeout if the topic is not available. This should instead return immediately with an empty user list.
IKB-2660	Instant: Error log "Message NOT sent due to client error" when topic does not exist should be debug level
IKB-2659	Instant: Logging should not expose raw HTTP headers
IKB-2658	Brukersync-problemer
IKB-2656	Create freemarker-model for "Use expanded resources"
IKB-2653	Spring MVC URI template variables should be available in the iKnowBase WebRequest
IKB-2652	Support for instance qualifier expressions in installation properties
IKB-2651	Standard iKnowBase model objects should be exposed to Spring FreeMarker views

Issue#	Description
IKB-2650	ikb$logout should allow redirect to / and absolute URLs
IKB-2647	"resources" template model should contain information about url lifetimes
IKB-2646	Support configuration of how an image variant should be created (operators to the image processing routine)
IKB-2645	Stored functions doesn't support more than 32K output
IKB-2643	ORA-06533: Subscript beyond count
IKB-2642	Avoid displaying detailed error messages to unauthorized users
IKB-2641	Change security framework to Spring Security
IKB-2639	Content Studio: Present image variant labels rather than attribute labels for image variant links
IKB-2638	Order by in ikbStudio Development tools
IKB-2637	Integrate FATAX editor
IKB-2636	Remove Oracle BPEL-specific ProcessStudio components from distribution
IKB-2635	iKnowBase should not ship with image_sizes table, and remove it if present
IKB-2634	Content Studio: Missing checkbox for image variant larger that original image
IKB-2633	Instant: Unauthorized join does not clean up instant connection object
IKB-2632	Improve development error messages when FreeMarker failures occur
IKB-2631	Quickstart: Upgrade Jetty from 9.1.3.v20140225 to jetty-9.1.4.v20140401
IKB-2628	Content Studio: Enable webDAV editing in document archive
IKB-2627	Content Studio: Should fill entire browser window
IKB-2624	Create a new template - quicklinks
IKB-2623	Ikke mulig å definere en template basert dimensjons viewer
IKB-2622	Forms update - missing html code
IKB-2618	Instant: InstantQueueServer - Message NOT sent due to client error: reason=Topic does not exist
IKB-2617	Custom Editor should close all <input> tags; p_long_text_ids is not closed
IKB-2616	Instant: Upgrade to Atmosphere runtime 2.1.4 w js 2.1.6
IKB-2614	Image Edit: The zoom in/out and rotate buttons are not enabled on restore after crop
IKB-2612	Support for managed (cloud) databases - Amazon RDS
IKB-2605	Quickstart fungerer ikke på pluggable 12c database
IKB-2598	Keep filter in ikbStudio (development tools) after navigation from one component to another
IKB-2595	"Feed" functionality should move from "Development tools" to "Advanced"
IKB-2583	The data model consistency report should run automatically, as part of build

Issue#	Description
IKB-2582	Automatically create distribution scripts (extract4distrib.sql)
IKB-2574	Quickstart commands exportTransportSet/importTransportSet should fail when failing
IKB-2564	Increase number of characters allowed in the title attribute
IKB-2532	QuickStart→UpgradeAll: Decide how to deal with activi upgrade errors...
IKB-2526	Support for logout
IKB-2522	Fokusering av input felt i form
IKB-2496	Convert iKnowBase Process Studio to a Java plugin
IKB-2475	Picklists: Not possible to navigate directly to Sort-step of picklist when opened for an attribute which already has a selection
IKB-2473	Dev toolkit requires quickstart authentication, which excludes authentication on various platforms and deployments
IKB-2456	Service API: Enable save document attributes without specifying the datatype
IKB-2446	Use iKnowBase repository authorization for all login modules.
IKB-2445	Support for LDAPv3 authentication and authorization
IKB-2402	FreeMarker-modell for "Use expanded resources"-status
IKB-1883	Personal Acl: Go directly to edit pane when an acl already is chosen
IKB-1725	Set "system attributes" through IKB_SERVICE_API
IKB-1663	Javascript action on button i picklist fungerer ikke dersom dokumenter her " i tittel
IKB-1662	Support "Log on as"-feature
IKB-1303	Establish new security framework

5.26. Release 6.5

Issue#	Description
IKB-2553	Connection leak in ikbBatch.PageEngineServer
IKB-2555	Connection leak if database connection initailization fails
IKB-2478	iKnowBase Addin for Microsoft Office is signed by an expired certificate
IKB-2531	Database XML-operations do not work reliably across application servers
IKB-2529	Replace spring-agent with transforming ClassLoader
IKB-2525	Improve quickstart (jetty) tempdir handling
IKB-2511	Instant: Upgrade to Atmosphere runtime 2.1.1 w js 2.1.5
IKB-2546	Change caching of prompts from caching a single large Map to caching individual String values
IKB-2544	FreeMarker $[context.commonScripts} does not contain scripts and css

Issue#	Description
IKB-2466	Support spring @Value annotations receiving values from ikb_installation_properties
IKB-2467	Implement proper distribution of locale throughout spring app
IKB-2465	Language lookup return uses lower(), and only once!
IKB-2463	Access content viewer based on preset document list (primary usecase is Solr)
IKB-2452	Add "shutdown" feature to Quicstart WebServer
IKB-2447	Support "Whenever sqlerror exit sql.sqlcode" in Setup sql scripts
IKB-2439	Support TinyMCE 4
IKB-2432	Support submitting array of CLOB through /pls
IKB-2429	SOLR-example should be moved from ikb-systest to ikb-master
IKB-2428	Build process should automatically export transport sets, and store under ./etc.
IKB-2426	Support arbitrary text-editors in Forms
IKB-2482	Quickstart should support property for setting web session MaxInactiveInterval
IKB-2579	DatabaseAppender (logging) should not raise exceptions when database is unavailable
IKB-2580	The Sql-variable provided to groovy scripts by the TemplateRepositoryModel should use initialized connections
IKB-2530	WevDAV-scripts do not work on Mac
IKB-2474	iKnowBase should support sending email from the java layer, instead of (in addtion to) the database
IKB-2485	iKnowBase should support doing image manipulation in the java layer, instead of (in addition to) in the database
IKB-2148	iKnowBase should install properly under managed (cloud) databases
IKB-2587	Remove Activiti Explorer from iKnowBase distribution
IKB-2343	Etter bruk av scrollbar i bildearkiv tolkes musebevegelse som multiselect (kun IE)
IKB-2539	ContentServer should produce cache-control "public" or "private" depending on user
IKB-2538	Changed behavior in Content Server : serve_content
IKB-2537	Instant: ikb$console test page does not work with IE7: JSON object is not defined
IKB-2534	Content Studio: Image and document archives/picklists don't work in IE7
IKB-2533	Form JS-function Confirm<FORM> is undefined from 6.3
IKB-2527	Content Studio: The acl field in the image form should be a popup rather than a dropdown
IKB-2524	Add cache instruction to /content/-links generated by the viewer

