

# iText DITO 2.0 (MVP)

## Release Preview Guide

March 2021

Disclaimer - This Release Preview Guide contains highlights that are expected to be included in the next release of iText DITO. It is not meant to be complete, nor does it guarantee that all of the listed items will be fully implemented.

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## Introduction

We are excited to announce the general availability of iText DITO 2.0 (MVP) on March 30, 2021. This release marks the introduction of the iText DITO Manager component, which brings a workspace control room experience and a central repository for your templates, data collections and resources. The iText DITO Editor component has been optimized to integrate with the Manager experience and it received a UI make-over as well as some interesting new features. The PDF producer API has also been optimized to integrate with iText DITO Manager. For the future of iText DITO, we have chosen to focus on further development of the Dockerized REST version, deprecating the native Java flavor of the SDK.

### Manage Your Workspace

iText DITO Manager introduces the concept of a workspace in which you store and deploy templates, data collections and additional resources. The workspace manages users and security roles, connected SDK instances and your template promotion pipeline.

### Manage Your Data

In the data management area of iText DITO Manager you can create and maintain re-usable data collections. These are data structures, extracted from JSON files you upload, that can be associated with one or more templates. To preview the templates with relevant data at design time, you can add data samples to data collections. There's versioning, permission management and dependency control on all data collections you create.

### Manage Your Templates

iText DITO Manager mainly revolves around template management. In iText DITO 2.0 there are four different types of templates: the self-explanatory standard, header and footer templates, and compositions, which are combinations of the other three types of templates. Compositions allow you to reuse headers, footers or body sections across a variety of different output documents. Just like data collections, templates have a full audit trail, permission settings and a dependency list. You can promote them from dev to production along the different stages of your workspace's promotion path. As you do so, they are automatically deployed to the connected SDK instances.

### Manage Your Images, Stylesheets and Fonts

Templates often contain more than just content. Layout resources like images, stylesheets and fonts are also managed in iText DITO 2.0. That means that they can be reused across multiple templates. From a content management perspective that allows you to update the look and feel of multiple templates at once, by updating the images and styles they share.

## iText DITO Editor - Revamped and Extended

iText DITO Editor has received a full make-over. All familiar functionalities are still there and easier to use than ever before. But most of all the experience has been optimized to co-exist with iText DITO Manager. The 2.0 release also contains new capabilities, such as automated table of contents and bookmark creation based on template headings.

