



Liferay
Digital
**Experience
Platform**

New Features Summary

Liferay has redesigned its platform with new functionality in Liferay Digital Experience Platform (DXP). The following is a summary of the key new features in Liferay DXP.

Product Overview

Liferay DXP is software designed for creating exceptional, consistent customer experiences across mobile, web and connected devices through a full understanding of customers. The next evolution of our platform, Liferay DXP provides businesses with a flexible, scalable architecture, the advanced capabilities of our flagship portal technologies along with prebuilt applications, enabling companies to quickly build solutions for IT, marketing and customer experience teams.

New Key Features

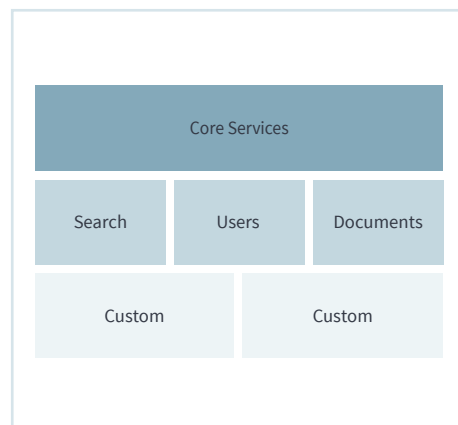
A Foundation for Digital Business

Successful digital businesses require platforms that are built on solid, reliable IT. The Liferay platform has been improved with features like modular architecture, a more powerful search engine, and better tools for testing and upgrades.

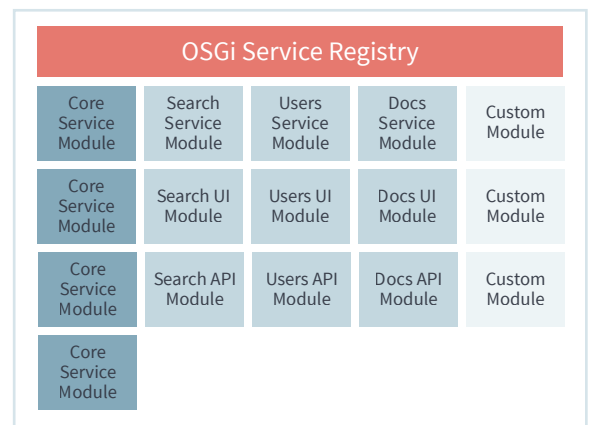
MODULARITY

Liferay DXP's modular architecture empowers businesses to build powerful, adaptable, lightweight and innovative systems for the digital world. Built using a framework that allows for modular deployment of applications, portlets and libraries, Liferay DXP gives businesses extensibility unthinkable until now and an elegant development model.

Monolithic (Previous Versions)



Modular (Liferay DXP)



CLUSTERING

Clustering in Liferay is provided through the Cluster Link tool, which uses Ehcache as the default cache replication mechanism. This capability is now only available in Liferay DXP.

ELASTICSEARCH

The default search engine in Liferay DXP is now Elasticsearch for improved monitoring, tuning and clustering. Subscribers have the option to extend Liferay Support with support for Elasticsearch installations.

SINGLE PAGE APPLICATIONS

Thanks to Liferay's own Senna.js project, all applications (even custom ones) are automatically configured as Single Page Applications (SPAs). Only the pieces of a page that are necessary are loaded, leading to reduced bandwidth usage, load times and rendering time in the browser. This means users will perceive faster loading and performance on the new Liferay platform.

UPGRADE TOOL

A new stand-alone upgrade tool greatly improves the experience of upgrading your Liferay installation to the latest version. Upgrading to DXP is now separated into Core upgrades and Module upgrades, of which the latter can be executed independently. In the event of an error during the upgrade, Module upgrades can be restarted to resume from the last completed stage.

SERVICE ACCESS POLICIES

Benefit from an additional layer of web service security defining services or service methods that can be invoked remotely.

CONFIGURATION ADMIN

In Liferay DXP, users have access to a better way to manage configurations through the Configuration Admin services provided by modularity.

METAL.JS

Liferay has developed Metal.js as a future proof JavaScript library that serves as the core for all of Liferay DXP JavaScript.