Issue#	Description
IKB-2521	Image archive: Implement pres.style db function which generates image variant links for an image
IKB-2520	Content Studio: Images/documents which are dragged and dropped to the archive/picklist should always be tagged with the chosen dimension
IKB-2518	Instant: JS clients will reconnect immediately and forever when server throws error resulting in onClose
IKB-2514	Instant: Websocket-connections trigger onClose callback after a few minutes. This should not happen.
IKB-2512	Instant: onOpen callback is not triggered before the first message is sent using long polling
IKB-2516	Instant: Remove JSON-encoding for IKBResponse.data
IKB-2515	Instant: Support for `|` (pipe) in all fields of messageFormat IKB
IKB-2510	Direct link from ikbStudio → Database admin → Reports→ "Show unused components"
IKB-2508	Import of transport set disables constraints without enabling them at the end
IKB-2507	PersonalAcl: Startday of the datepicker should be monday, not sunday
IKB-2506	Invalid definition of Oracle Text section group
IKB-2502	Documentation: Document iKnowBase Instant CORS example
IKB-2424	Eksterne kilde attributter er alltid VARCHAR feiler hvis innhold er lengre 3200 tegn
IKB-2423	Some of the popups used in ikbStudio are too narrow
IKB-2420	Support for websocket over HTTPS
IKB-2413	Poor Error Handling: Empty Default Exception Handler
IKB-2409	Savner mulighet for å legge til feltene `Reply-To` og `Return-Path` i SENDMAIL-pakka.
IKB-2572	Image edit: Change the order of the fields in the image form
IKB-2571	Image edit: Implement mouseover in toolbar
IKB-2569	Image edit: Automatically shrink an image to fit within the editing window upon resize
IKB-2568	It should be possible to avoid logging to log_documents for certain viewers
IKB-2565	Image edit: Support selection of predefined crop area sizes (image variants)
IKB-2570	Image edit: Implement function to make an image fit within the editing window without actually reducing its size
IKB-2561	Provide a purge-AQ-exception queue procedure with the distribution
IKB-2562	Instant: IE7-9 mode fails unsubscribe when using CORS (Documentation supported browsers)
IKB-2560	Image edit: The user should have a choice to automatically customize the specified crop area if it is larger than the image

Issue#	Description
IKB-2557	The notifier should always display on top, ensure that it is not hidden behind other elements
IKB-2556	Image edit: The crop area should be set as the user enters height and width
IKB-2551	Default log configuration should include requestId and sessionId for all file-based logs
IKB-2552	Quickstart remote address restrictions in authenticator modules should use real remote ip and ignore x-forwarded-for
IKB-2547	Support for trusted http header based authentication in iKnowbase Quickstart
IKB-2549	Use unique session cookie per application on iKnowbase Quickstart to avoid authentication conflicts
IKB-2548	Use shared authenticators and login services for all applications deployed to iKnowBase Quickstart
IKB-2545	Oracle Text search: create a more flexible parser to define how to use wildcards in search
IKB-2396	Behov for rettighetsstyring på pakkealias
IKB-2500	Quickstart: SAMPLE.properties specifies webIkbRessurs, but engine supports the old name webRessurs
IKB-2498	Rework JDBC-management to allow the use of vrapped JDBC-objects
IKB-2499	Quickstart: Legacy configuration option webapps works differently from web.apps
IKB-2495	quickstart dropUserCascade failures should stop further quickstart processing
IKB-2494	SAMPLE.properties is incorrect for User and Group lookup
IKB-2492	Dev toolkit: Support static content in jar-plugin
IKB-2490	The Spring EndpointsReport (/ikb$console/java/endpoints) should order endpoints by their url pattern, and present clickable links.
IKB-2486	CodeMirror editor starts with wrong mode
IKB-2475	Picklists: Not possible to navigate directly to Sort-step of picklist when opened for an attribute which already has a selection
IKB-2472	Java Plugin Spring bean name should be fully qualified to avoid name collisions
IKB-2471	Viewer attribute of type date and NOW vs TODAY
IKB-2469	iKnowBase.Instant.Atmosphere.publish requires JSON data but should also support object
IKB-2462	Show toolbar for document picklist
IKB-2457	iKnowBase Installation doc not updated with new .zip structure
IKB-2458	Invalid comments in solrconfig.xml
IKB-2454	Upgrade the quickstart Oracle JDBC-driver to version 12.1.0.1

Issue#	Description
IKB-2455	Picklists: Selection doesn't work if both image- and document picklists are open at the same time
IKB-2453	Replace usages of spring specific "DisposableBean" in favor of Closeable
IKB-2449	Master-data should originate from version-specific repository (schema)
IKB-2448	exportFile/importFile should need extension (recommend .dmp)
IKB-2443	OWASP Top Ten 2007: Password Management: Null Password
IKB-2441	Provide dbDataPumpJobName property to all sql-scripts
IKB-2440	Ikb Reset knapp i søkekilder fjerner quicklinker
IKB-2437	Upgrade wicket to version 6.12
IKB-2436	Upgrade activiti to version 5.14
IKB-2434	Upgrade jetty to version 9.1.3.v20140225
IKB-2438	Upgrade groovy to version 2.2.1
IKB-2435	Upgrade ehcache to version 2.8.1
IKB-2433	Upgrade spring-framework to version 4.0.2.RELEASE
IKB-2431	Dev toolkit: Add library doc and source for use in IDE
IKB-2427	Move "split_text_and_description" functionality into /pls handler
IKB-2481	Form: Implement an iKB specific-tag for generation of image variant markup
IKB-2480	Support javasimon-jdbc4 to monitor database connections.
IKB-2479	Support for querying the Instant server
IKB-2477	Support for HTTP Range-headers
IKB-2266	Picklists: Edit label in list view sometimes displays the wrong label
IKB-2256	Picklists: Multiselect in thumbnail-view in image picklist doesn't work after the document picklist has been opened
IKB-2319	Support SSL in the quickstart web server
IKB-2313	Run a Viewer w presentation style with a predefined set of documents
IKB-2217	Feil i form: får ikke valgt ansvarlig
IKB-2603	Instant: WARN DefaultAnnotationProcessor - Unable to detect annotations. Application may fail to deploy.
IKB-2606	ikbBatch and ikbStudio should pass on proper location for ikbViewer to javascripts
IKB-2604	GlassFish: Class invariant violation at org.apache.log4j.LogManager.getLoggerRepository
IKB-2611	Quickstart: Default PermGen space settings for the JVM should allow deployment of all applications
IKB-2501	IKB-2148 Replace use of OWA_UTIL in menu renders

Issue#	Description
IKB-2367	Change sample database connection from JDBC URL to Oracle Net connection descriptor instead to allow oracle specific properties
IKB-2566	Image Variants: Add support for auto rotate and extend configuration in order to differentiate use of image variants
IKB-2567	Unable to execute DB-functions in presentation style with DML-statements
IKB-2497	DevToolkit Samples for "Ian"
IKB-2517	Instant: ConversationId in ikb$console is incorrectly mapped to non-conversation events
IKB-2550	Instant: onFailureToReconnect callback is not in use - remove it
IKB-2442	OWASP Top Ten 2007: Password Management: Password in Comment
IKB-2425	quickstart dropUserCascade required parameter is missing prefix "db."
IKB-2602	WebLogic: weblogic.jaxrs.server.portable.servlet.JerseyServletContainerInitializer - override
IKB-2601	Webdav: WARN HttpManagerBuilderEnt - Using the default calendar search service. Calendar search functions may exhibit poor performance. If thats a problem implement your own: interface io.milton.http.caldav.CalendarSearchService

