

D2 Smartview SDK

version: 24.4.0



Table of contents:

- [Documentum D2 Smartview SDK](#)
 - [How to prepare and start with the development environment](#)
 - [1. Download the developer tools for your OS:](#)
 - [2. Install the developer tools for your OS](#)
 - [3. Create the development workspace:](#)
 - [4. Get familiar with Workspace assistant](#)
 - [5. Create a plugin project:](#)
 - [6. Getting started with SDK development](#)
 - [7. Start coding](#)
- [Architecture](#)
 - [Technology](#)
- [Documentum D2 Smartview SDK](#)
 - [How to prepare and start with the development environment](#)
 - [1. Download the developer tools for your OS:](#)
 - [2. Install the developer tools for your OS](#)
 - [3. Create the development workspace:](#)
 - [4. Get familiar with Workspace assistant](#)
 - [5. Create a plugin project:](#)
 - [6. Getting started with SDK development](#)
 - [7. Start coding](#)
- [Overview](#)
- [Documentum D2 Smartview SDK](#)
 - [How to prepare and start with the development environment](#)
 - [1. Download the developer tools for your OS:](#)
 - [2. Install the developer tools for your OS](#)
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 - [5. Create a plugin project:](#)
 - [6. Getting started with SDK development](#)
 - [7. Start coding](#)

Documentum D2 Smartview SDK

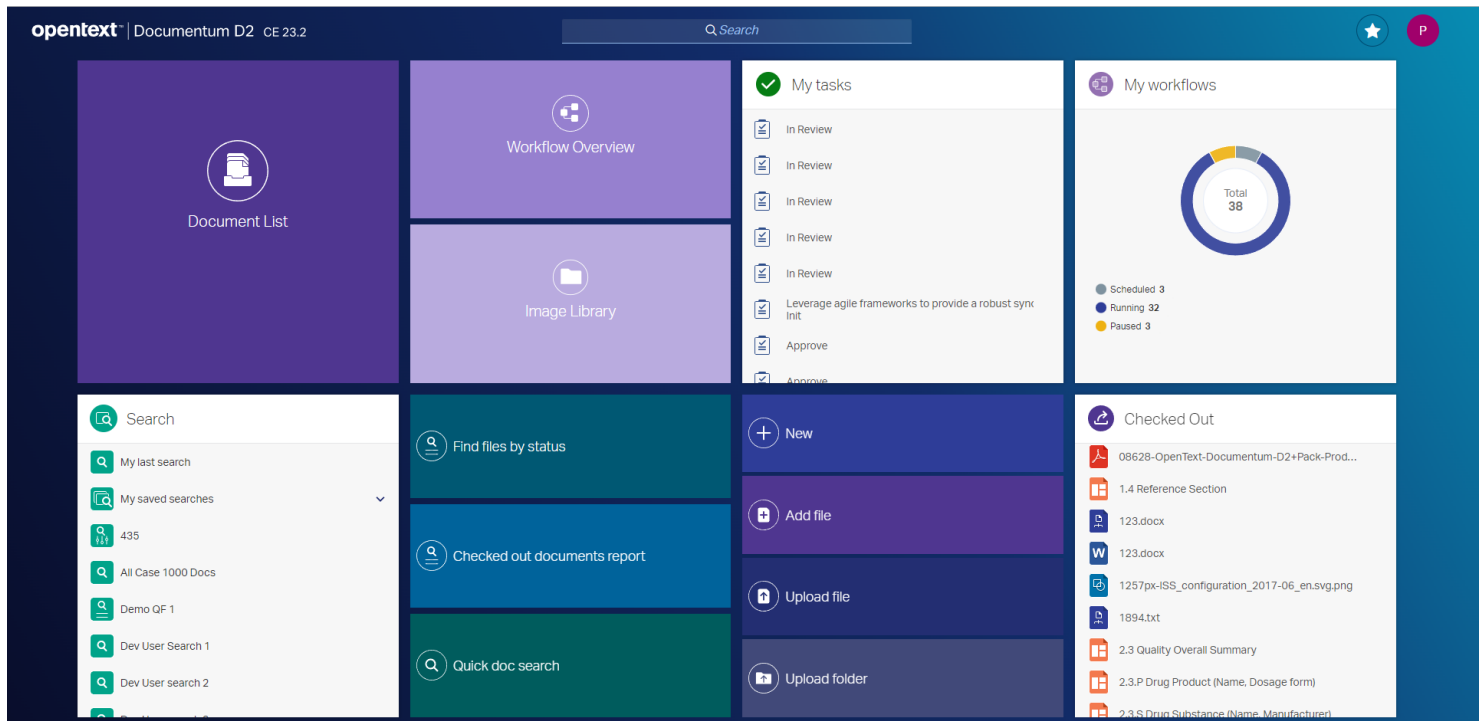
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- D2 Smartview UI extension environment.
- D2-REST services extension environment.
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It also includes a few tools to create and maintain a development workspace.

