Digital Prepress Suite

mindfire

Overview:

The project involved developing an application with critical functionalities for a highly respected and well-established player in the publishing industry. The client used the integrated application to manage their products, media, projects, etc. The team implemented customized modules to offer features for cross-selling and up-selling. This project enabled the client to manage the entire supply chain and improve their overall productivity.

Client details:

Name: Confidential | **Industry:** Publishing | **Location:** Germany

Technologies:

Java, Spring, Angular, InDesign, Vuforia, AWS, PERL, WebObjects

Project Description:

The client had an old application that was becoming difficult to scale up and manage for IOS and Android devices. After analyzing the client's need, team@Mindfire offered to develop two applications. The intent of the first application was to develop modules with multiple features which would help overcome the operational issues and improve the document publishing process. The AR Application helped the client to move from the conventional QR and barcode scanning to image-based object recognition using AR technology and 3D visualization of elements and video contents. It was critical to have an intuitive and user-friendly UI/UX, which could be used by the entire organization easily.

The product suite has 10 modules.

- Product management module
- Media management module

- Translation module
- Corrections module
- Publishing module
- Projects management
- Tasks management module
- Catalogue management module
- Administration and management module
- InDesign broker module

Some salient features of the modules are:

A. Product Management System:

- This module helps the client to manage product information from sources like SAP and ERP systems which help enrich it with images and documents.
- The admin can maintain a master product database with price options and manage variations of the same product. The external system syncs the auto and manual data.
- The admin can track composite product baskets created from various individual ones.
- The system helps cross-sell products by exporting product data to external eCommerce systems like wooCommerce and Amazon shop from configurable channels.
- The client can manage product data with texts, links, and images for marketing campaigns and export marketing campaign sheets using custom designs.

B. Media Management System:

- The media system stores all digital data in a centralized system. The admin can access and upload data from anywhere in the globe.
- The administrators can schedule automatic backups. Additionally, they can preview, download, and email all documents to concerned stakeholders.
- The system helps configure media collections to process, convert, filter, and fetch media metadata. The admin can manage groups of media files as collections and assign access rights for an individual user or a group.
- File formats supported - JPG, PNG, GIF, TIFF, TXT, X/HTML, XML, XMP, DOC/X, PPT/X, ICO, RTF, PDF, PSD, PSB, AI, INDD, EPS, LOG, MNG, ODG, ODP, PDD, PICT, PGM, RAW, SVG/Z, PRN, VSD, ZIP, MP4, MP3, TAR.

C. Translation module:

- This module can instantly translate the documents into the desired language available.
- External applications like Trados and across were integrated into the main application.
- The admin can quickly preview the translated and InDesign document.

D. Corrections module:

- This module helps to correct and manage comments directly on the document.
- The admin can track corrections history and preview the corrected document. Additionally, rollback options are available.
- The access is available to only a specific type of user and is reviewed and approved by certain users based on hierarchy.

E. Publishing module:

- This module helps publish digital content and print-ready documents for every supported language.
- It helps the admin to order prints, dispatch, and manage costs. They can link the InDesign template to product and media data sources.
- Once the template is defined, product and images data can be printed from the product and media management system.
- It helps to reduce production costs by sharing a similar InDesign license with multiple users.
- It helps to integrate with external entities like franchises, retailers, etc.

F. Projects management module:

- This module helps to manage products in different stages of processing.
- The admin can manage campaigns, products, project status, and order notifications.
- The senior management can track all the existing marketing processes quickly and provide interdepartmental approvals wherever needed. Additionally, they can view the to-do list with their respective status.

G. Tasks management module:

- The tasks management module helps the admin track the dashboard and manages all running or scheduled tasks. It helps them to easily navigate to different entities and share notifications with multiple users.

H. Catalogue management module:

- This module helps the admin to quickly catalog, datasheets, campaigns, and marketing brochures.
- The team integrated this model with product and media management systems to generate high-quality rich documents for market presence.

I. Administration and management module:

- This module helps to configure the behavior of the entire application.
- Only Administrators can access this to configure individual modules. They can switch to any user to debug user issues.
- Multiple users have access privileges to independent modules based on their roles.
- Languages and clusters can be managed in this module.
- Web texts management was implemented to handle access to the application in various languages.
- Tenant's management was integrated with tenant-specific configurations in the SAAS environment.