5.27. Release 6.4.1

Issue#	Description
IKB-2255	Connection leak if database connection initailization fails
IKB-2253	Connection leak in ikbBatch.PageEngineServer
IKB-2500	Quickstart: SAMPLE.properties specifies webIkbRessurs, but engine supports the old name webRessurs
IKB-2494	SAMPLE.properties is incorrect for User and Group lookup
IKB-2457	iKnowBase Installation doc not updated with new .zip structure

5.28. Release 6.4

Issue#	Description
IKB-0357	Content Server - change in default access mechanism
IKB-1211	ACL fra mor-dokument settes på dokument selv om "Copy ACL from master document" ikke er avhuket på informasjonstypen
IKB-1314	quickstart.sh/.cmd should allow execution from other directory
IKB-1634	Should display data-type of attribute on the "template"-tab of the presentation style
IKB-1654	Content Service API: Handle user without defined language

Issue#	Description
IKB-1658	Document archive - both icons have same tooltip
IKB-1787	Konfigurasjon av tilkobling til epost-server for emailreader
IKB-2055	Upgrade jetty to version 9.x
IKB-2075	Flere kjekke bookmarklets
IKB-2185	[001545] Bug in the sendmail package: Mail is not sent to the address specified in the cc field
IKB-2194	OC4J is no longer supported - remove specifically implemented support
IKB-2206	MENU_DYNAMIC varchar overflow
IKB-2207	HTML_ITEM_PREFS missing index for last changed date
IKB-2220	Distribute solr with (minimal) logging enabled
IKB-2225	Content Studio: Center picklists upon reopen
IKB-2235	ikb transport set issues related to solr config
IKB-2236	Support several solr "installations" in one iknowbase installation
IKB-2241	Sporing i meny blir ikke riktig dersom målsiden har dynamiske parametre
IKB-2249	ikbActivitiExplorer: Class path contains multiple SLF4J bindings
IKB-2250	WARNING: The media type and language mappings declared in the ResourceConfig are ignored because there is an instance of com.sun.jersey.api.container.filter.UriConnegFilterpresent in the list of request filters.
IKB-2256	Picklists: Multiselect in thumbnail-view in image picklist doesn't work after the document picklist has been opened
IKB-2259	solr-søk: feilmelding i error-tab - PK_SOLR_CHANGELOG violated
IKB-2260	Add support for groovy mode in ikbStudio code editor for HTML Viewer
IKB-2262	StandalonePageEngineBuilder should not create it's own services, but rely on injected services instead
IKB-2263	WebDAV: Support direct document access, similar to the content server (/docid/name)
IKB-2264	Upgrade to Ext JS 4.2.2
IKB-2265	Content Studio: Fixed multiple bugs related to editing an image
IKB-2266	Picklists: Edit label in list view sometimes displays the wrong label
IKB-2267	Quickstart fresh install should assume that Oracle image-editing is available
IKB-2268	Up to and including iKnowBase "Gordon" we use ant for building; now we want to use gradle instead
IKB-2269	Certify iKnowBase with glassfish v4
IKB-2270	Certify iKnowBase with WebLogic server 12.1.2

Issue#	Description
IKB-2271	Remove encoding-dependent source code from Fatax server
IKB-2273	TraceSession and TraceSessionHistory should be serializable (fails session replication)
IKB-2275	Upgrade to wicket 6.10
IKB-2282	installation properties name, value and qualifier should be trimmed
IKB-2284	Quickstart should have "listProperties" command to ... list properties!
IKB-2285	Quickstart should have "logDirectory" property that controls where logfiles go
IKB-2286	Quickstart should not add extension to logfiles that have extension
IKB-2287	Quickstart "downloadFile" should let you specify the target directory of the file you download
IKB-2289	Add URL-path to WebDAV root as domain-setting
IKB-2290	ikbSelectUserPopup - sjekk om om brukeren er aktiv eller ikke
IKB-2291	Add content viewer function to open document using WebDAV
IKB-2292	Change the way we allocate and use database connections
IKB-2293	Upgrade Instant to Atmosphere v2.0.3 runtime / v2.0.7 js
IKB-2297	Weblogic. Problem with deploy of iKnowBase-6.3-WebLogicAuthenticator.jar
IKB-2298	FreeMarker parameter model should support parameters with null value
IKB-2300	Image scaling - some images variants are bigger than the original
IKB-2301	Upgrade CodeMirror, and activate by default for all pages
IKB-2302	Document upgrade overview in Installation Guide
IKB-2303	Quickstart upgradeAll should also upgrade activiti schema
IKB-2304	ValidateNumericInput prevents the use of tab
IKB-2305	Send a single document to SOLR for indexing
IKB-2307	WebApps should log warnings and above to database error tab
IKB-2308	Secure token sendes inn enkodet med IE
IKB-2309	Unable to parse query string - atmosphere issue 1321
IKB-2311	Webapps should have a unified index-page
IKB-2312	OID Sync : Group membership are built before the user is created
IKB-2314	Add NLS Definition ID in language console
IKB-2315	Search field in ikbStudio is limited to 40 characters
IKB-2316	ikbStudio: Side URLer er ikke lengre klikkbare
IKB-2317	Create configuration property to disable cache distribution
IKB-2318	Sendmail - improve performance
IKB-2320	Long polling timeout/resubscribe causes leave/join

Issue#	Description
IKB-2321	Unable to delete pages in ikbStudio - no error messages given
IKB-2326	Feil i viewer med to dato parametre på samme attributt
IKB-2330	Cannot import content studio transport set in ikbStudio due to ORA-39001: invalid argument value
IKB-2331	IKB_SOLR.GET_DOCUMENT fails if we have dimensional attributes where PATH should be indexed
IKB-2332	Form fails if the number of attachments exceeds 60
IKB-2333	Sendmail: Need to ensure correct CRLF in body-text
IKB-2335	Forhåndsutfyll feltet datasource i nye presentasjonsmaler med "iKnowBase - Documents"
IKB-2337	Store failed emails in a seperate table
IKB-2338	Solr: Should support instance qualifiers other than * for secure token engine secureKey
IKB-2339	Solr: Document installation settings for secure token engine.
IKB-2340	Ensure that Ext is ready before callback is run in "withExt4"
IKB-2341	Add development toolkit for creating custom iKB applications with modifications and plugins
IKB-2343	Etter bruk av scrollbar i bildearkiv tolkes musebevegelse som multiselect (kun IE)
IKB-2344	Attribute list for ikb attribute is not sorted for ldap sync profile.
IKB-2345	oid_sync.retrieve_user_information
IKB-2346	Instant: Google Analytics for Atmosphere Framework should be disabled
IKB-2347	Installation Documentation - error
IKB-2348	SOLR queue-name in queries must be stripped
IKB-2350	ikbStudio: Data model consistency report: No more data to read from socket
IKB-2354	Invalid name given to date-fields in SOLR
IKB-2355	SOLR indexing: Created date is not handled by IKB_SOLR
IKB-2356	ikbInstant: Unsubscribe should clear the conversation uuid
IKB-2357	Webdav: Document installation to separate WebDAV-specific hostname
IKB-2358	Håndtering av charaterencoding på LDAP attributter
IKB-2359	ikbViewer should by default be deployed to /
IKB-2361	Add "virtual host" support to quickstart, to allow WebDAV to run in the same container as everything else
IKB-2362	SENDMAIL pakka
IKB-2364	Quickstart should include defaults for webIkbInstantWar and -Path