FRONT-END UNIT TESTING

Unit testing is a crucial part of the development cycle that ensures that code is functioning properly. Liferay has made this a priority in Liferay DXP throughout the product. Within the UI, this is accomplished through a tool called Mocha.

GOGO SHELL

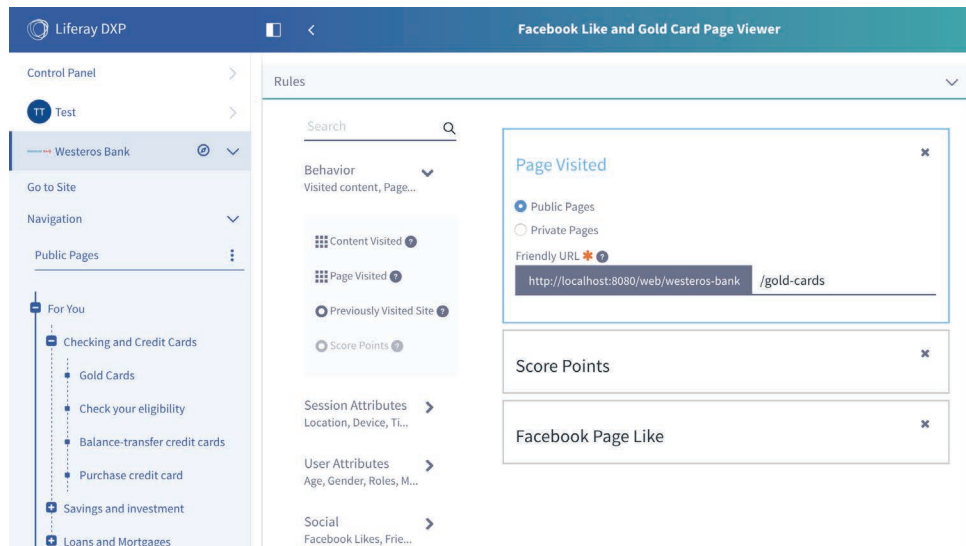
With Liferay DXP being a modular platform, Liferay applications are now composed of one or more modules. To interact with Liferay's module framework, users can take advantage of the Felix Gogo shell.

Modern Web Experiences

Web experience features provide support for creating and managing web experiences, including audience targeting for marketing campaigns, content authoring, geolocation and staging tools. Create consistent, personalized experiences quickly and easily.

AUDIENCE TARGETING

The new version of Audience Targeting contains advanced segmentation of audiences with new segmentation rules. Visitor segments can be created based on user profile custom fields, user language, IP address, sign up date and last login date. A report builder is available to generate reports for segments and campaigns. Additional reporting capabilities include the ability to view and download the list of users of each segment. Finally, targeted assets can be filtered in the Asset Publisher using advanced filtering settings.



Frequent visitors of a bank's gold cards page can be placed into a segment using Audience Targeting.

OPTIMIZED NAVIGATION MENUS

A new menu design provides an easier way for administrators to find the function they are looking for and for registered users to access all administrative and personal applications from a single place. The navigation is fully extensible to allow customizing for any needs.

SITE CONTENT SHARING

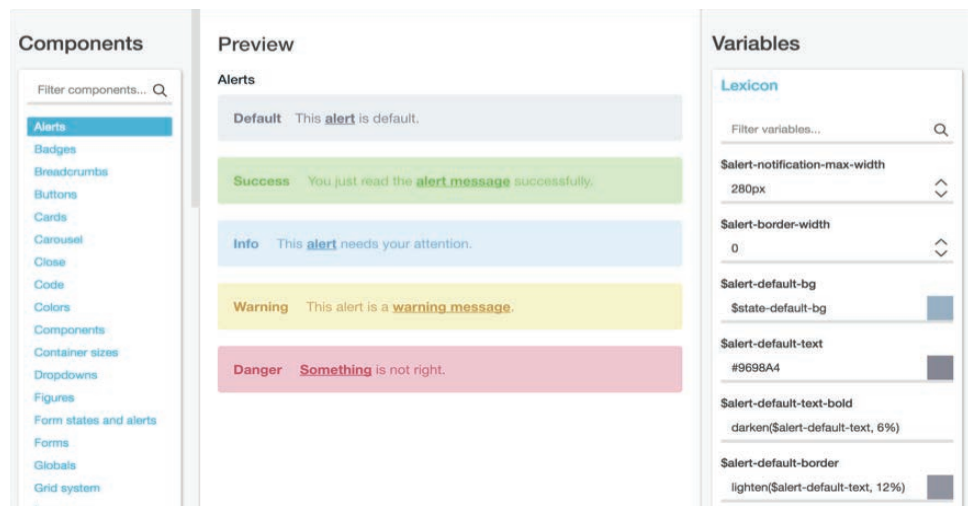
Liferay DXP now has the capability to share various content pieces between child and parent sites. Previously when you wanted to share a structure or template you had to put it in the Global Scope. As the administrator of a child site, you will be able to use all the structures, templates, categories, application display templates and more from any of your parent sites that allows for it.