With the D2 Smart View SDK you can build enterprise-ready software components for Documentum D2 Smartview runtime to cater custom business needs.

Out of the box, D2 Smart View landing page looks like:



How to prepare and start with the development environment

1. Download developer tools
2. Install developer tools

3. Create the development workspace
4. Get familiar with SDK tools
5. Create a plugin project
6. Start coding

1. Download the developer tools for your OS:

- JDK - JDK is required to compile Java code present within a development workspace.
Use JDK 17 or later.
See <https://openjdk.java.net>
- Maven - Apache maven is the secondary build tool used in this SDK development workspace.
Recommended version is 3.8.2. A different version may not be fully compatible.
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- NodeJS - JavaScript VM to execute the SDK tools, build tools and to run the development web server for UI code.
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3. Create the development workspace:

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# 1. Extract the SDK
# 2. Open a command prompt at the extracted folder

# Execute batch script ws-init.bat
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# It will take a while to fully initialize the workspace.
# Once initialization completes successfully, the workspace assistant starts
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# To access the documentation without the workspace assistant, you can run the following
command in a command prompt/terminal at the workspace root.
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4. Get familiar with Workspace assistant

Check out the [Workspace assistant](#). It's a good idea to familiarize yourself with the general aspects of the [SDK](#), this can be done later though.

5. Create a plugin project:

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# Open command prompt at workspace root and run
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# Once done, type and run-
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# Or, alternatively run the workspace assistant again and select "Build all plugins in
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6. Getting started with SDK development