## iText DITO Manager

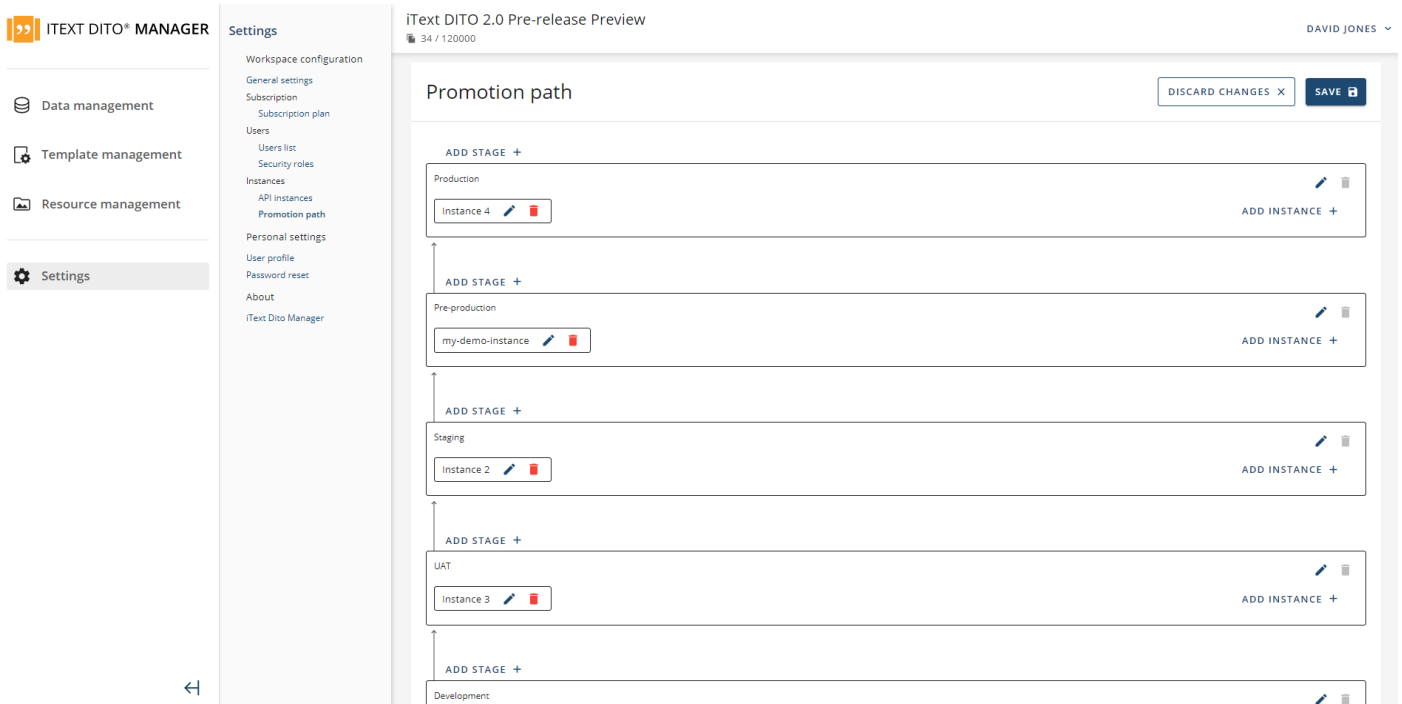
iText DITO Manager is a new component in the iText DITO framework, that offers a central control center for your templating environment. It allows you to manage a workspace, users, templates and all their dependencies. It gives system admins the tools they need to maintain in control of your PDF generation space, and it allows business users to manage content and layout in a more organized way.



## Workspace Controls

iText DITO templates and the data connections and resources they need, are managed in a work environment, called a "workspace". The workspace settings area in iText DITO Manager contains the following sections:

- **Workspace settings:** Control the name of your workspace and set the default time zone for all timestamps the system generates, such as creation and modification times of items;
- **Subscription management:** Upload your license and monitor how many PDFs you have left on your current volume subscription, or check your next renewal date;
- **User management:** Create and manage users. You need to have a user profile to open, edit and deploy templates and their dependencies. To generate PDFs, you don't need a user profile;
- **Security role management:** Users have permissions based on their roles. There are three system security roles: global administrator, administrator and template designer. You can add custom roles to give certain users permissions on specific items only.
- **Instance management and promotion path designer:** Connect SDK instances to your workspace and make a visual representation of your promotion pipeline with the graphical promotion path designer. Use it to promote templates from dev to production, and through all the stages in between.