WEB CONTENT DIFFS

Web Content can now compare different versions of content, just as users can in the Wiki portlet. Web Content can also be compared when the content is being processed through a workflow. This makes it easier for the content approver to review the changes before approving them.

LEXICON

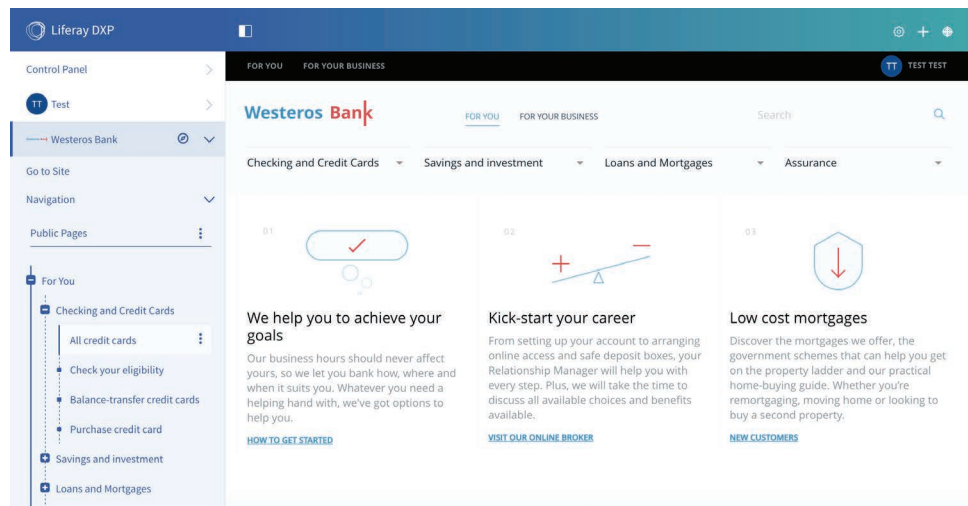
Lexicon was developed to provide a consistent and easy to use API that extends Bootstrap 3 to help developers build UI components in and outside of Liferay.



Lexicon Customizer makes it easier to change any UI component.

MODERN, FAST SITE CREATION

A series of improvements for creating dynamic and visually stunning sites provides more power to administrators for faster site creation. A new set of modern themes and site templates available in Liferay Marketplace provides a foundation for quickly creating your websites with features such as application decorators, application display templates, sets of pages and more.



The Westeros Bank site template automatically creates a framework for you to customize.