Issue#	Description
IKB-2365	ikbWebdav: IKB_DEVELOPERS and IKB_SYSADMINS missing in weblogic deployment descriptor
IKB-2368	Manglende attributter ved flytt av ekstern kilde med transportsett
IKB-2369	Remove documentation for WebLogic 11g
IKB-2372	Sendmail: ÆØÅ in body doesn't work on ISO-8859-Px
IKB-2373	ikbViewer to context root /: Check document usage conters
IKB-2374	ikbViewer to context root /: Check hardkoded "/ikbViewer" in source code
IKB-2375	Do not save personal attribute dimensions when using service api
IKB-2376	Path seperator + viewerPath need to be configurable in solr configuration
IKB-2378	Quickstart basic auth ad: NullPointerException if no username is provided
IKB-2381	Quickstart should support ad (ldap) authentication without wna
IKB-2382	Quickstart wna: support conditional negotiate auth based on request params
IKB-2383	Quickstart properties: Standardize format and show all properties in sample config
IKB-2390	Development tookit: Add activiti sample
IKB-2392	Upgrade TinyMCE to version 3.5.10 (support for IE11)
IKB-2393	Large list difficult to select as export objects
IKB-2394	Invalid encoding of subject in Sendmail (UTF8)
IKB-2395	HTTP/1.1 413 FULL head error with Windows SSO on iKnowBase Quickstart
IKB-2397	Add event-handling to action "Set version active" on documents
IKB-2398	Error in ikb_portlet_predefined_search.build_query:ORA-06502: PL/SQL: numeric or value error: character string buffer too small : ORA-06512: at "IKB_SYSTEST.IKB_PORTLET_PREDEFINED_SEARCH", line 3118
IKB-2399	Quickstart apps will be partially unavailable if temp directory is cleaned during runtime
IKB-2400	Flere forskjellige charater encoding på felter i LDAP
IKB-2401	Validate email-address Client side - newsletter subscribe/unsubscript
IKB-2403	[002057] Links in mails sent to iPhone/iPad don't work
IKB-2404	[002013] Dimension navigator doesn't show any dimensions for the document field dimension attribute
IKB-2405	Avoid HTML/PDF/TEXT convertion for file formats like images, videos ...
IKB-2406	Should be possible to define how menu active is identified
IKB-2407	IKBStudio → LDAP Sync → Bad performance
IKB-2408	Quickstart pooled database connections are closed while in use due to bug in maxConnectionsResuseTime

Issue#	Description
IKB-2410	ikbWebdav does not currently support clustering - disable cluster config and document
IKB-2411	ikbInstant undeliverable messages added with plsql api when server is down will block plsql api message queue
IKB-2412	The function another_proc() in ikb_merge_generator.pkb sometimes fails to close the cursor opened by open_cursor()
IKB-2413	Poor Error Handling: Empty Default Exception Handler
IKB-2419	Remove support for mounting dimensions as WebDAV folders
IKB-2421	ActiveXControl check for office addin does not work in IE11
IKB-2422	Remove cluster in deploymentdescriptor for iknowbase-resources
IKB-2380	Quickstart: Error during startup if loginService only contains spnego-ad (and not iknowbase)
IKB-2418	Oracle AQ queues are disabled after import on a fresh install

5.29. Release 6.3

Issue #	Description
IKB-1080	PORTLET_CUSTOM_LOGIN støtter ikke https
IKB-1269	Create URL-parameter to ignore content cache (always refresh)
IKB-1643	reloadComponent: Burde være mulig å angi en js funksjon som callback
IKB-1767	Functionality to add personal access group
IKB-1769	Fix position of SQL hint in SQL
IKB-1844	Check filename for valid characters
IKB-1882	Positioning of popups should be relative to where they are opened from
IKB-1886	Should be possible to choose form on edit-links
IKB-1932	Autokorrektur på Ext dato felter har feil format på dato
IKB-1976	Ext 4 Dato felt i forms har søndag som første dag i uken
IKB-1978	Forms: placeholder vises ikke i Ext datofelt
IKB-1983	Transportsett: Ønske om mulighet til å klargjøre patch-sett uten å endre subsystem
IKB-2040	Transport set for language does not include 'Browser language' settings
IKB-2048	Functionality to edit personal access group
IKB-2056	Image Scaling Event generates very high load on database
IKB-2062	/go/target url gir 404 til eier av dokumenter eller public brukere
IKB-2066	Oracle Text Search - DRG-50901: text query parser syntax error

Issue #	Description
IKB-2071	[001177] Newsletter - Include feature to filter content by "news since last newsletter"
IKB-2085	Versjonering av dokumenter fungerer ikke
IKB-2087	XSS errors found when running Acunetix
IKB-2088	New database report - show inconcequence between datamodel and xi-tables
IKB-2089	In IKBStudio, it would be nice to see where the data is stored (TABLE-information)
IKB-2090	In IKBStudio, make it possible to search for a GUID also
IKB-2091	ContentServer should support converting files to PDF, HTML and TEXT; ContentViewer should have functions to generate such links
IKB-2092	Caching infrastructure does not use configured values for setting up replicated caches
IKB-2094	Use of sys context in parameters for created date
IKB-2095	Feil i ikb_common_procs.get_language ved brukernavn lenger enn 30 char
IKB-2096	Write object_guid to SQL also for count-query
IKB-2097	Forbedre ytelsen på Dimensjonsnavigatoren
IKB-2101	Create a report to display inconsistency between a local database and IKB-master
IKB-2102	Versjonering: opprettes ny versjon dersom man tar Avbryt på boks for kommentering
IKB-2103	Cache: Support for replicated metadata cache
IKB-2104	Cache: GUID on cached components in ikb$console/cache should be linked to ikbStudio definition
IKB-2106	Cache: Support for administration of content cache strategy in ikbStudio
IKB-2107	Cache: Support for URL-params in Content Cache Strategy per portlet
IKB-2108	Cache: Cache options that are only applicable to Oracle Portal should be marked accordingly
IKB-2109	Cache: Support for cache invalidation by cache type
IKB-2111	Cache: Support for max-memory limit
IKB-2112	Cache: Display memory used for caching in ikb$console
IKB-2113	ikb$console - Report: Show all components configured for content caching
IKB-2114	Improve documentation for cache support
IKB-2118	ikb_pck_document.ConvertBlob2Clob gives wrong result
IKB-2120	Hardcoded text in PORTLET_SEARCH_DIALOG - Enter a searchstring
IKB-2123	Display HTTP session content in ikb$console
IKB-2124	FreeMarker model/property "viewer.data.level" contains subdocuments
IKB-2125	Invalid target built when using a popup with window options