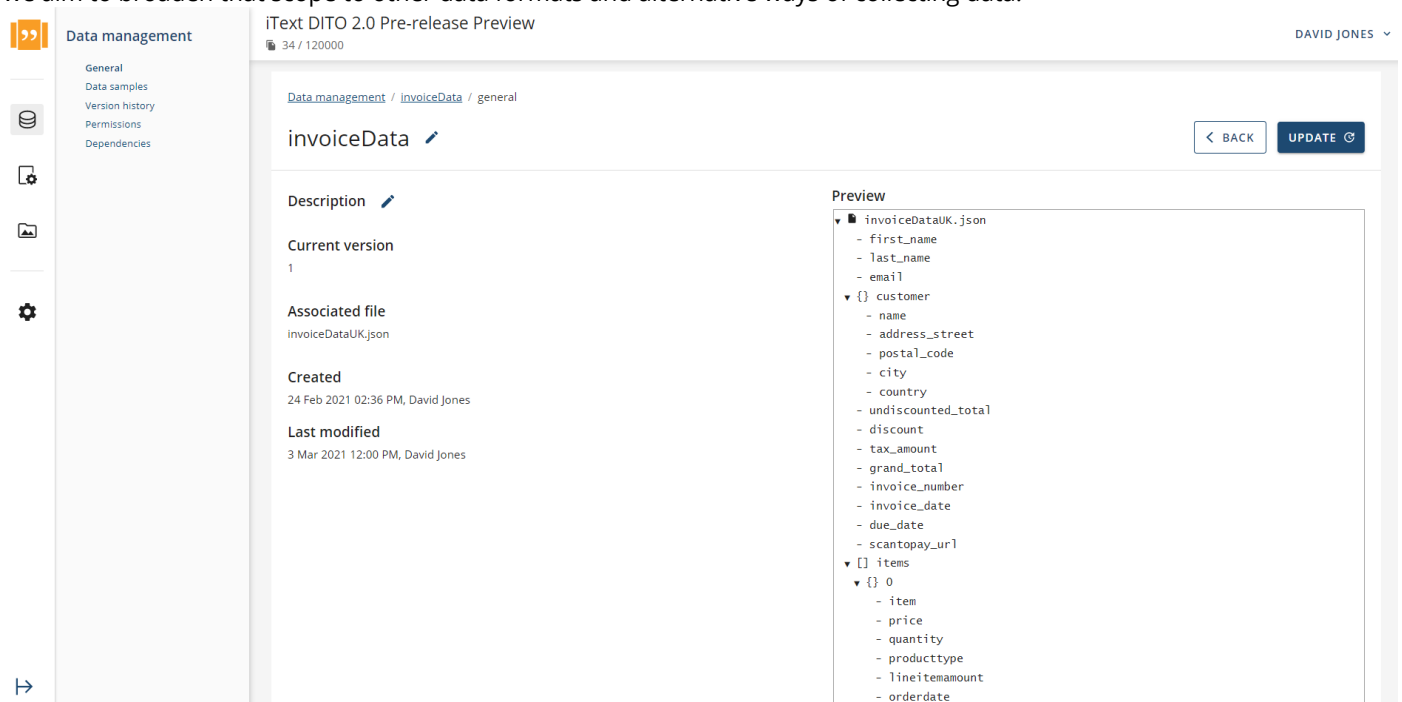


## New Management Experience for Data Collections

Instead of copying and pasting JSON code into iText DITO Editor, the new version has a centralized approach to data collection management. In the data management section of iText DITO Manager you can:

- **Create data collections:** Upload a JSON file to create data collections. Data collections can have data samples which can be used to preview templates with relevant data;
- **Consult version history:** Every time you edit a data collection, a new version is created. You can consult the version history and roll back to an earlier version of the data collection if required;
- **Set permissions:** If modifying the data collection should be restricted to a subset of your users, you can set collection-specific restrictions for custom security roles. Administrator roles always have access to all items;
- **Check dependencies:** In the dependencies table you can see which templates are associated with the active data collection. You cannot delete data collections that have dependent templates.

The MVP release of iText DITO 2.0 expects the import of a valid JSON file as a source for a data collection. In future releases we aim to broaden that scope to other data formats and alternative ways of collecting data.