J. InDesign broker module:

- This module helps the application to communicate between publishing modules and InDesign servers.
- The admin can manage InDesign licenses and connect them to multiple servers. Additionally, the module can also manage deadlocks and handle request queues.
- They can lock or unlock documents under process and generate low-quality live previews while designing an InDesign template. The high-quality documents are generated by processing documents in the InDesign server.
- This module is capable of handling entire documents, single spreads, or blocks for processing.
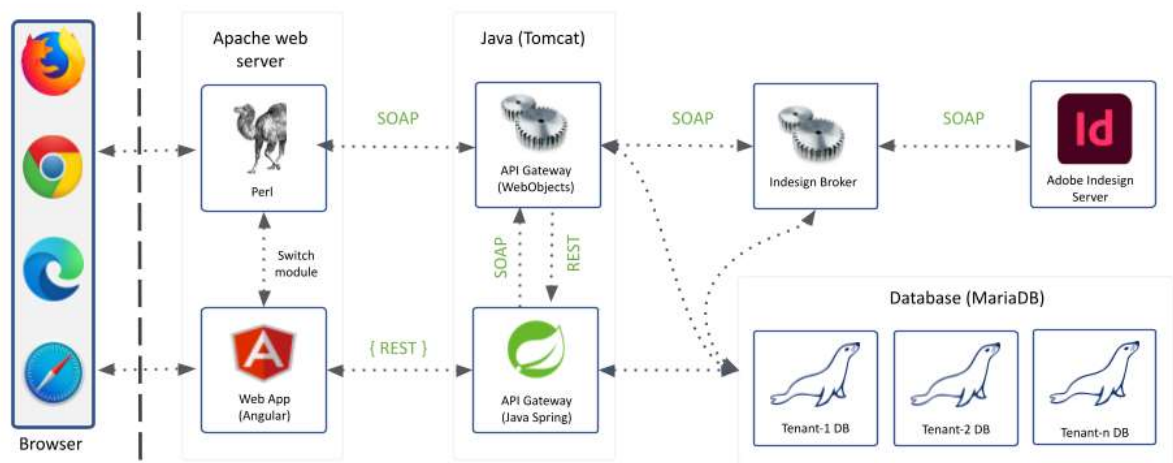
AR Application:

- The team implemented AR Capability for both IOS and android to provide a rich experience to static content. This application renders dynamic contents like text, image, audio, video, and buttons to the static published content.
- It enables the published documents to go lively by rendering dynamic, rich marketing content on top of the recognition area when scanned using the application.
- It helps render different experiences for the same target for multiple countries and locales.
- It internally connects the product management system and storage management system to handle products and storage requirements.

Architecture

AR APPLICATION ARCHITECTURE
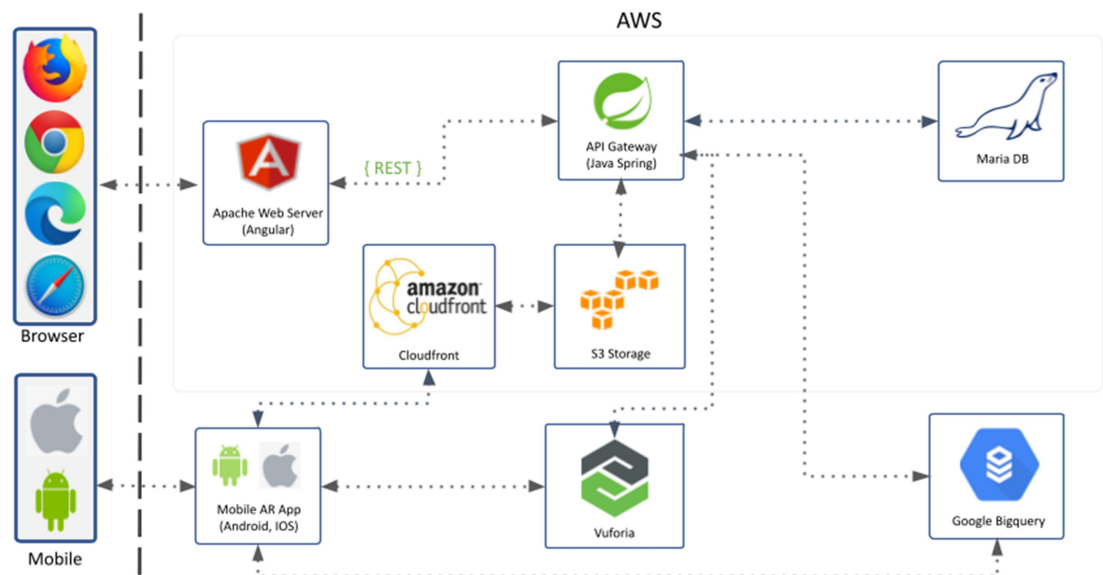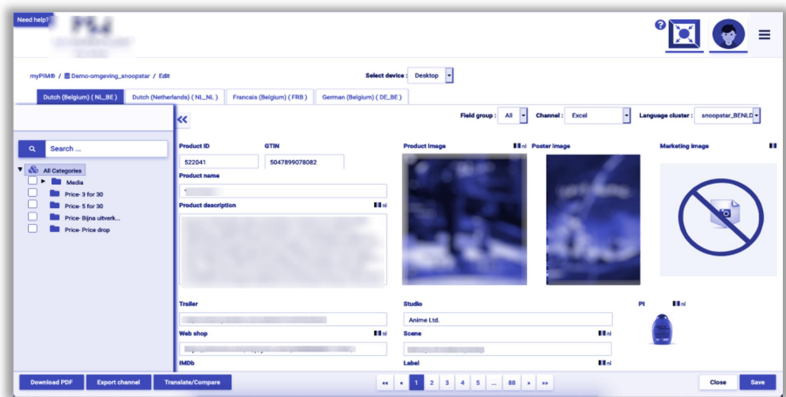