Issue #	Description
IKB-2129	ContentServer does not properly support URL-syntax for specifying file by guid
IKB-2130	Implement POPUPs on large select lists
IKB-2131	Support for instant messages for web clients, replacing iKnowInstant
IKB-2133	Better support for deploying ikbViewer to the root context (/)
IKB-2134	Parameterized cleanup of session (so that LOG_DOCUMENTS-deletion can be configured)
IKB-2136	[001389] Development Studio > Form: Not possible to set default content format to "file" or "content"
IKB-2138	HTML-portlet adds one extra whitespace when printed
IKB-2139	From a component definition (form, viewer), make it possible to add the object to a transport set
IKB-2140	ikb_content_viewer.set_parameter_value returns Buffer to small
IKB-2142	Content Studio: Disable insert of copyright and photographer in the image form (this info is inserted from the image metadata)
IKB-2145	SnoopSpringEndpointsReportProvider logs with classname EHCacheReportProvider
IKB-2146	Upgrade SOLR to 4.2
IKB-2147	Removed obsolete parameters to procedures in Forms
IKB-2149	Error in doc: quickstart.sh iknowbase.properties exportScripts scripts.zip
IKB-2150	OID_SYNC throws unnecessary error on data lookup
IKB-2151	Enable automatic upload (script based) on transport sets
IKB-2152	Make it possible to redirect to a different domain from a homeplace definition
IKB-2156	Sporing i menyer fungerer ikke helt lengre i siste versjon av ikb
IKB-2157	Ved obligatorisk datofelt uten kalender blir det genererte validate-javascriptet feil
IKB-2159	Unable to define specific groups to map when using AD
IKB-2160	It should be possible to create a homeplace restricted to more than one domain
IKB-2162	Rework page engine development css/js to render toolbars properly when used from reloadComponent
IKB-2163	Integrate newest Activiti 5.13 when ready
IKB-2164	l_result in ikb_contentstudio_functions.get_image_variant to small
IKB-2165	Image picklist styling might be affected of custom css
IKB-2166	Development Studio: Document type filter is missing in search source filter tab
IKB-2167	Character string buffer too small - ikb_ce_admin_editor_portlet - view selected acls
IKB-2170	Quickstart and WNA group lookup: Support for separate and multiple user and group bases

Issue #	Description
IKB-2172	Detecting active menu in a dimensional PL/SQL menu failed
IKB-2175	ikb_show_content : Validating URL-params (numbers) failed if the number was negative
IKB-2176	Advanced menu: active menu detection fails if present URL is to long
IKB-2179	Content Studio: Change default sort in Image- and Document Archive and picklist to "changed date" descending
IKB-2181	Content Studio: Picklists displays wrong empty text when reopened
IKB-2193	Documentation: OC4J is no longer supported - remove in documentation
IKB-2196	Content Studio: In the "View properties" panel for an image the file size should be shown
IKB-2201	Emailreader klarer ikke lese epost med bilder
IKB-2205	Activiti Form: Error in process execution gives stack trace
IKB-2210	Activiti Form: Dimension popup doesn't work if the field already has a dimension guid
IKB-2216	Activiti Form: Dimension popup does not properly handle multivalued attributess
IKB-2221	Activiti Form should qualify all parameters, to avoid them being available to other components
IKB-2227	Activiti: Not able to remove value in text input-field
IKB-2229	solr: result set navigation issue
IKB-2231	Content Studio: ACL should not be required attribute in image form
IKB-2232	Solr: navigationBar viser av og til både "neste" og "siste" på nest siste side; skal bare vise siste
IKB-2234	Content Studio: Edit properties for an image in the document archive doesn't display the form correct
IKB-2239	Create thresholds to log warnings and block indexing of large documents
IKB-2240	Need better way to specify datapump properties
IKB-2245	Replace validation javascript with local resource
IKB-2247	Process Studio: Filters don't work
IKB-2248	Quickstart WNA: Enable lookup of username from alternative attribute
IKB-2257	Support for session replication for ikbViewer

5.30. Release 6.2

Issue #	Description
IKB-238	ACLadmin - change of owner_id
IKB-240	No error msg when submitting text in an attribute defined as NUMBER

Issue #	Description
IKB-457	[HD-20395] Input validation in forms
IKB-623	Add timeout to loadURL and loadXML FreeMarker macros
IKB-765	Investigate simple process solution
IKB-1132	Enhance ContentServer cachability through fingerprinting
IKB-1183	Manglende validering av numeriske felt i forms
IKB-1415	FreeMarker ContentViewer Model: Add separate DataFieldXxx objects for all relevant types
IKB-1519	iKB Studio > Development Tools: "Test" button for search source
IKB-1770	Missing indexes on IKB_CRAWLER_LIST
IKB-1771	Showing objects that reference ACL when deleting
IKB-1778	Document the property "callback function" for Viewer and Search Source
IKB-1791	[000420] Security Issue
IKB-1804	Importing menus with "delete details and load againg" causes "Submenu" coloumn on MENU_INSTANCE to loose the reference to MENU_ITEM
IKB-1807	Should be possible to use special characters in label of form-buttons
IKB-1814	Transportsett: Kobling til submeny forsvinner dersom man velger "delete details and load again"
IKB-1815	Upgrade from Ext JS 4.0.7 to Ext JS 4.1.3
IKB-1823	Add last_run_duration for Scheduler in ikbStudio
IKB-1845	Content Studio: Implement image add links as viewer instead of menu (like document add links)
IKB-1874	ikbStudio: Not possible to create an image variant without checking the enable-flag
IKB-1875	Personal Acl: Implement paging and search
IKB-1881	ImageScaling: Ratio should be kept if only width or height is given for the image variant
IKB-1903	Use of sys context in external datasource
IKB-1909	Alowing use of {} in FROM-part of external datasource
IKB-1910	ikbStudio: Values fanen i en form inneholder en select med alle ACLer
IKB-1912	Advanced search i Content Studio inneholder en select boks over alle ACLer
IKB-1919	Content Studio: When javascript is disabled in browser, the user should get a proper message
IKB-1920	ikbStudio: Enhance the "Installation Properties" editor, so that it is possible to insert new rows.
IKB-1925	Upgrade to activiti 5.10
IKB-1937	Form: Kan ikke ha tegnet > i value på en knapp i en html basert form