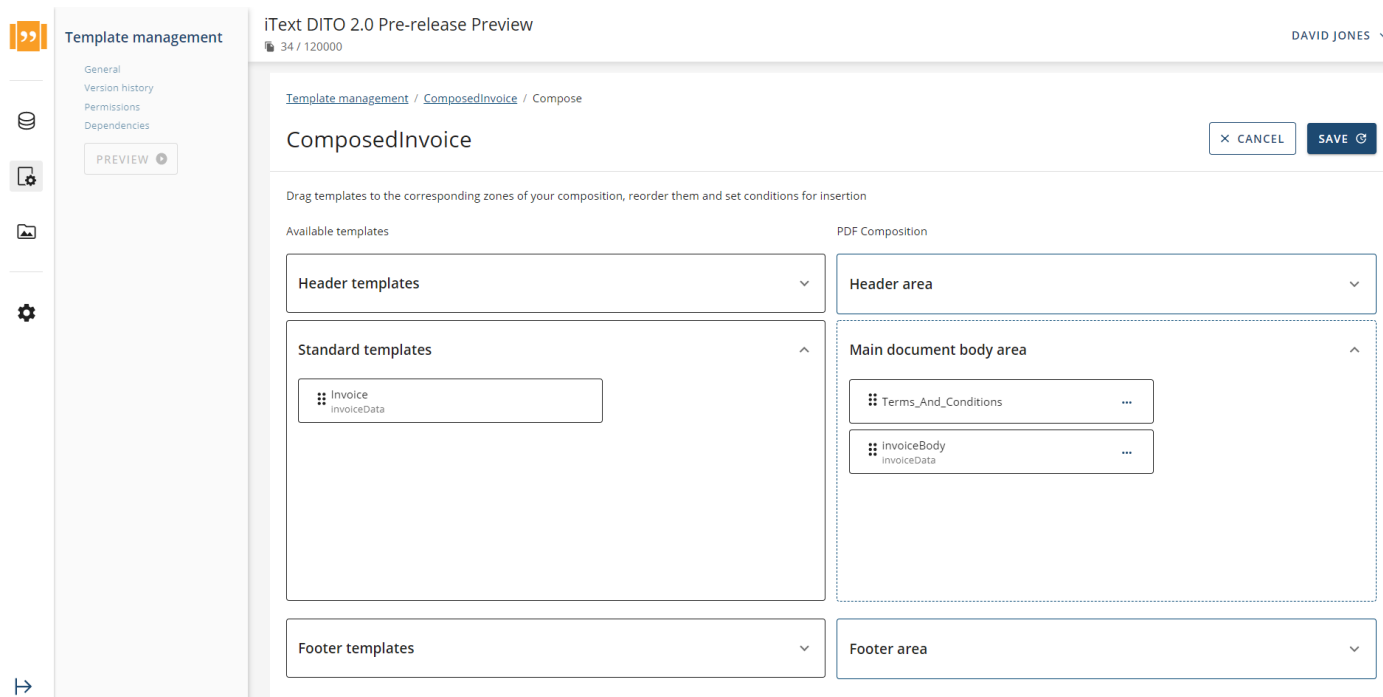
## New Management Experience for Templates

Whereas earlier versions of iText DITO required some sort of file management by the customer, iText DITO 2.0 introduces its own centralized, repository-based template management. There are now four types of templates:

- **Standard templates:** Standard templates fill the main body section of a document;
- **Header templates:** Header templates fill the top margin section of a document. They are repeated on every page of the document;
- **Footer templates:** Footer templates fill the bottom margin of a document. They are repeated on every page of the document;
- **Compositions:** Compositions are combinations of header, footer and standard templates. A composition can have one header, one footer and multiple standard templates.

In the template management section of iText DITO Manager you can:

- **Create templates:** Create templates of any of the aforementioned types and associate them with a data collection;
- **Update templates:** When you update standard, header and footer templates, iText DITO Editor will open up from within the Manager experience. When you save and commit your changes, the template will be updated to a new version and stored back into the central repository. When you update compositions, the built-in composition wizard will open inside iText DITO Manager, so you can drag and drop templates to the corresponding document sections.
- **Consult version history and promote/undeploy templates:** Every time you update a template, a new version is created. You can consult the version history and roll back to an earlier version of the template if required. You can also promote or undeploy templates from the version history tab.
- **Set permissions:** If modifying the template should be restricted to a subset of your users, you can set template-specific restrictions for custom security roles. Administrator roles always have access to all items;
- **Check dependencies:** In the dependencies table you can see which data collection and resources are associated with the active template. You cannot delete templates that have dependent compositions, or promoted versions.