PUBLISHING APPLICATION ARCHITECTURE

Workflow

PUBLISHING APPLICATION INTERNAL WORKFLOW

PUBLISHING APPLICATION WORKFLOW
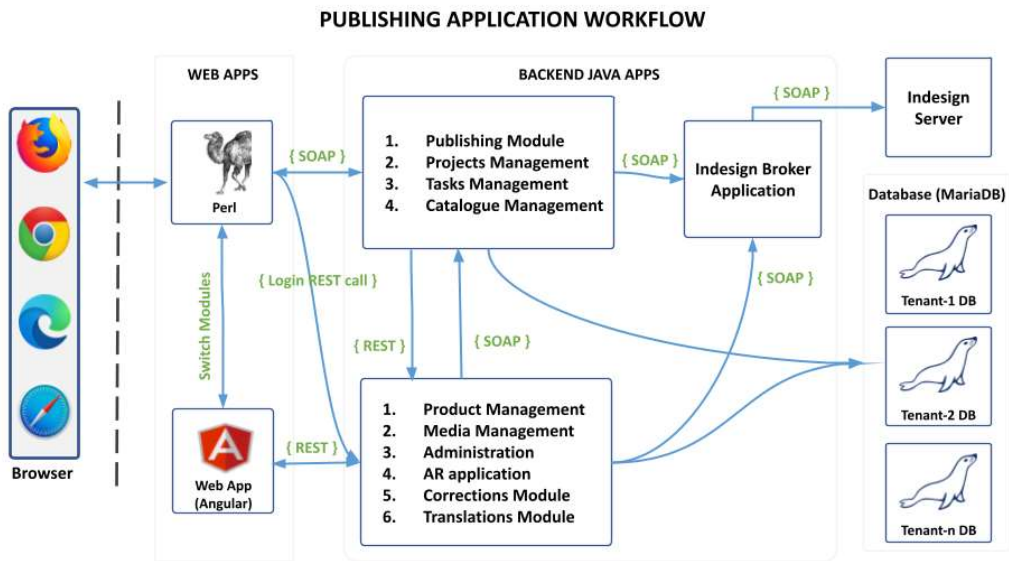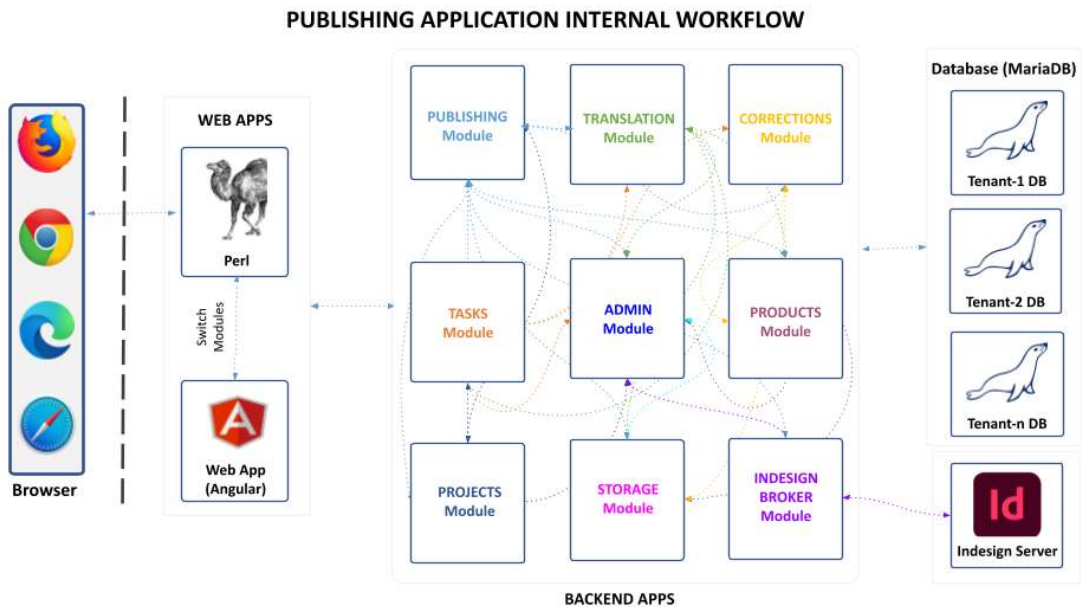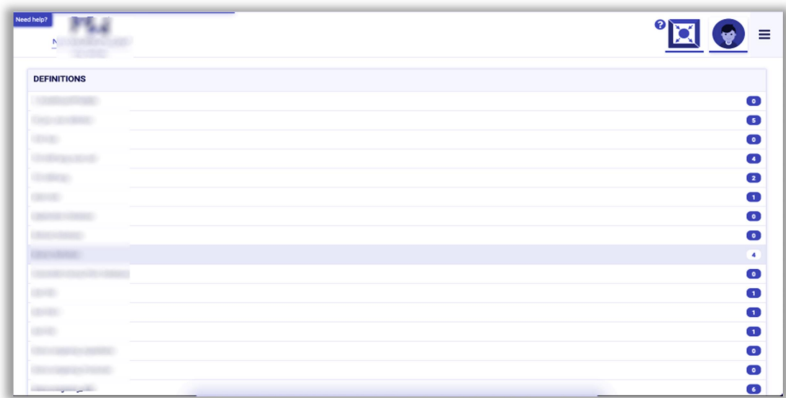
Screenshots