Issue #	Description
IKB-1938	FreeMarker model: The showMore property of a Content Viewer should include target attribute
IKB-1939	Feil i ikb_api.get_generic_code_ext_key
IKB-1940	Error in ikb_show_content.get_attribute_values
IKB-1941	"Run using queue" test action in the ikbBatch Page Engine fails when running under WebLogic
IKB-1942	ikb_content_validator.document_usage returns too many errors
IKB-1943	OID Sync: Person dimension is always moved to the top dimension
IKB-1944	_ikbRequestTracefile does not work for ikb$run (ComponentRunnerController)
IKB-1945	Documentation: Activiti Task Form not documented in Portlet Reference
IKB-1946	Extended "scan" of document-usage
IKB-1947	Add parent_id to upload_document in ikb_contentstudio_functions
IKB-1949	Support for Logout in ikbViewer
IKB-1950	WicketNotSerializableException: Unable to serialize class: java.util.logging.Logger
IKB-1955	Upgrade spring-framework to release 3.1.2
IKB-1956	Upgrade jQuery to 1.8.3
IKB-1957	Upgrade spring-ws to version 2.1.x
IKB-1958	Upgrade Groovy to 2.0.x
IKB-1959	ikbWebdav: FTP server - Authentication failure - java.lang.IllegalArgumentException: No Configuration was registered that can handle the configuration named oracle.security.jazn.oc4j.JAZNUserManager
IKB-1960	Upgrade apache-httpclient to 4.2.1
IKB-1961	Create new batch module "contentIndexer", to forward content changes to external search index / engine
IKB-1966	Tilrettelegge for å gruppere logg-entries per "service"
IKB-1967	Upgrade from Ext 4.0.7 to Ext 4.1.2
IKB-1968	Import doesn't remove prompts that have been deleted from source
IKB-1970	Export: Missing XI tables
IKB-1971	Content Studio: Edit-links in document archive should open the form in a new window
IKB-1973	Image Map Advanced preference name too large
IKB-1974	Upgrade jackson to 2.0.x
IKB-1975	Form2mail as standard functionality in iknowbase forms
IKB-1979	Only one dimension is selected when editing muli-selected dimension attributes
IKB-1980	Quickstart webServer should not require restart when roles are reconfigured

Issue #	Description
IKB-1981	ikbBatch/fileConverter test programs do not properly handle Content-Type; original docx opens as zip
IKB-1982	If a user cancels execution of reloadComponent, an error message is given
IKB-1987	Tabular layout search source renders NO_DATA_FOUND in illegal html
IKB-1990	FTP Server: Viser templates men ingen presentasjonsmaler
IKB-1992	Change default value on show add/edit links in presentation style to show in show mode
IKB-1993	http:// is added to urls in presentaion style if "link only if content" is selected on title-attribute
IKB-1994	The ikbGoTarget-script doesn't work in Firefox (leads to non-working links)
IKB-1995	ORA-06512: at "IKNOWBASE.IKB_IMPORT", line 1838 during import
IKB-1996	IKB_IMPORT: Mapping of users where ID and GUID is different fails
IKB-1999	Process Studio: Support deployment
IKB-2000	Script actions should be able to retrieve file uploads
IKB-2002	ikb_crawler fails with BAD_SQL_GRAMMAR error
IKB-2003	Validering av numerikse felt
IKB-2004	Unable to compile ikb_show_content at NSF
IKB-2005	ikbStudio: Selecting dimensions for editing does not work in IE under Jetty
IKB-2006	ikbGoTarget returns error in firefox
IKB-2008	Searchcode definition for date fields are changed on update. New value set does not contain all values from original set.
IKB-2009	Documentation: Link to Development Guide from the page "iKnowBase Process Services for Activiti - Samples page" doesn't work
IKB-2011	Add support for groovy mode in ikbStudio code editor
IKB-2012	Timestamps/timers in script-logs (e.g. upgradeAll)
IKB-2017	Forslag til presisering i dokumentasjon vedr IKBAuthenticationPlugin
IKB-2018	iKBStudio - Advanced OID Synch - show log does not do any filtering
IKB-2019	Bookmarklets not functional - missing void
IKB-2020	Support ACL on script targets
IKB-2023	OID_SYNC_IKB.integrate_person set dimension "sort key" to 0
IKB-2025	Enable the generation of heap dumps from ikb$console
IKB-2026	Improve handling of HTTPS-scenarios
IKB-2037	Wrong URL for editing Word document
IKB-2038	Fix the DocumentService java-api so that it uses an org.w3c.dom.Element for XML-data

Issue #	Description
IKB-2039	Job 9351 with sync_ikb_index('NORMAL') does nothing after upgrade from v5.4.1 ⇒ v6.1
IKB-2041	Missing logger definitions on WLS 12c
IKB-2043	Upgrade slf4j to 1.7.2 and log4j to 1.2.17
IKB-2046	Create freemarker-model for isDevelopmentMode
IKB-2047	Groovy MarkupBuilders should always have setExpandEmptyElements(true)
IKB-2049	Brukersynk: Personkort-attributt blir ikke slettet - selv om "kilden" ikke lenger har en verdi
IKB-2051	[000367] - Filename is escaped twice for links to related objects
IKB-2052	[000343] - numeric or value error: character string buffer too small in Forms
IKB-2054	Session cookie should handle sso through multiple domains/vhosts on embedded Jetty server
IKB-2057	plsql.QueryRowSetImpl - Error setting locale: dbLocale=null; dbLanguage=n
IKB-2060	Export : Be able to exclude objects without subsystem
IKB-2061	Export: Only export the object itself without all references
IKB-2065	Feil ved åpning av dokumenter med / i filnavn
IKB-2070	In viewer conditions, results from a stored function may be wrong when the sql-clause is built.

5.31. Release 6.1

Issue #	Description
IKB-228	DOCUMENT_TYPE - indexes for check-in / check-out and lock.
IKB-729	In viewer-config: "max records" should be set to "# records" when "#records" is more than 100 (always) and "max records" is empty.
IKB-758	WebDAV-support in the Development Studio.
IKB-852	External Datasource: it would be nice to see the SQL generated.
IKB-1450	Vise "ingen treff" i søkekilde/viewer.
IKB-1508	All required javascripts should be merged and minified into a single file.
IKB-1514	Document the feature to return JSON data upon save from form.
IKB-1543	Image Archive: Make information about image usage available.
IKB-1546	Wrong styling of Lists (ordered and unordered) in xNet and Content Studio.
IKB-1568	Check in and check out link information should be available to FreeMarker templates.
IKB-1648	Publisere tittel med prosenttegn.
IKB-1649	Add null / not null information to procedure signature.

Issue #	Description
IKB-1650	Add more detailed error information for IKB_CONTENT_VALIDATOR.
IKB-1651	Add more logging to sendmail errors.
IKB-1670	Filtype XLSM inkluderes i standard iKnowBase.
IKB-1673	Improving error logging in IKB.IKB_SOLUTION_EVENTS.
IKB-1675	Search source based on external source: conditions disappear when you change presentation style based on the same external source.
IKB-1679	Signature for <simple> Pres.Style:Database Function added to then documentation.
IKB-1688	iKnowBase System administration.pdf updated with correct procedure for handling gn_seconds_threshold.
IKB-1689	Make "help"-panel in ikbStudio persistent
IKB-1690	Content Studio: Prevent Metadata info overflows in the document card view mode
IKB-1691	HD-71787 Feil rekkefølge i dimensjonsattributt
IKB-1692	Expose ikb$console in all web applications
IKB-1693	The dimension viewer sometimes fails under Java5.
IKB-1694	Content-Disposition header is incorrect; save as fails
IKB-1696	Add "action" endpoint for running template/code
IKB-1697	HD-53622 How to include images (from image attributes) in newsletters
IKB-1703	Import: Mapping IDs in Generic_codes failes if we have more than one entry (but for different valuelists) with the same ID
IKB-1704	Får ikke hentet ut korrekt språk på ledetekstene
IKB-1706	Remove size restrictions on sendmail.attach_text and attach_text_html
IKB-1707	Language pane window: Unable to add HTML in text elements
IKB-1708	Viewer add attributes show english labels, while Pres style add attributes show norwegian labels.
IKB-1714	000355 Document Picklist: The dimension tree is not filtered according to attribute configuration (dimensions).
IKB-1717	ikbViewer feiler dersom det brukes en meningsbærende URL til en beskyttet side med PUBLIC_BRUKER (ikke pålogget).
IKB-1718	sendmail.begin_mail_in_session_bcc setter ikke feltene cc og bcc i mime-header.
IKB-1719	Unauthorized access to dimensions in search form using select-list.
IKB-1720	Service API should support creation of subdocuments to documents you do not
IKB-1721	Aksjonsportlet mister parameter i URL.
IKB-1722	Add support for ordering document links in form (lost in iKB 6.0)
IKB-1723	[HD-73630] Development Studio: Show created date for acl/group memberships
IKB-1724	[000079] Add support for validity period for personal acl members