SIMPLIFIED STAGING CONFIGURATION

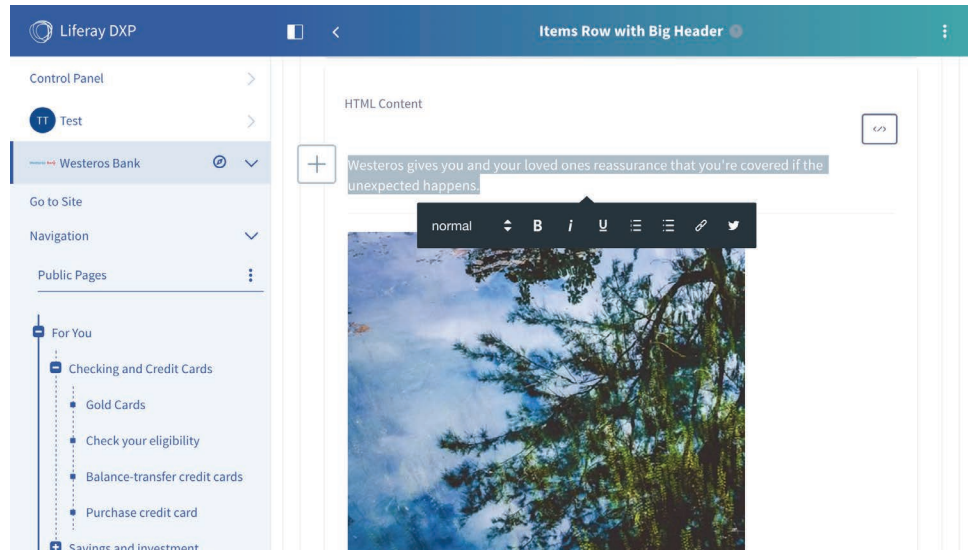
Publishing from staging to live is as easy as clicking one button. Content authors can start a simple publication process and also make more advanced choices on what to publish. Additionally users can reuse the latest configuration or create publication templates for similar and repeating publication processes.

STAGING PERFORMANCE

Data validations are made earlier in the beginning of the publication process, to provide faster feedback to staging users. Article queries and API behavior have both been tuned for performance improvements. Resource consuming indexing processes no longer overlap with ongoing publications.

SIMPLE CONTENT AUTHORIZING WITH ALLOY EDITOR

Authors now have access at any time to Liferay's powerful authoring applications thanks to AlloyEditor, a WYSIWYG editor built on top of CKEditor. Designed using React, a JavaScript library developed by Facebook, AlloyEditor is designed to help easily create web content. Developers are able to use the OSGi framework to customize CKEditor's configuration in two ways: modifying the configuration and adding new behavior.



Inline editor toolbar pops up once you highlight text.

MEDIA SELECTOR

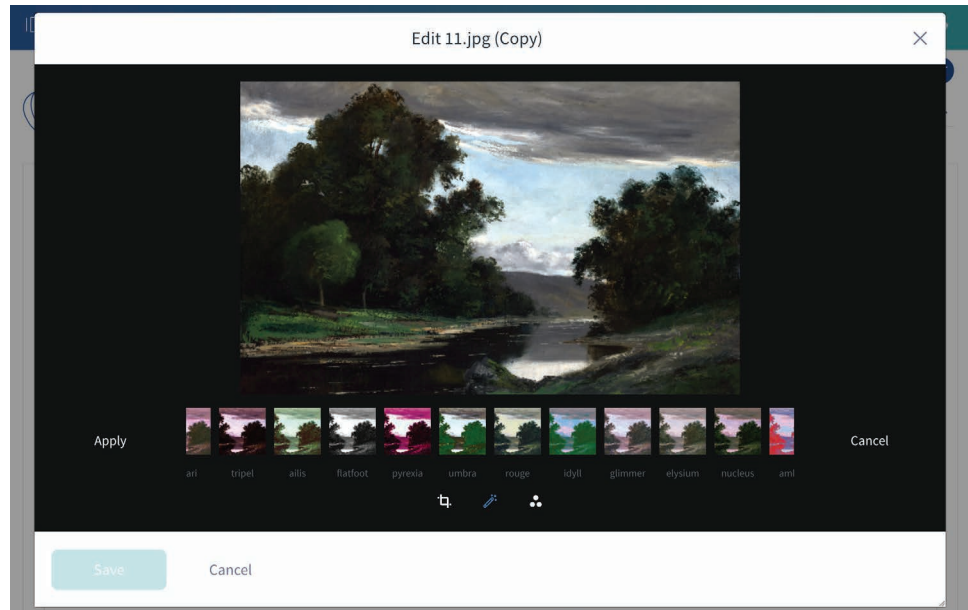
The ability to upload a picture, select an uploaded file, and even take a picture or video to add to your content is now easy with Liferay's new media selector. This feature is also highly extensible so that new sources of media (e.g., Google, Flickr, YouTube) can be added to any application using the selector.

RIGHT TO LEFT LANGUAGE SUPPORT

Liferay's Right to Left Language Support is fully functional out-of-the-box. Users will no longer need to install a separate app.