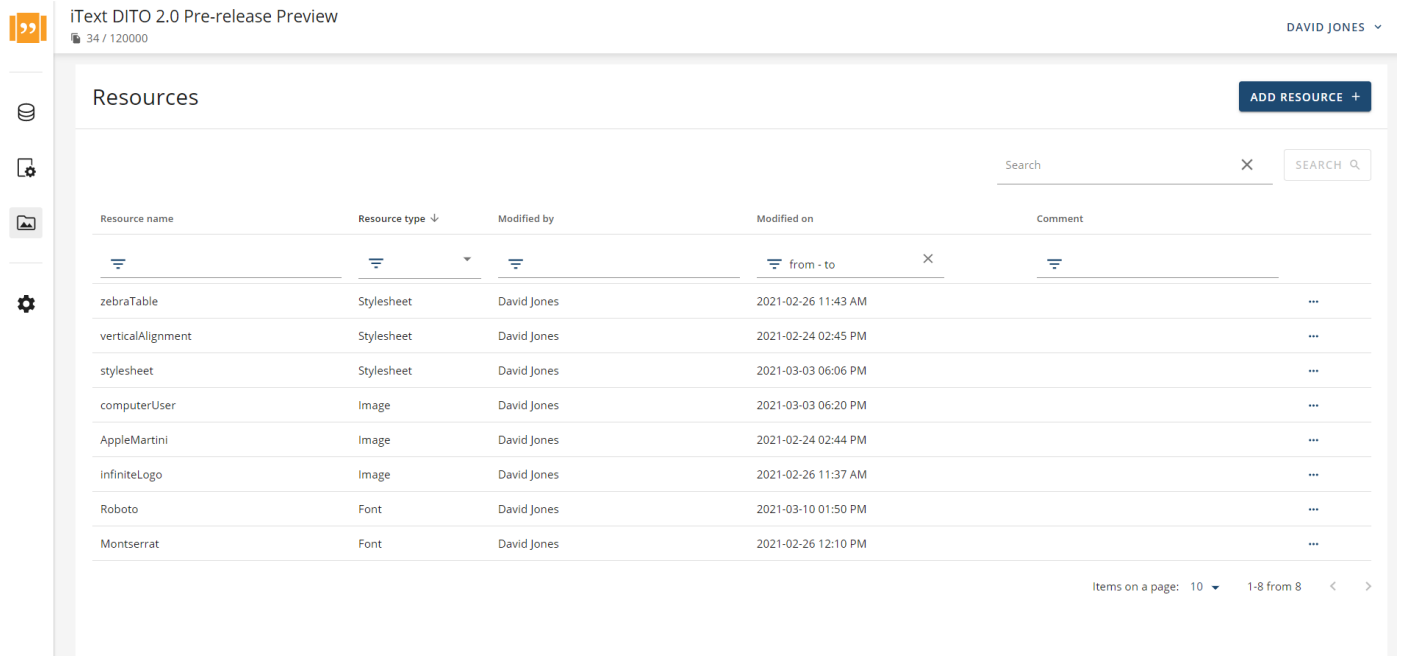


## New Management Experience for Resources

iText DITO 2.0 also introduces central management of resources, such as images, stylesheets and fonts.

- **Images:** Central management of graphic resources allows for better image library management and more control over where images are used. This centralized approach lets you update all of the templates that use a certain image at once. This may come in handy when you need to update templates with a new company logo for instance.

- **Stylesheets:** For less common design challenges, iText DITO Editor continues to support the use of cascading stylesheets (CSS). Also these stylesheets are managed centrally. In the Editor you can link a stylesheet to the active template and select the style you want to use.
- **Fonts:** With iText DITO 2.0, the days of CSS-based custom font declarations are finally behind us. Do you want to use a custom font? Then simply upload the font archive to iText DITO Manager and it will match discovered font files with supported font faces and create a custom font resource. That's all you need to do to make the new font available to all your templates. Please make sure though to only use fonts for which you hold a valid license or fonts that can be used more freely.