Issue #	Description
IKB-1726	Tuning Prompt Query
IKB-1727	Cannot use index on IKB_PREFERENCE_STORE
IKB-1728	For å få korrekte urler i RSS-feeds som leveres fra iKnowBase må det benyttes & mellom params og ikke &
IKB-1729	Feil rekkefølge på parametere i IKB_SHOW_CONTENT
IKB-1730	Mangler dokumentuttrekk på VarselSKOP-siden
IKB-1732	Content Studio: Initial load of data in document- and image archive should not be performed
IKB-1734	Regression: DimensionViewer will (improperly) display full dimension path when acting as selector
IKB-1738	Feil ved bruk av Personlig ACL
IKB-1740	Feil håndtering av p_document_id i ikb_ce_custom_editor_portlet.redirect_form
IKB-1741	Event rammeverket blir ikke trigget når det skjer endringer på grupper via OID synk.
IKB-1743	Possible tuning of SELECT
IKB-1746	Usage-tab of search sources does not show where the component is used
IKB-1749	Fra NSF: problem med kursrom og to nettleservinduer
IKB-1758	Changing user information in ikbStudio will remove the link to the person card (document_guid)
IKB-1763	Show the proper Attribute types (ACL / Information type / User) to the client instead of F.
IKB-1764	Rename portlets for more consistent naming
IKB-1768	Fix error in viewer for folder id in SQL
IKB-1774	Quicklinks disappear
IKB-1776	000315 Ekstra tegn etter opplasting av fil
IKB-1777	Add online help documentation for page-based newsletters (ikbStudio)
IKB-1779	Debug of redirect cannot be done if log level is ERROR
IKB-1780	Attribute and document content overridden in SES crawler
IKB-1784	000411 Information in page-based newsletters are not updated as expected
IKB-1785	Query filter plugin error due to ikb_common_procs.get_user_id caching
IKB-1788	Custom picklist: Result set with subdocuments not displayed correctly
IKB-1789	WebDAV missing subfolders
IKB-1791	000420 Security Issue
IKB-1792	Edit a search source fails when it is configured with many quick links
IKB-1793	SES Crawler with changed behavior for dimension attributes after upgrade to 6.0

Issue #	Description
IKB-1797	Content Search Banner portlet does not correctly handle external search targets of type IKB
IKB-1800	Fix logging from EMailReader
IKB-1801	Implement busy indicator
IKB-1802	Implement notifier
IKB-1803	Improve Personal Acl Dialog
IKB-1810	Performance and load issues with ikb_metadata_search.metadata_xml_batch
IKB-1811	Performance issues with evita_portal_generic.remove_duplicates_in_array
IKB-1812	ikb_metadata_search.metadata_xml_batch will fail if there are no documents to process
IKB-1816	Blaing/"ajax reload" feiler i viewer
IKB-1817	OID Sync: Bootstrap sync will remove membership information for all remaining users if LDAP connection is terminated
IKB-1826	Development mode gir 500 Internal server error
IKB-1828	Error for call to db function for versioned document
IKB-1832	Endrer https til http på attributlenker
IKB-1833	[000355] Support dynamic load of dimensions in Content Studio (image- and document archive)
IKB-1834	Presentation style with html tags in style attribute is encoded if Show sort [Show sort icons]=[Clickable label] is set.
IKB-1836	Content Studio: Use quicklink labels from viewer configuration in the add menu (document archive)
IKB-1841	Test of components does not work in ikbStudio
IKB-1842	It should be possible to create database trace file using URL parameter
IKB-1843	Show portletTitle in MenuViewer.
IKB-1846	Content Studio: Escape JSON strings in iKnowBase templates which produce JSON data
IKB-1848	Replace hashing function in SecureTokenEngine, from SHA1 to HmacSHA
IKB-1849	Oracle Text - conflict between index sections and use of <title> in HTML-documents
IKB-1851	BatchServer queue listeners does not release database connections properly
IKB-1853	Upgrade TinyMCE to latest version (currently 3.5.2)
IKB-1856	Imagearchive archive with huge dimension tree scrollbar not visible
IKB-1860	HD-72078 Cannot send email to many recipients
IKB-1861	Picklists: Selected items collections not instantiated correctly (erroneously "remember" selection)

Issue #	Description
IKB-1862	Service API getDocument() should return proper title in document.documentIdentity.label
IKB-1863	ikbProcessServicesWS can't connect to ikbProcessServices EJB
IKB-1864	AD-integrasjon i Quickstart fungerer ikke
IKB-1867	Events: Run batch shows incorrect status on jobs
IKB-1868	Quicklinks should be displayed even if you set "iKB Attrib: DocumentID" to "must have value" and it does not have a value
IKB-1870	ikb_pck_admin.save_prompt updates unchanged rows in PROMPT with new timestamp
IKB-1873	Development mode toolbars should only be rendered on html-pages (i.e. not json, xml, et al)
IKB-1877	Allow manual specification of a page component's markupId
IKB-1878	Quickstart: Import of document/document_attribute is NOT working with Oracle DB 11.2
IKB-1879	OID Sync - Wrong instance name used in exception-logging for retrieve_user_information
IKB-1880	ikbPopup-based dialog boxes are mis-positioned in ie7, and page is "locked" (rendered grey, modal)
IKB-1890	Upgrade CodeMirror to version 2.3
IKB-1892	Påkrevde attributter av typen dimensjon valideres ikke lengre ved Edit
IKB-1896	Update of a title for an inactive version of a document, leads to update of the document itself
IKB-1898	Reimplement and improve existing Ext3 components using Ext4
IKB-1901	Norwegian characters are erroneously encoded in old style picklists
IKB-1904	The Url til "Edit Document" is invalid if the target has dynamic parameters
IKB-1908	Info about the returning page is lost (p_form_back_url) when we save a document more than once
IKB-1911	Add several attachments in one operation from Form
IKB-1913	p_operation parameter no longer works in search sources
IKB-1914	Users are always created with Norwegian language when running OID sync
IKB-1926	Support paging when querying LDAP
IKB-1928	Form: character string buffer too small ved for mye html kode eller tekst mellom
IKB-1931	Export: Keep Merge / Delete details flags when creating new transport sets
IKB-1934	Create a function for converting clob to blob (evita_portal_generic.clob_to_blob)