INLINE IMAGE EDITOR

The new image editor allows for simple image editing directly from within Liferay, eliminating the need for an external tool while creating content. Easily resize, crop and make colors adjustments to any image uploaded to Documents and Media from within blogs or any other application that uses an item selector. The image editor is easy to customize and allows developers to create and deploy tools that modify images.



Inline editor toolbar pops up once you highlight text.

PUBLISHABLE DATA

When staging content in DXP, users can now publish dynamic data records, comments, ratings, references to content from other sites, and custom fields, as well as any other assets that are combined within the Asset Publisher application.

MULTIPLE STEP STAGING

Remote Staging has typically worked with two environments: UAT and Production. DXP allows the option of a multi-step staging environment starting with a Content Development environment which is configured to publish to a UAT environment. The UAT environment is configured to publish to Production.

EXPORT/IMPORT/PUBLICATION LIFECYCLE EVENT LISTENERS

Now developers can write code pieces very easily to react on certain events during an export or import process. They can use this to facilitate logging or auditing or kicking off tasks after a certain event has happened.

GEOLOCATION

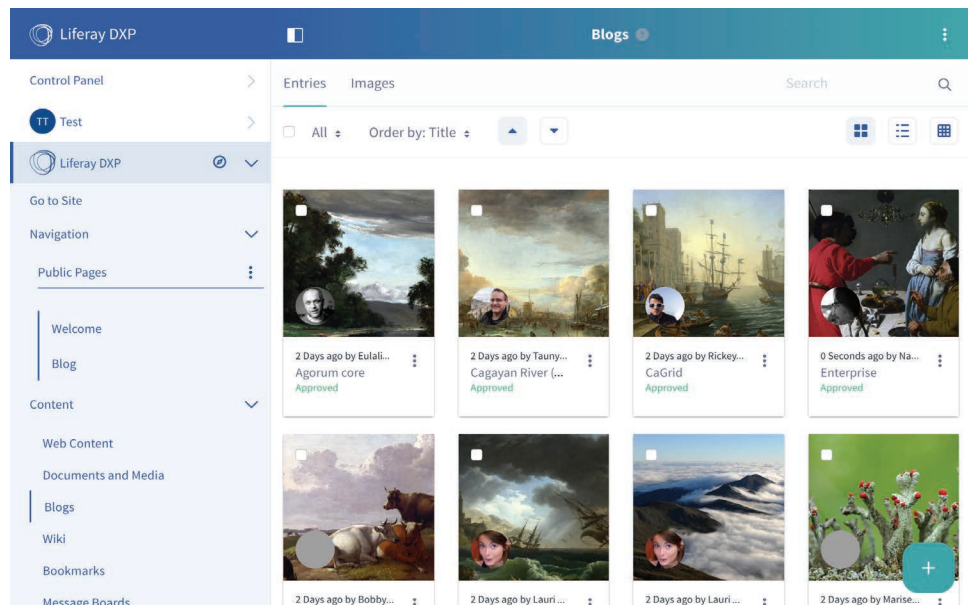
Liferay DXP provides the ability to geolocate all web content, data lists, documents and media. It also allows administrators to leverage the power of Liferay's Asset Publisher to create lists of geolocalized content and publish them in a map.

Improved Collaboration + Document Management

The changes to collaboration and document management features give users more ways to communicate and share information, helping you eliminate departmental silos and foster better collaboration.

BLOGS EXPERIENCE

Liferay DXP contains several improvements to the blogs experience, including the ability to set cover images and more convenient and reliable image uploading and sharing. Users can enjoy a modern WYSIWYG editor, AlloyEditor, along with the Inline Image Editor for easy creation of blog content and drag-and-drop image placement directly into the blog text. Features also include publication date, RSS support, threaded user and guest comments, tags and labels, social bookmarking links, email notifications of blog replies and an entry rating system.



Card view of your blogs

KNOWLEDGE BASE

The Knowledge Base interface has been redesigned for a more convenient user experience. Admins can now create folders to organize articles within Knowledge Base and import Markdown articles.

SOCIAL COLLABORATION APPS

Microblogs, contact center, announcements, ability to invite members and other social collaboration features are available out-of-the-box through multiple dedicated apps.

LOCALIZED EMAIL NOTIFICATIONS

All email notifications sent by Liferay DXP can be translated to multiple languages.