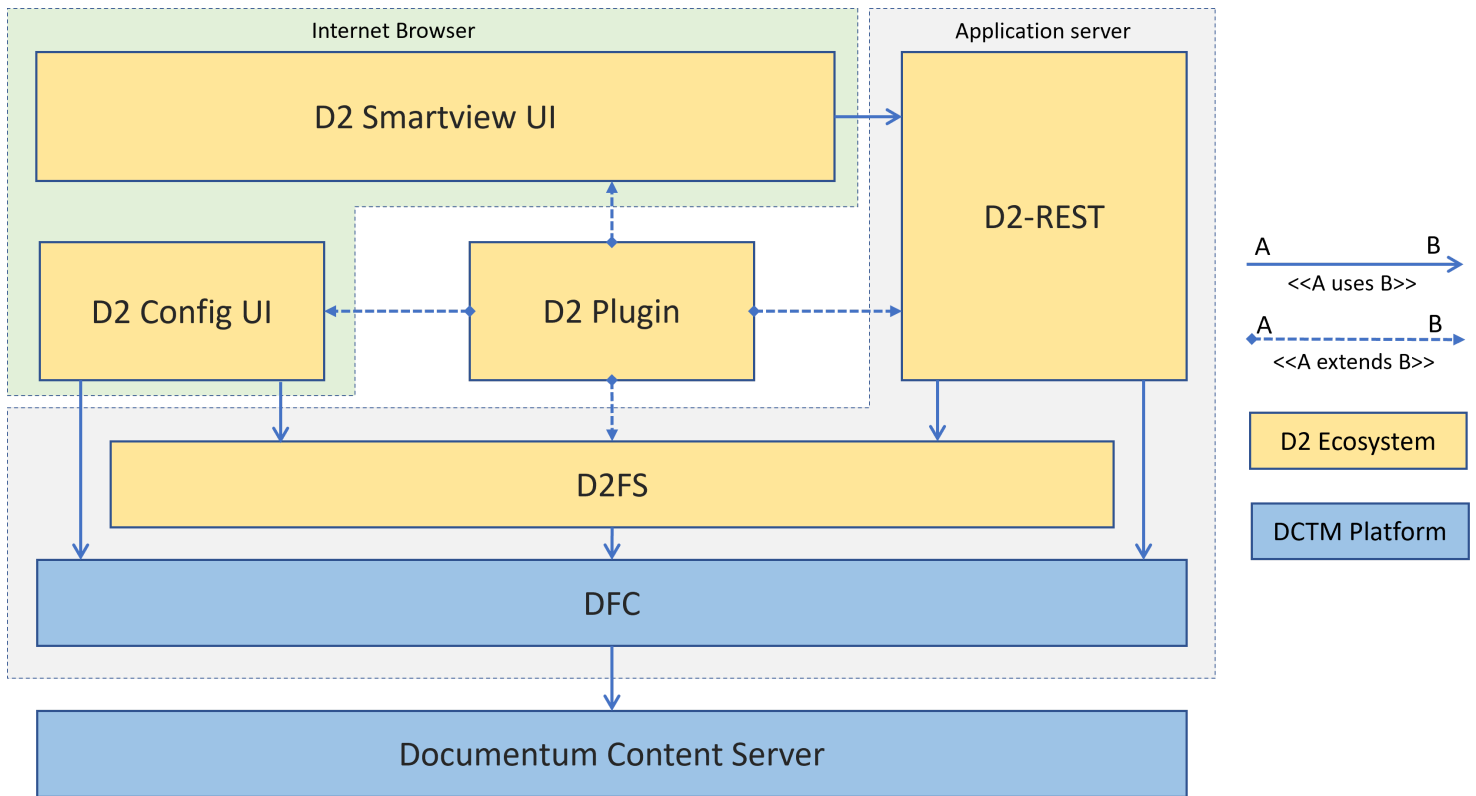
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7. Start coding

Check out the [API documentation](#) and start coding as per business requirement.

Architecture

A simplified representation of the D2 Smartview(D2SV) runtime.



A central component of the runtime is D2 Plugins a.k.a D2FS Plugins. A D2 Plugin is loaded dynamically in the D2SV Ecosystem and it can primarily augment functions of D2 Foundation Services(D2FS).

The D2SV SDK API is built around the same D2 Plugins architecture and additionally it can augment functions of D2SV UI & D2FS-REST runtime.

The SDK deals with hybrid Maven + NodeJS project which has both Java & Javascript code along with other static resources organized in a certain structure. Upon build, the SDK compiles and packages the built output into a Jar. This Jar file can then be dropped inside the `lib` folder of a D2 Smartview runtime. The D2SV runtime loads the pluggable components from within the Jar dynamically.

Technology

The D2 Smartview is a web application and requires a hybrid middleware runtime. JVM runs the Java written back-end code and an Internet browser's Javascript VM runs the front-end. All the communication between FE & BE happens through AJAX request-response.

- The Java based back-end uses the Spring WebMVC Framework, configured to run in an application container, along with other proprietary and open-source libraries.
- The Javascript front-end uses Backbone & Marionette UI framework along with jQuery, RequireJS, Underscore, Handlebars etc. libraries.

