OVERVIEW

Publish is the important part of the ODA Core Platform Technology Stack. The Publish SDK provides a convenient way of publishing to PDF. It is filled with rich abilities from simple, but effective export features, to powerful API, that allows to manipulate with what should be published.

The key feature of Publish SDK is that it can be used in any other ODA product to publish to 2D or 3D pdf. In other words, if something can be loaded as a model, it can be published as PDF: .dwg, .dgn, .rvt, .ifc and others. Publishing from OpenCloud is supported as well. This part of ODA SDK can be used for publishing any CAD model in many ways as well as standalone product for creation of exciting documentation, demo and tutorial PDF's from scratch.

The Publish SDK contains the following parts: 2D PDF export, 3D PDF export, PRC API and Publish API.

PDF export is the most well-known part. You can create regular PDF files or files with embedded 3D models or even export the models into PRC stream using this export feature. The PDF export feature provides a convenient and easy way to integrate PDF publishing into any ODA product.

Using PRC API, you are able to work with PRC format files. Those files then can be embedded into PDF documents like a 3D view or saved as standalone files. The PRC API is an API that provides full-featured support for the PRC format for our members. It provides the ability to read, write, render PRC files, as well as examples for working with this format.

And finally, Publish API allows you to create fully customized PDF documents with your own structure and design. For multifunctional publishing, the SDK provides a powerful yet easy-to-use API. It allows you to create multi-page PDF documents according to your needs, with a fully customizable structure. The documents you create can contain: 3D model views, 2D drawings and their parts, 2D geometry, texts, images, UI controls on PDF page, JavaScript scenarios and animation.

PDF Export

■ GeoSpatial data

Until PDF 2.0 standard, there were only the paid extensions to support the GeoData in PDF. But in PDF 2.0, a geospatial coordinate system was introduced, to support geospatially registered content. So now ODA SDK provides export such data from drawings into pdf. From the variety of geospatial data, we can export into pdf the map and the coordinate system to provide geospatial measuring in pdf files

■ Password protection and access permissions

Enabled support for password protection and permissions for newly created PDF documents

■ Bookmarks

When we export the multi pages pdf files, especially for complex drawings or complex pdfs combined from several drawings, it may be quite hard to navigate in the resulting document. To make the navigation easier we can use the "bookmarks" feature, added in ODA SDK. For every layout, exported in pdf, a bookmark, named according to layout name, is added. When clicked on this bookmark, the pdf document will be forwarded into the corresponding page. Another possibility –is to export named views (custom views, pointed to the particular part of the drawing) as pdf views

■ Watermarks/Plot stamps

There was a possibility to add watermarks into pdf documents for quite a long time, but this year this functionality has been improved to provide more flexibility and usability for our members. Before, there were several standard pdf fonts, the user could apply. The main disadvantage of these fonts is lack of Unicode support. Now export can use the usual TTF fonts installed on the user computer. Also some new positions for the watermarks have been added, rotation and offset for watermarks has been supported too. For multipage documents, page index can also be applied to place the watermark on the particular page. Another possibility, added to the watermarks, is using pictures instead of text

■ GsCache/Pdf blocks

ODA constantly works on performance of pdf export and decreasing pdf files size. This year some improvements were added into export with GsCache/Pdf blocks, so now it works faster and creates smaller pdf files

Publish API

- **Password protection and access permissions**

  Enabled support for password protection and permissions for newly created PDF documents

- **Bookmarks**

  Supported possibility to export named views as pdf views via OdCADDefinition/ OdCADReference. Creation of custom bookmarks in the published document is also supported

- **Watermarks/Plot stamps**

  Supports adding custom Watermarks to the published document

- **PDF annotations (Sticky Notes)**

  Enabled the ability to add custom comments to the published document via PDF annotations (aka Sticky Notes)

PRC API

- Enabled support for transparency in PRC rendering

- Exporting materials to PRC has been improved

- Improved material rendering