USER MENTIONS

Users can now @mention another user within blogs and comments. Mentioned users will receive a notification that they have been mentioned in that particular asset.

WORKFLOW + SUBSCRIPTIONS FOR WEB CONTENT FOLDERS

Web Content Folders now allow users to subscribe to specific folders and content types and also provide the ability to set up separate workflow processes per folder and content types. Web Content Folders now also have the ability to restrict specific web content structures to a specific folder.

Enterprise-Ready Forms

New support for form creation gives users more control over surveys and other dynamic forms, along with updates for supporting Liferay apps and extensions.

REPLACING XML

As a result of the new Liferay Forms application, several portlets are moving from the use of XML data to JSON, in order to reach increased flexibility in regards to containing additional data that XML could not provide.

LIFERAY FORMS

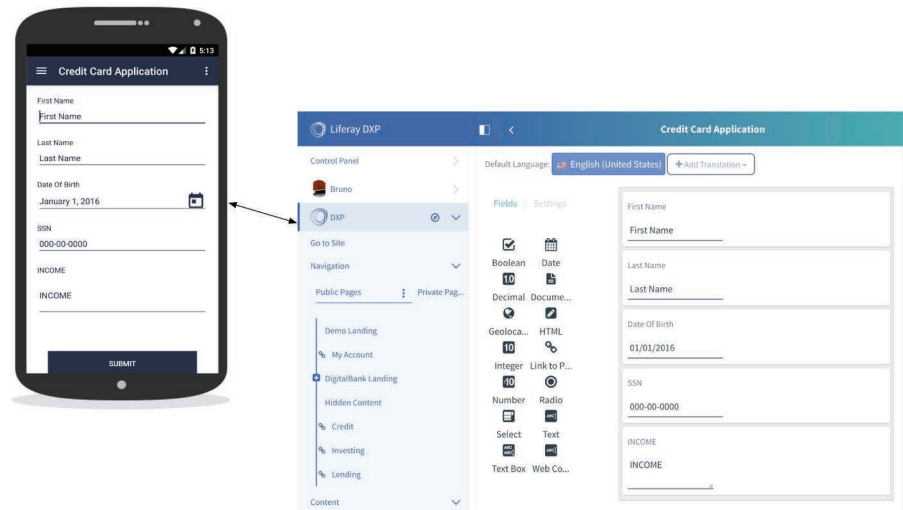
A brand new application for defining and publishing advanced dynamic forms allows for complex multicolumn layouts and the ability to span several pages. The new application offers more control over form fields, such as the ability to customize fields or hide them with visibility expressions. Forms can be published in any Liferay site simply by dropping the form into a page or providing a URL that links directly to a full page form. An additional feature is the ability to pull in data from an external source (i.e., “Data Providers”). Once the administrator configures the Data Provider, the data can be shared across any form. On the roadmap is the ability to use the Forms API to render the form engine, even for sites that use Liferay Forms alongside another technology. Liferay Forms is planned to eventually replace the Web Form app and the Dynamic Data List (DDL) Forms from previous versions.

The screenshot displays the Liferay DXP 'Edit Form' interface. On the left is a navigation sidebar with sections: Control Panel, Test, Westeros Bank, Go to Site, Navigation, and Public Pages. The main content area is titled '2016 Survey' and includes a progress indicator with four steps: 'Your Information' (active), 'Overview', 'Technology In Use', and 'Mobile and Browsers'. Below the progress bar, the form content includes a title 'Your Information', a description 'Add a short description for this page.', and a note 'All fields marked with * are required.' The form contains several fields: 'What is your name *' (text input with example 'e.g. John Adams'), 'What is your email address? *' (text input with example 'e.g. john.adams@liferay.com'), 'What is your best estimate of how many employees work at your organization?' (radio buttons for '100 to 999' and '1,000 to 4,999'), and 'What is your role within the organization?' (radio buttons for 'Programmer/Developer', 'Development manager', and 'Product/marketing manager').

The updated form creation interface is more intuitive and lets you utilize new features, such as multicolumn layouts and advanced control over form fields.

Exceptional Mobile Experiences

The new suite consists of a collection of existing mobile-enabling software: Mobile SDK, Liferay Screens and Liferay Push. The updated mobile tools enable you to create applications for collaboration and social, while ensuring that the information on your phone remains completely secure.