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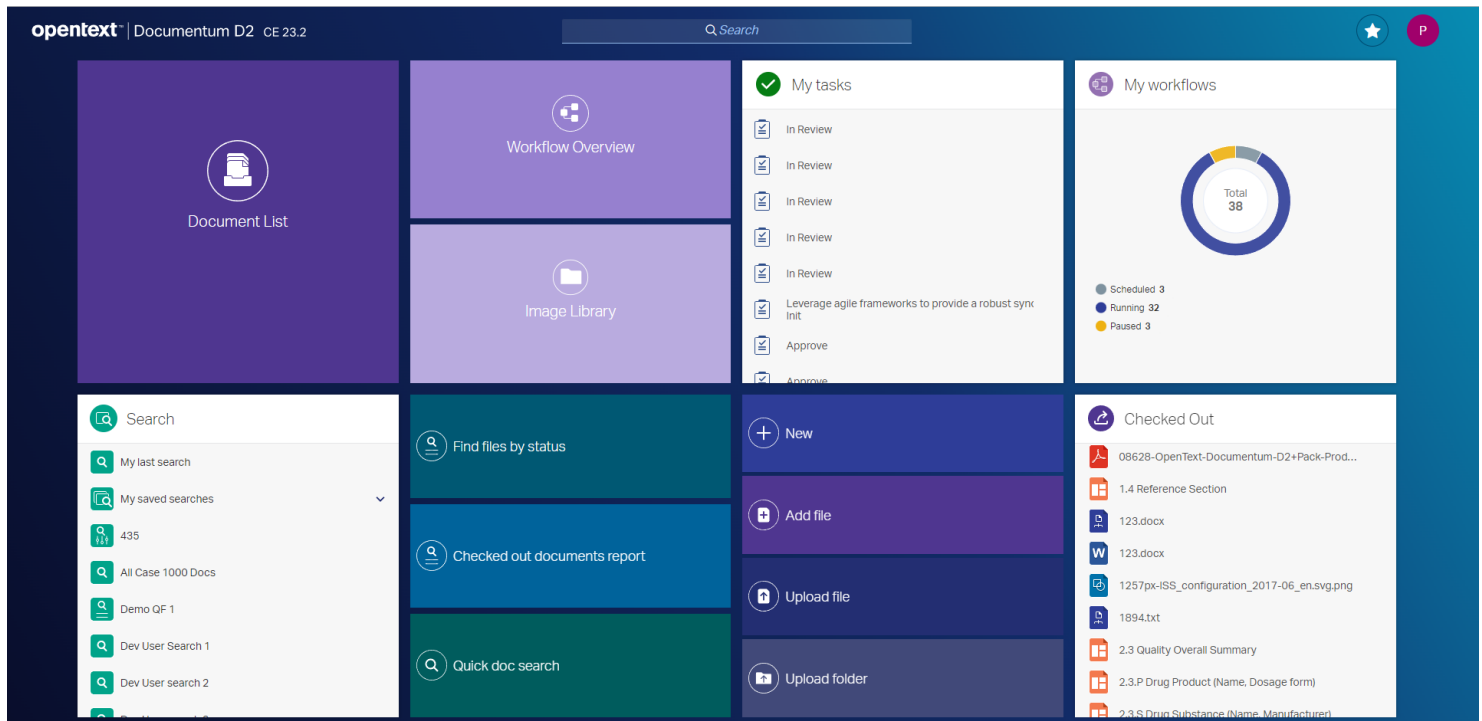
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Overview

The API includes classes, objects, methods & extension points that could be used to enhance/alter existing components of D2SV runtime or write brand new components for it.

The D2SV runtime is comprised of

! FRONT-END

Runs on Internet browsers, written using Javascript, HTML, CSS.