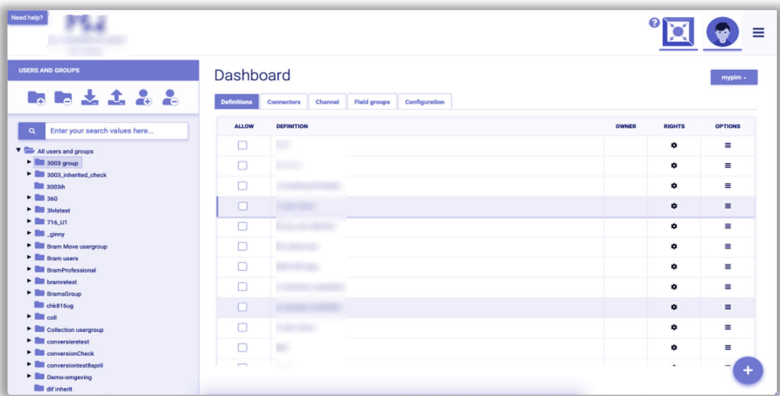**Screenshot 1:** Product Definition Listing
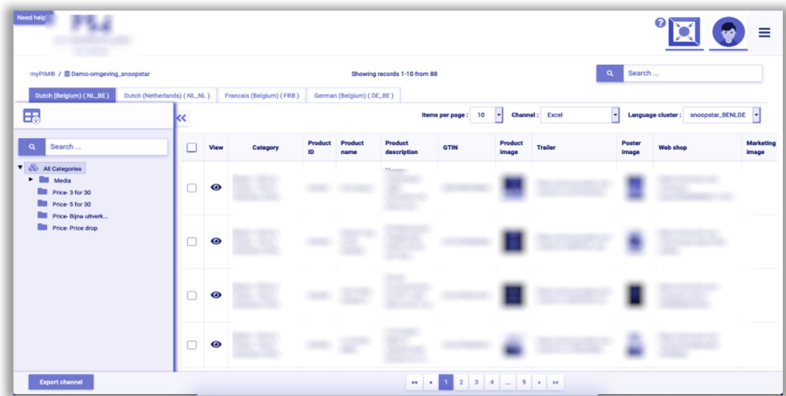
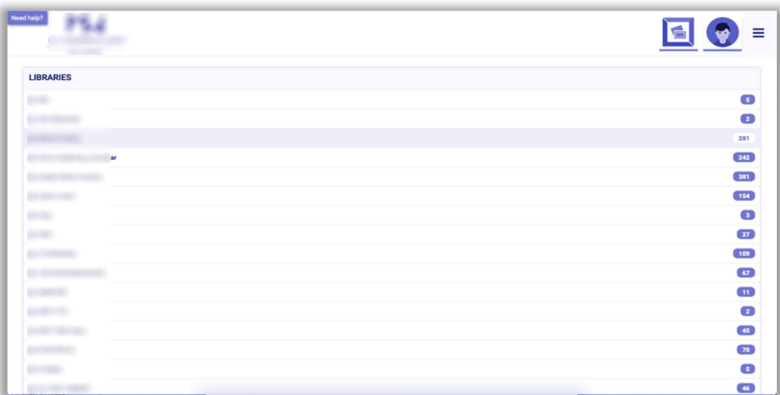**Screenshot 2:** Product Listing