5.32. Release 6.0

Issue #	Description
IKB-1455	ikb_viewer_api initialization — change data caching mechanism for PL/SQL
IKB-1529	Unable to run the new image archive with a different ikbViewer-path
IKB-1595	rss_feed should not change database session settings
IKB-1133	Gibberish in some k*nett forms after upgrade (applies to Chrome and Safari)
IKB-1426	Fjerne bruk av Javascript ved standard søk
IKB-1535	URL documents are opened in same window if no target is defined
IKB-1547	Create Batch service that renders a page using the page engine
IKB-1550	FreeMarker templates for DimensionViewer and MenuViewer should provide access to URLs that are not already HTML-encoded, for example for use in JSON-scenarios
IKB-1554	Very slow editing of Dimension Viewer with 200K+ dimensions
IKB-1562	Errors during import/export are sometimes not saved to log file
IKB-1572	Fix bug where check in and check out (cico) fails
IKB-1573	Mail from iKnowBase does not handle norwegian charachters and gets marked as spam
IKB-1604	When saving document from Microsoft Office, events will not fire for the document
IKB-1544	Create embeddable page engine
IKB-1560	Upgrade Quickstart application server to jetty 8
IKB-680	Split Development Studio "development tools" into more sub-sections
IKB-945	Forbedre feilhåndtering ifm SES-crawler konfigurasjon
IKB-1257	ikB crawler: IKB_CRAWLER_LIST nut updated correctly
IKB-1301	Propagate request id into database logs, for easier log rendering
IKB-1443	Usertoken does not give access to documents via ikbViewer/Content. However accessing the document through a page works.
IKB-1449	Move ikbViewer NLS-texts from java to ikb_nls_string
IKB-1451	Søkekilde: endre default verdi på "add dynamic parameter" til "can have value, in search filter"
IKB-1463	Aksjonsknappene inne på komponentene ("save", "save and close" etc.) bør ligge nedest på hver side
IKB-1462	Link til oppsett av hurtiglenke og parametre fra viewer
IKB-1466	Page: disable-checkbox for komponenter
IKB-1472	Bildearkiv: Titler er ikke i alfabetisk rekkefølge. Feil både ved visningsvalget fra a-å og fra å-a.
IKB-1469	Får feil ved åpning av styleset i ikbStudio hos NSF (andre styleset virker)

Issue #	Description
IKB-1477	Add audit information (created/changed) to ikb_site database table.
IKB-1480	Add text elements to domain, accessible from all templates
IKB-1487	Remove old office addin server endpoints
IKB-1499	condition - sjekk format file/text/link fungerer ikke
IKB-1504	Menu in Developement Studio (developement tools) should be have two modes; "often used menuitems" and "all menuitems"
IKB-1505	IKB-1503 Reimplementation of the document archive
IKB-1518	Content Studio: Document type icons not showing due wrong css styling
IKB-1531	Textile-based documentation renders using wrong encoding, with errors on ÆØÅ
IKB-1532	Add support for accessing domain information in template models
IKB-1536	The upload handler should properly handle multiple files for a single upload (used for drag+drop)
IKB-1540	Error when synchronizing from Active Directory
IKB-1545	Oracle-tags in portlet_style_set should always run as the connected user
IKB-1548	Image Archive: Show which image folder is selected when the folder panel is collapsed
IKB-1551	API Reference Documentation: DimensionTypes not documented in the DimensionViewer chapter
IKB-1552	DimensionViewer: A FreeMarker template for a dimenson viewer configured with a dimension attribute doesn't get access to all dimensions
IKB-1553	Fix varchar-limitation in PORTLET_MANAGE_MENU with regards to page name
IKB-1555	Dimension Viewer is slow when there is a large number of dimensions one level below what is loaded
IKB-1559	Add a report in Database admin that will show incompability between custom save function and ikb_ce_custom_editor_portlet.save_document
IKB-1564	FreeMarker ContentViewer Model: Add sort information property
IKB-1569	Search source / Content viewer: Change parameters used for sorting from numbered indexes to logical names
IKB-1571	Bug in language support when Ext4 and image picklist are loaded dynamically; will always use norwegian language
IKB-1574	iKB Service API: It should not be possible to change a document, which requires check out, using the service API
IKB-1587	Spring-ws should be upgraded to version 2.0.3
IKB-1586	ikbStudio: "Advanced OID synchronizing" should be called "LdapSync"
IKB-1579	Handling activation of document version when referenced values have been deleted since the version was created

Issue #	Description
IKB-1583	Development Studio > Preview pages: Add support for tagging with subsystem
IKB-1509	Scripts specified in ${page.resources} should be served from /ikbViewer, with version-specific filename and maximum caching
IKB-1513	JavaScript target for image picklist on domain definition doesn't work
IKB-944	Sendmail - attachments - iso8859px
IKB-1340	Søkekilde (og ${viewer.search.form}) genererer ikke "title"-attributter
IKB-1606	/ikb$runner should always require authentication
IKB-1615	[HD-68297] Newsletter: Links created in newsletters don't work on iPhones
IKB-1616	Popups from forms (picklists) opens in caller window
IKB-1620	Add (unsupported) json endpoint for changeDocumentType
IKB-1655	Fix too short varchar-variable in IKB_SHOW_CONTENT
IKB-1657	Extended attribute conditions available in viewer
IKB-1423	Presentasjonsmal: Kunne bruke template med null innhold
	Simplified configuration of WebServices security
	Extended DocumentModel with properties isFile, isUrl and isText
	Added many more reports to the /ikbStudio database tab
	Moved quickstart from separate program, into plugin to Quickstart setup program

Chapter 6. Supported platforms

6.1. Supported web browsers

iKnowBase is built to work with any recent Web Browser.

See WebDAV section for WebDAV specific browser requirements.

6.2. WebDAV

WebDAV uses Microsoft Office URI scheme protocol extensions for triggering direct edit of Microsoft Office documents.

This feature is available and supported by the following web browsers and office versions:

- Windows with Microsoft Office 2010 SP2 and later
    - Internet Explorer
    - Edge
    - Firefox
    - Chrome
- MacOS High Sierra 10.13.6 with Microsoft Office 16.18 (181014)
    - Firefox
    - Safari
    - Chrome

6.2.1. Directory servers

- Oracle Internet Directory (OID) will from 7.1 not be explicity tested before a new version is released, but the code base will be supported for a time ahead.

6.2.2. Forms based authentication

- Currently not stable and supported on Office 2016 for Mac (IKB-3060)

6.3. Supported application servers

iKnowBase supports these application servers:

- iKnowBase Web Server
- Oracle WebLogic 12.2.1.0.0 with patch #23124727.
- Oracle WebLogic 19c

6.4. Supported Java versions

From iKnowBase 8.1, Java 11 or newer is required for running the iKnowBase applications. iKnowBase 8.0 and earlier require Java 8 or newer.

6.5. Supported database servers

For the database server, Oracle 11g and newer is supported. The latest supported version of the database is preferred, currently 19c.

6.6. iKnowBase Instant

iKnowBase Instant requires Internet Explorer 10 or newer to function properly.

Internet Explorer 9 or older does not support the unsubscribe/disconnect technique used when Instant is used in a CORS setup. This also applies to Internet Explorer mode, i.e. running Internet Explorer 9 mode in Internet Explorer 11.

6.7. File Conversion Service

File Conversion Service is only available for 64-bit Linux servers.