Components of the application are loaded using RequireJS framework that comes bundled with the runtime. A bunch of other open-source libraries are pre-packed as part of the runtime. Below is a list of libraries and their RequireJS module dependency path -

- BackboneJS (nuc/lib/backbone)
- MarionetteJS (nuc/lib/marionette)
- UnderscoreJS (nuc/lib/underscore)
- jQuery (nuc/lib/jquery)
- MomentJS (nuc/lib/moment)
- jQuery Fancy tree (d2/lib/fancytree/jquery.fancytree)
- D3 JS (csui/lib/d3)

Available requirejs plugins -

- i18n - Loads a localization module
- hbs - Loads handlebar template files (*.hbs)
- json - Loads JSON files (*.json)
- css - Loads CSS files (*.css)

ⓘ BACK-END

Runs on Web application container, Written in Java.

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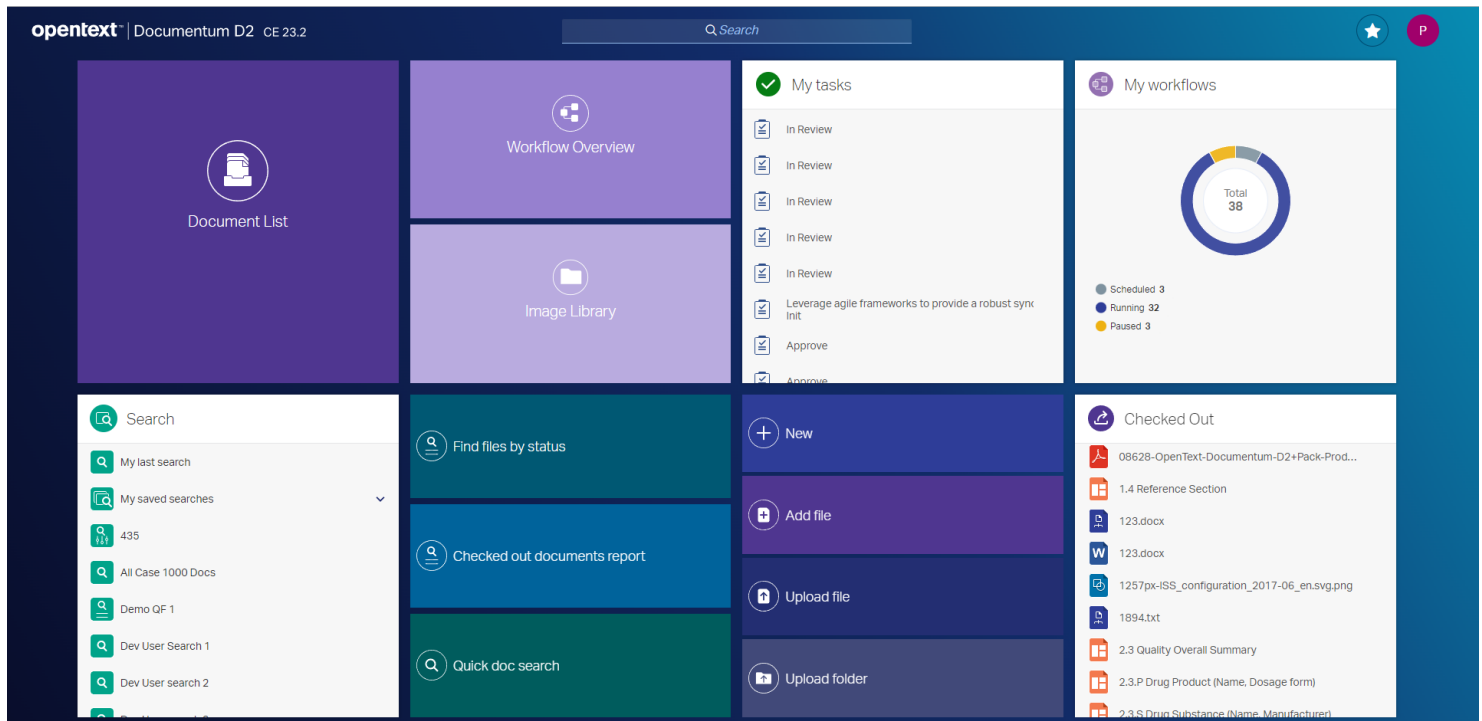
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