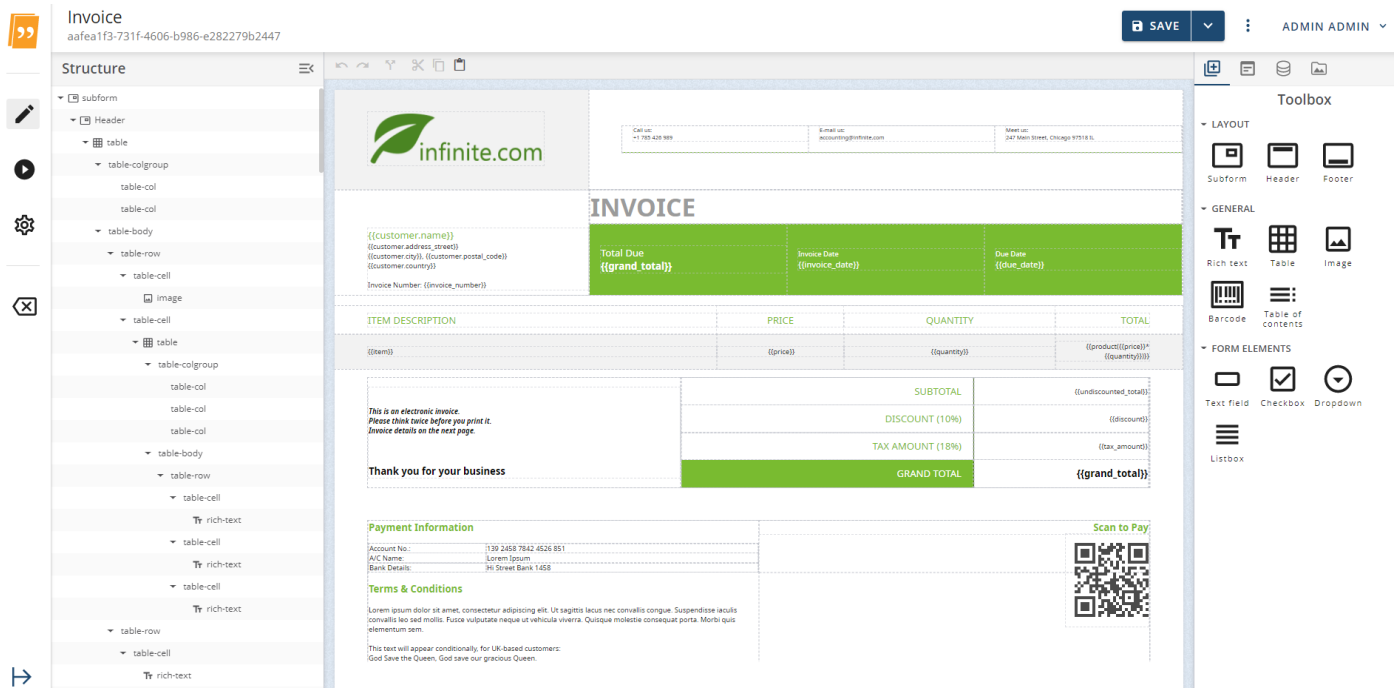


## iText DITO Editor

### User Interface Makeover

iText DITO Editor 2.0 has received a full UI makeover, mostly to integrate it seamlessly with iText DITO Manager. The most remarkable UI improvements are:

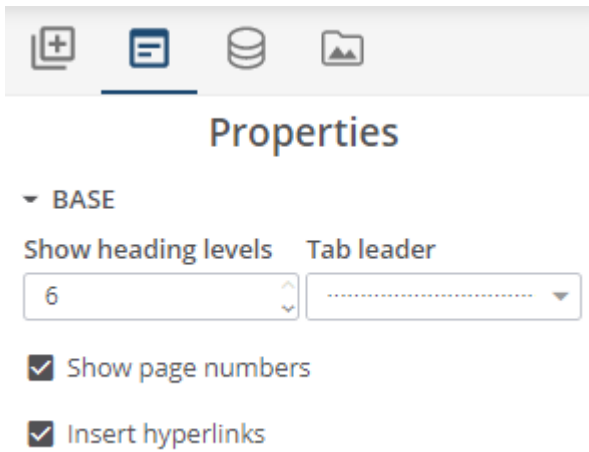
- **Collapsible left side panels:** The side panels on the left can be minimized or fully collapsed to free more screen estate for the template canvas. Also, the Template Elements panel, now renamed "Structure" can be easily expanded to the full height of the screen, which allows for easier template navigation;
- **Tabbed experience for Toolbox, Properties, Data Binds and Resources:** Each of these items have their own tab in the resizable panel to the right of the canvas, which allows for a more focused template design experience;
- **Workspace header:** iText DITO inherits the workspace header controls from iText DITO Manager, displaying the name of the template, the workspace and the active user.



## Feature Enrichments

iText DITO 2.0 also introduces a number of feature enrichments for iText DITO Editor:

- Automated table of contents creation:** The table of contents of this very document is autogenerated with iText DITO. A TOC can be added to a template straight from the Toolbox. The entries in the TOC are based on the document headings, taking into account any conditional visibility and data binding logic you have built into these headings. You can define whether to include page numbers and links to the included headings and you can choose from a series of tab leader visualizations to style your table of contents;
- Automated bookmarks creation:** iText DITO 2.0 can also use the document headings to create bookmarks. This feature contributes to the accessibility of the generated PDF documents. Although not a hard requirement, the PDF/UA specification recommends including bookmarks in your PDFs. iText DITO 2.0 autogenerates those. The bookmark creation checkbox is located in the Template Settings section;
- Comment and commit:** Templates can be opened in iText DITO Editor with a simple click from the template's detail view in iText DITO Manager. When you are done editing the template you can choose to save and commit your changes. A new version of the template will be created, containing your changes, and you can leave a version comment;
- CSS word-break support:** iText DITO Editor now also supports word-break in CSS. This means that longer text strings can be broken to continue the next line at the edge of a containing box, such as a rich text element with a fixed width, a subform or a table cell;
- Minor improvements:** As well as these feature enrichments a number of smaller improvements are part of the iText DITO 2.0 release, including several performance enhancements, improved copying and pasting, case-insensitive condition evaluation and much more.



## iText DITO SDK

### Integration with iText DITO Manager

Updates to the iText DITO SDK mainly revolve around integration with third party content providers such as iText DITO Manager. Two main areas of improvement are:

- **Application configuration:** in iText DITO 2.0 you can set up a YAML configuration file in the config folder of the SDK container. In this file you can enable or disable interaction with third party content providers and control timeout settings for template operations. You can also use this file to set a maximum retention time for PDF production reports;
- **Authentication:** in iText DITO 2.0 you can set up a security proxy sidecar container to handle authentication of requests. The image for such containers will be available through Docker Hub. In the config folder you can set up a YAML configuration file that describes an HTTP header and a token that is expected on every request to one of the SDK's endpoints.

### Deprecation of the Native Java SDK

In light of the containerized approach to deploying the new iText DITO, support for the native Java version of the iText DITO SDK will not be extended to iText DITO 2.0. iText will continue to support the native Java flavor of version 1.5 for a period of time however.

## Deployment and Migration

iText DITO will be deployed in a series of Docker containers, for which images will be available through Docker Hub. A standard deployment of iText DITO 2.0 contains these containers:

- One iText DITO Manager Database container;
- One iText DITO Manager Frontend container;
- One iText DITO Manager Backend container;
- One iText DITO Editor container;
- One or more iText DITO SDK containers;
- Optionally, one or more iText DITO Security Proxy sidecar containers.

A migration guide to help you update from iText DITO 1.5 to iText DITO 2.0 will be available through the iText Knowledge Base shortly after the MVP release. Optimization of \*.dito template project files may be required prior to import into your iText DITO 2.0 Manager environment. But the import process will automatically create data collections, samples, templates and resources (images and stylesheets) from your optimized 1.5 template projects.