Screenshot 3: Product List

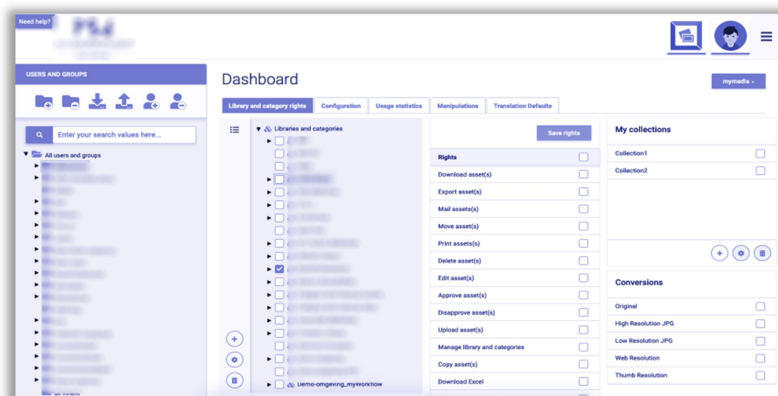**Screenshot 4:** Product Edit

Screenshot 5: Product Application

Screenshot 6: Media Library List
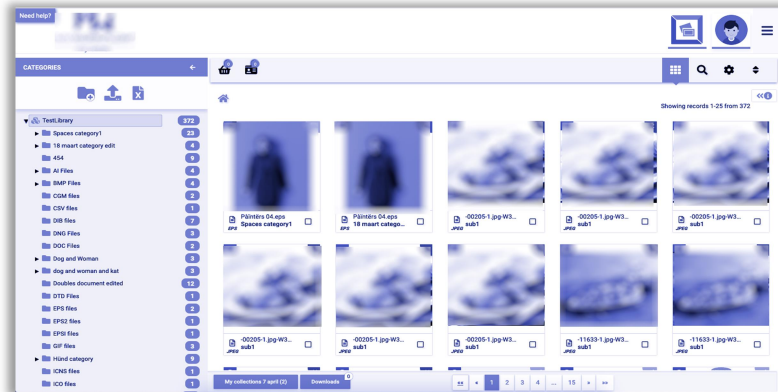
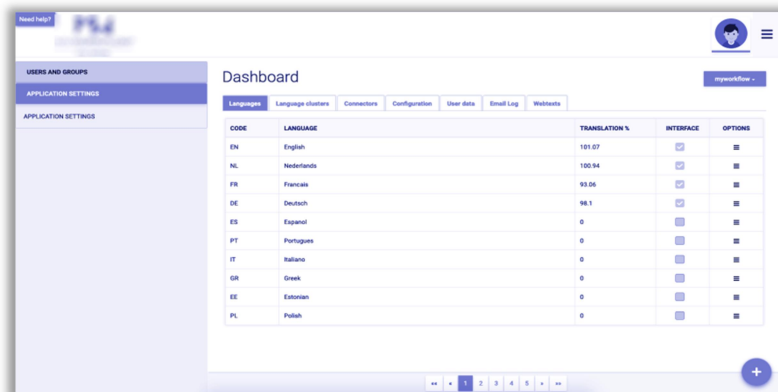**Screenshot 7:** Media Management

Screenshot 8: Media app administration

Screenshot 9: General administration