Customer information on the mobile app automatically syncs with your Liferay DXP site.

New features in Liferay Mobile Experience include:

- A new set of screenlets for Liferay Screens, including Image Gallery, Blogs, Comments, Ratings, Generic Asset Display, PDF Display, Video Display, Audio Display and Image Display.
- Enterprise security features such as database encryption. All stored data will now be encrypted in the phone's local database.
- Improved support for structured web content in the Web Content Screenlet.

Liferay Developer Tools

An updated collection of tools helps Liferay DXP users manage the support and development of Liferay projects with modern practices.

LIFERAY DEVELOPER STUDIO

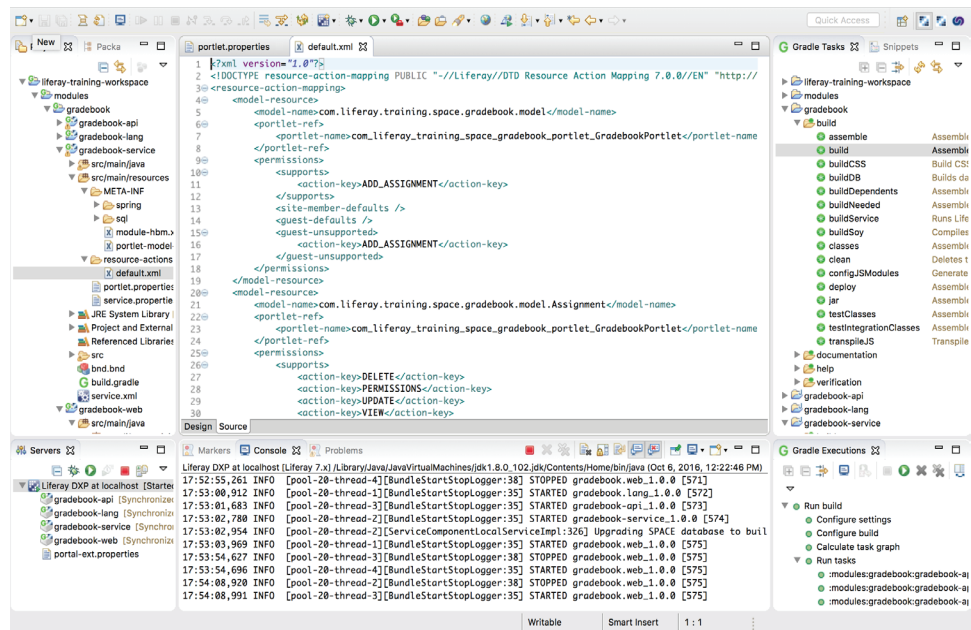
In addition to support for Liferay Module Project, Liferay Plugins SDK 7 and Liferay Workspace, Developer Studio comes with Liferay Component Class Wizard and a Migration Tool that identifies breaking changes from previous Liferay versions.

BLADE CLI

The **Blade CLI** is the easiest way for Liferay developers to create new Liferay modules. Although the Plugins SDK is also supported, Blade CLI lets developers create projects that can be used with any IDE or development environment. Blade CLI is a command line tool bootstrapped onto a Gradle-based environment that is used to build Liferay DXP modules. This tool set provides a host of sub-commands that help Liferay developers create and deploy modules to a Liferay instance.

LIFERAY WORKSPACE

Liferay Workspace is a generated environment for modular development that is built to hold and manage Liferay projects. For package management needs, developers can turn to JPM4J. It is very easy to import Liferay Workspace projects into any IDE with built-in Gradle support, which eliminates the need to only use Eclipse for development.



Using Liferay Workspace in a typical project.

What's Next

Learn more about how Liferay can help your business take the next step in your digital strategy. Request a demo from one of our team members at liferay.com/request-a-demo.



Liferay makes software that helps companies create digital experiences on web, mobile and connected devices. The Liferay platform is open source, which makes it more reliable, innovative and secure. Companies such as Carrefour, Coach, Danone, Fujitsu, Lufthansa Aviation Training, Siemens, Société Générale, VMware and the United Nations use Liferay. Learn more at [liferay.com](https://www.liferay.com).

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